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C. A. NEALE,

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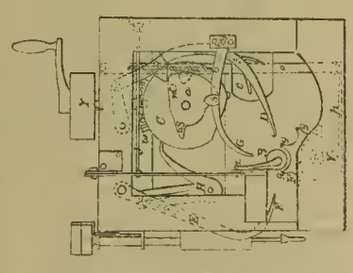
98,460. C. A. ALSING. **ASPHALT PAVEMENT.**

98,461. B. ARNOLD. **MACHINE FOR MAKING NETS.**



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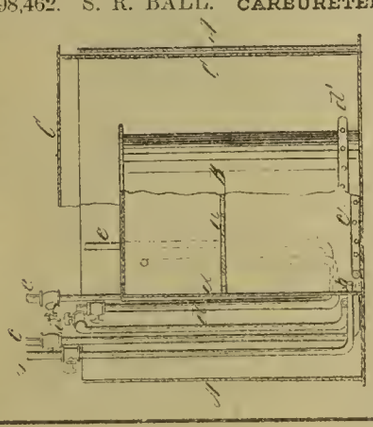
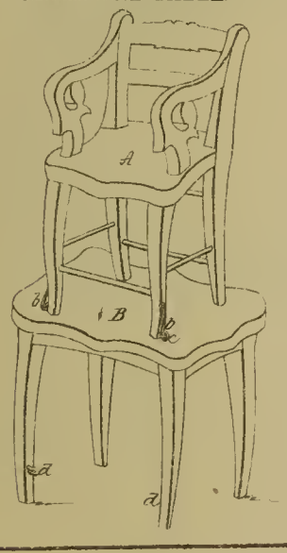
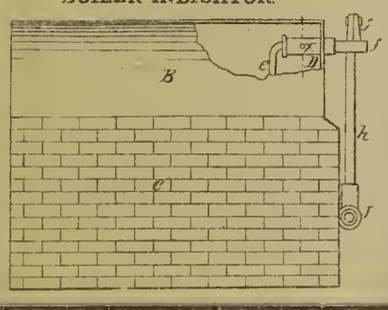


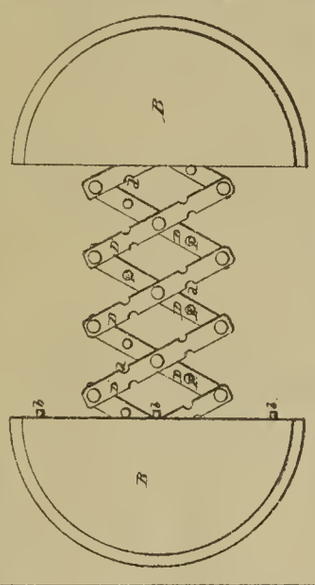
98,463. P. G. BECKLEY. **NURSERY CHAIR AND TABLE.**



98,464. W. G. BELL. **STEAM BOILER INDICATOR.**



98,465. W. J. BODA **EXTENSION TABLE.**



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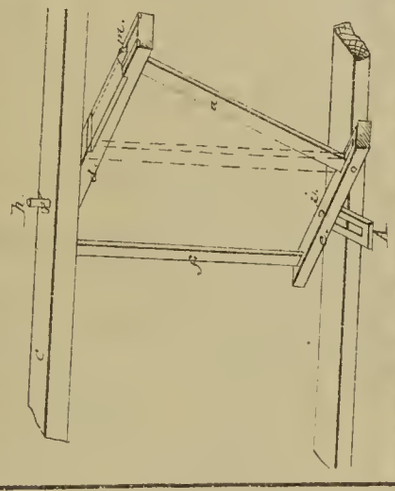

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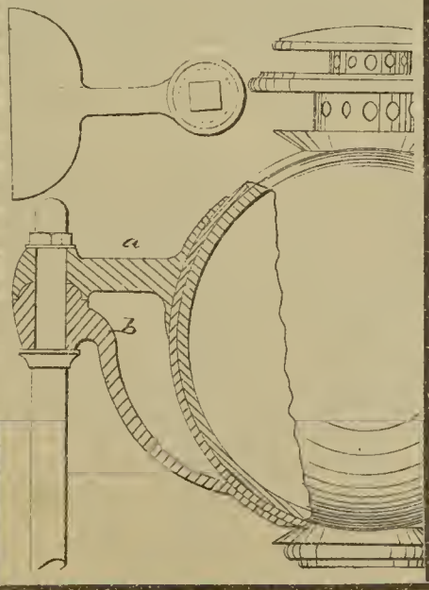
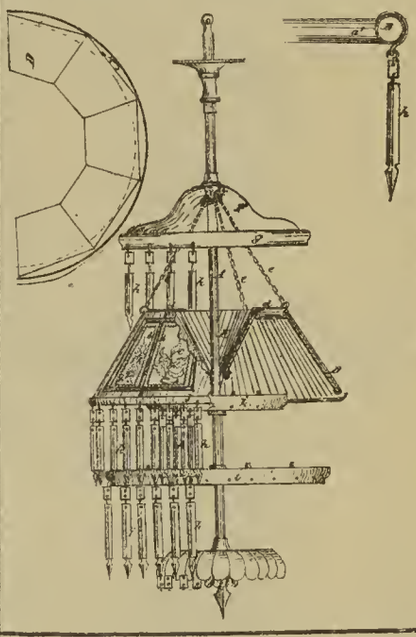


98,469. T. BUCKLEY. **CHANDELIER.**



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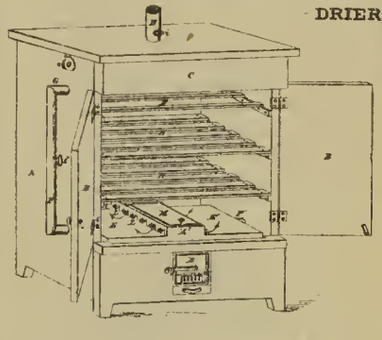

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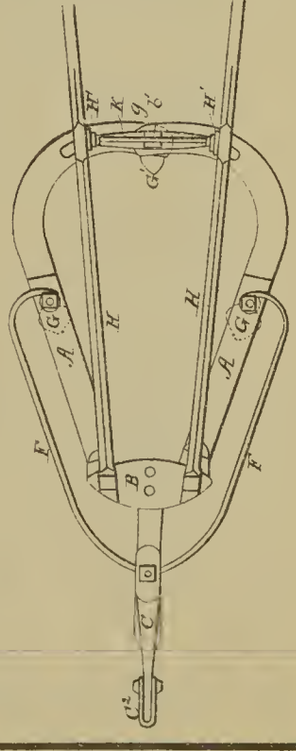
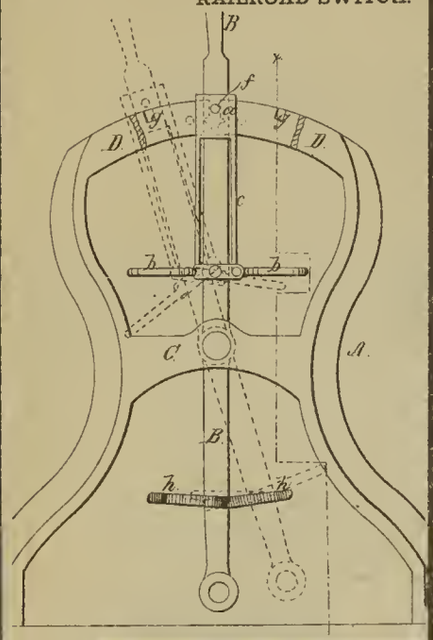
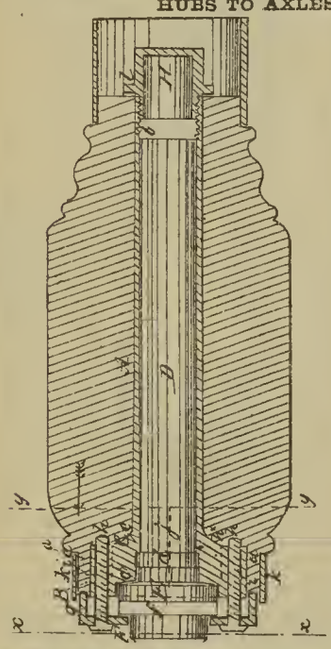


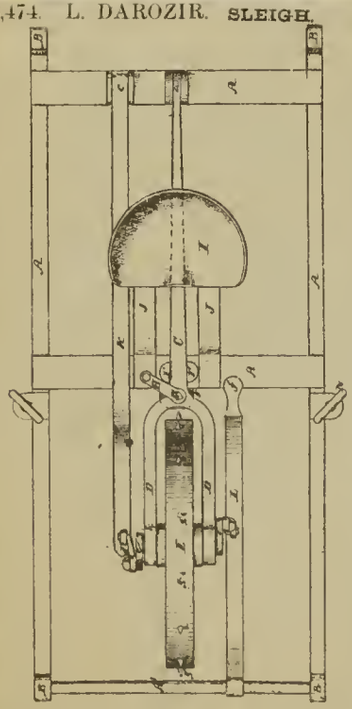
98,472. N. N. DALE. RAILROAD SWITCH.



98,473. D. DALZELL. ATTACHING HUBS TO AXLES.



98,474. L. DAROZIR. SLEIGH.



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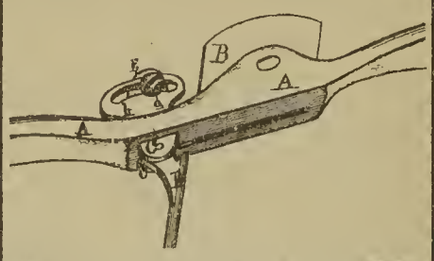
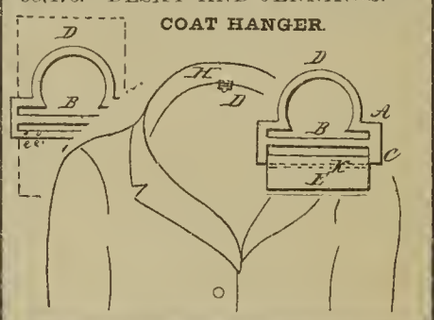


98,476. DESKY AND JENNINGS. COAT HANGER.



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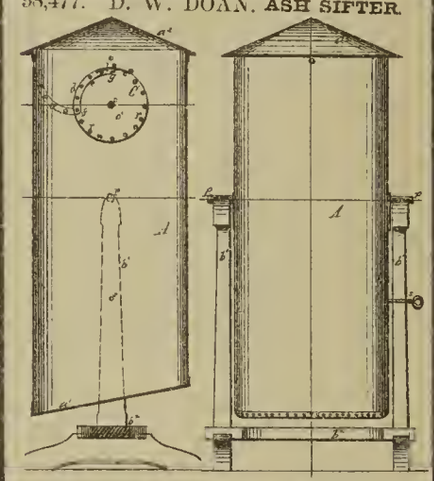
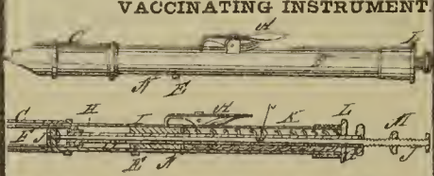
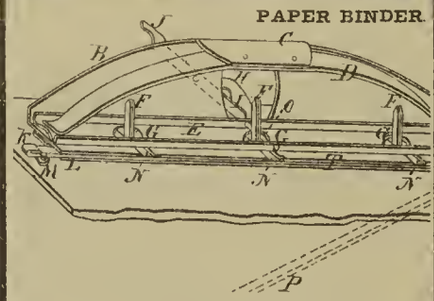


98,478. C. H. ECCLESTON. VACCINATING INSTRUMENT.

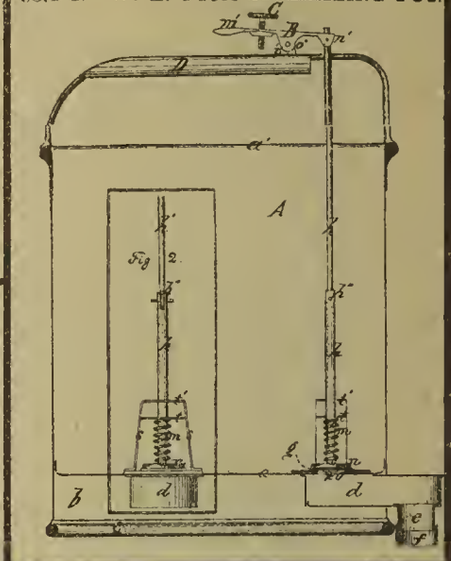


98,479. G. W. EMERSON. TEMPORARY PAPER BINDER.

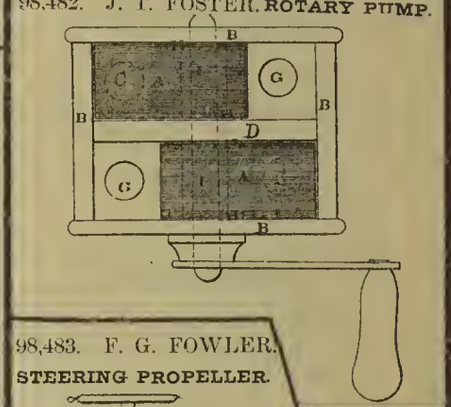


98,480. A. FARRAR. IRON PAVEMENT.

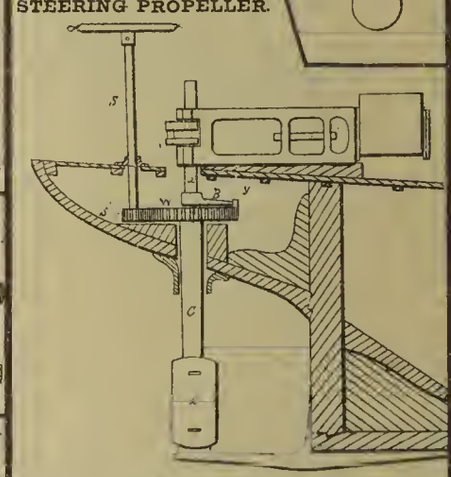
98,481. W. L. FISH SPRINKLING POT.



98,482. J. T. FOSTER. ROTARY PUMP.



98,483. F. G. FOWLER. STEERING PROPELLER.



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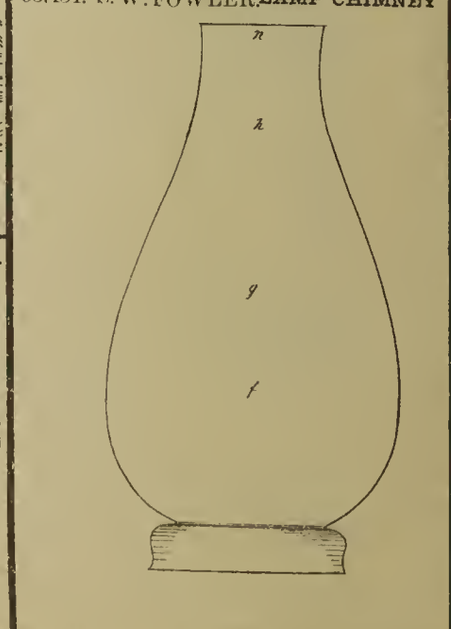

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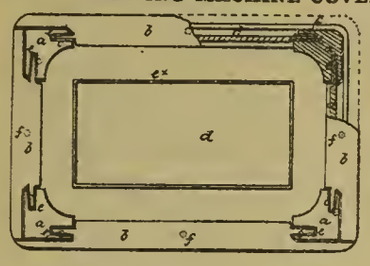

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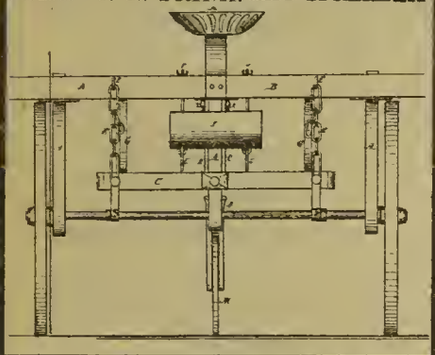

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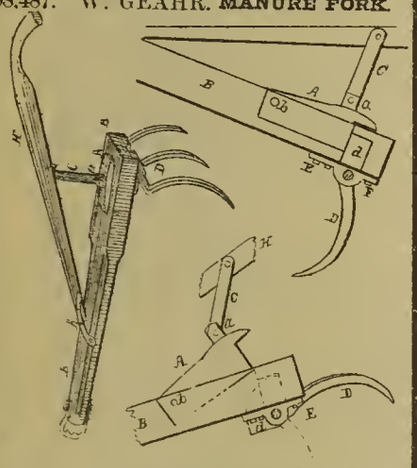

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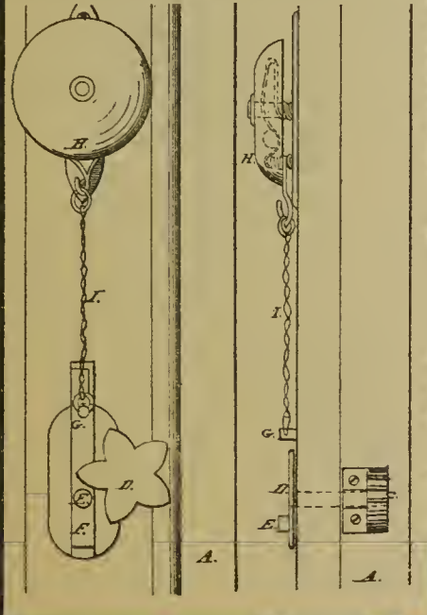

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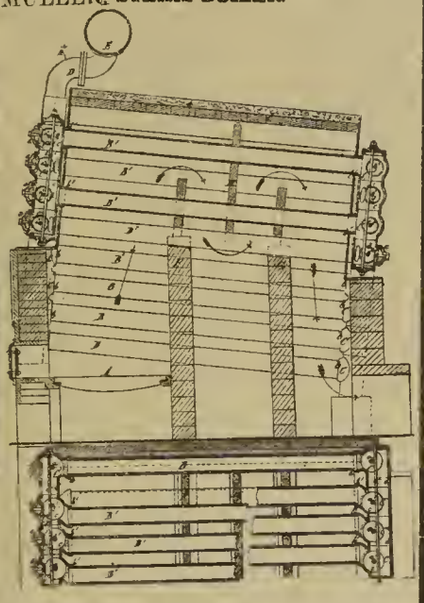

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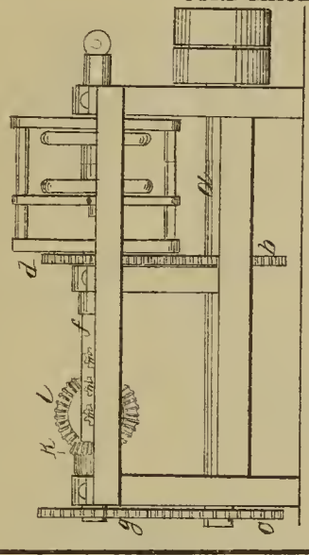

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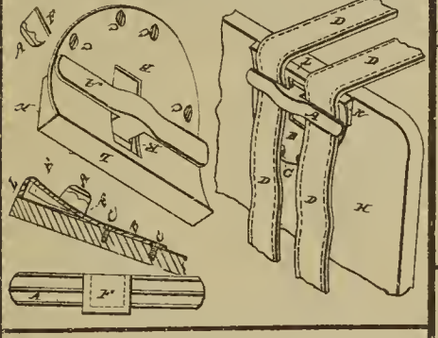

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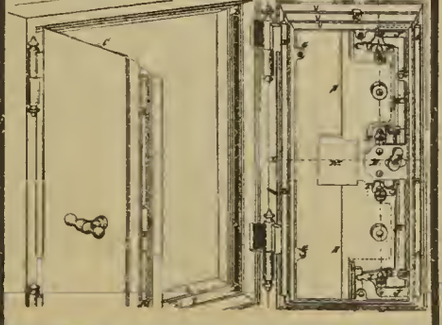

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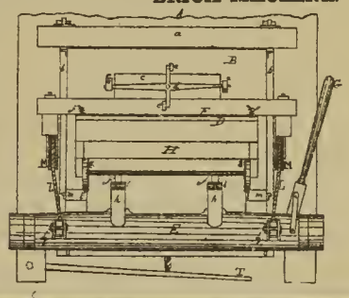

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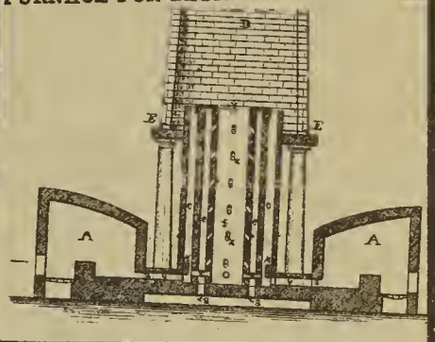

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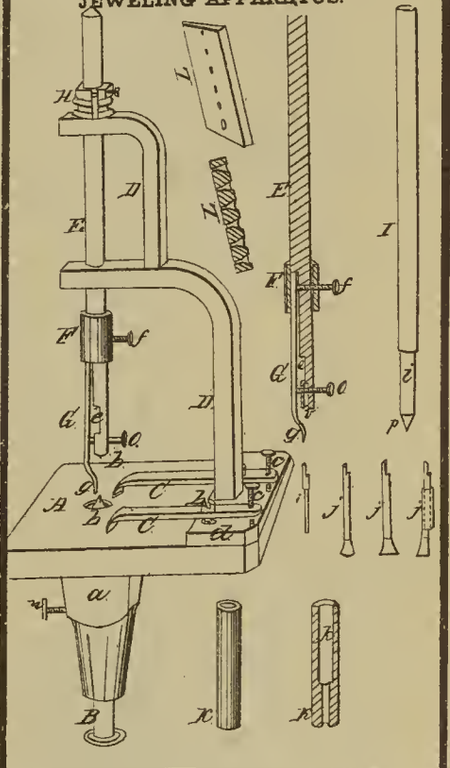

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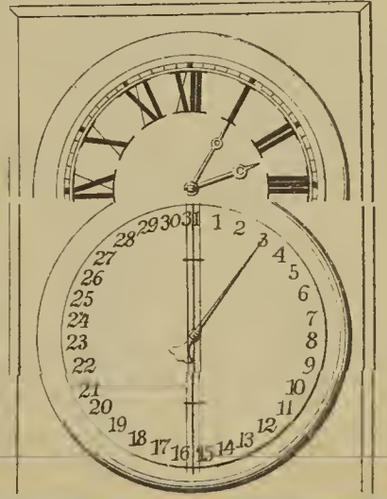

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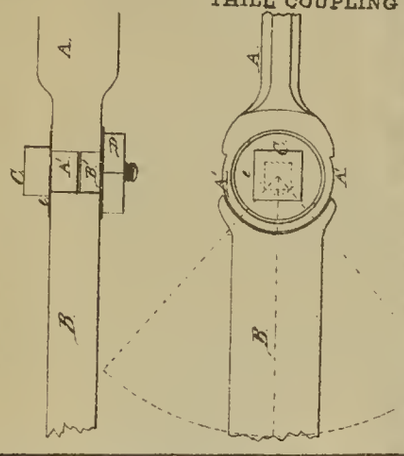

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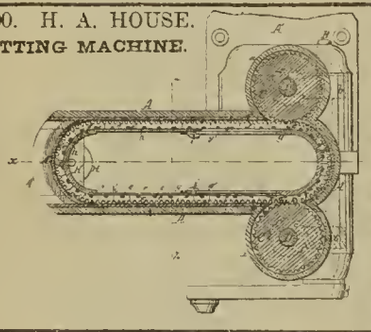

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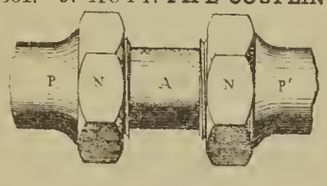

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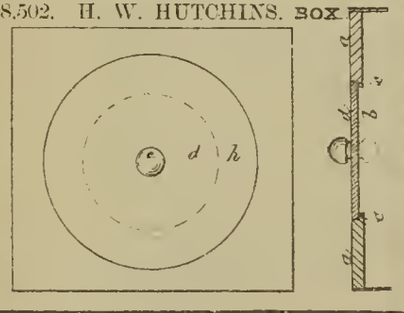

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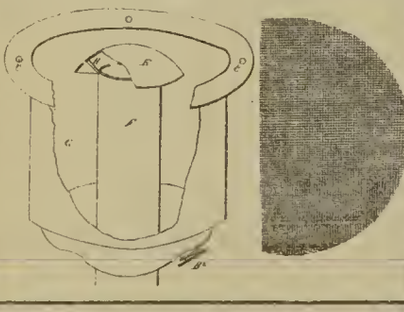

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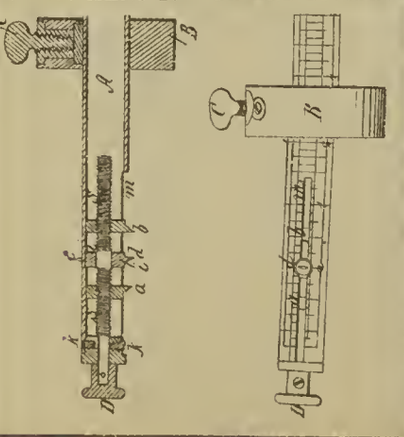

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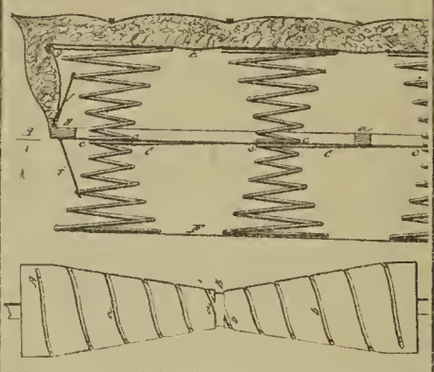
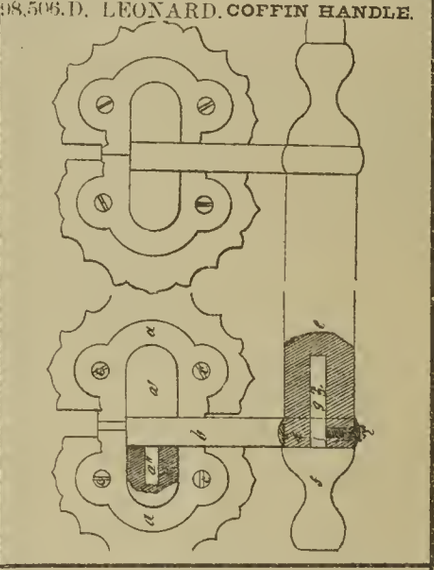
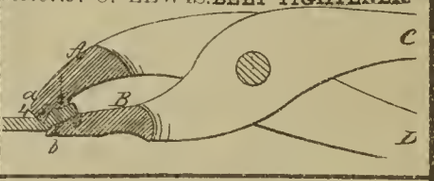


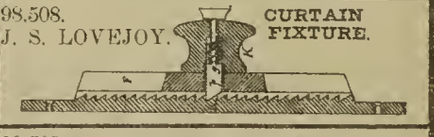
98,506. D. LEONARD. COFFIN HANDLE.



98,507. J. O. LEWIS. BELT TIGHTENER.



98,508. J. S. LOVEJOY. CURTAIN FIXTURE.



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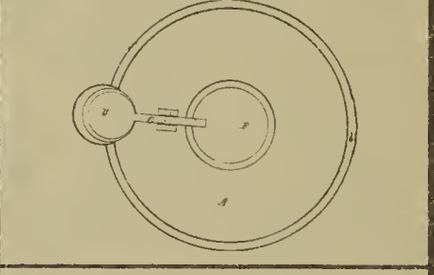

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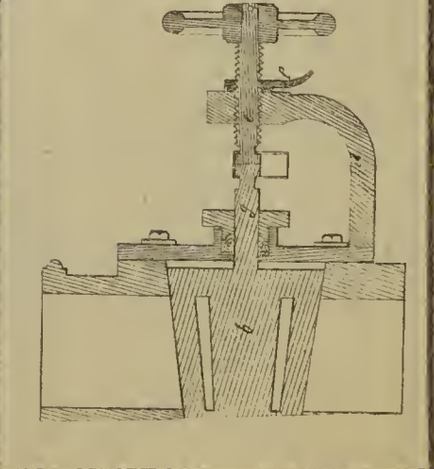

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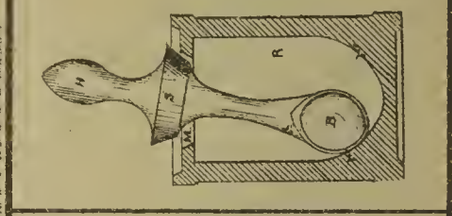
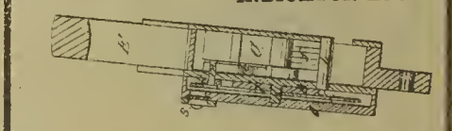
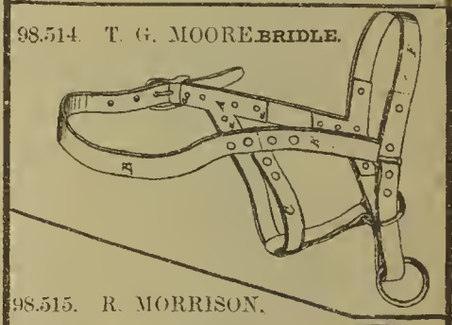


98,512. J. J. MERVESP. ATTACHING BUTTONS.

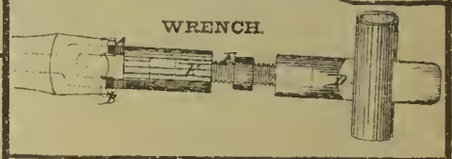
98,513. E. M. AND J. E. MIX. INDICATOR LOCK.



98,514. T. G. MOORE. BRIDLE.



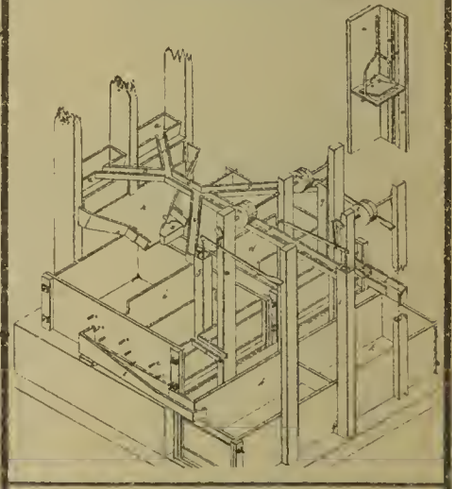
98,515. R. MORRISON. WRENCH.



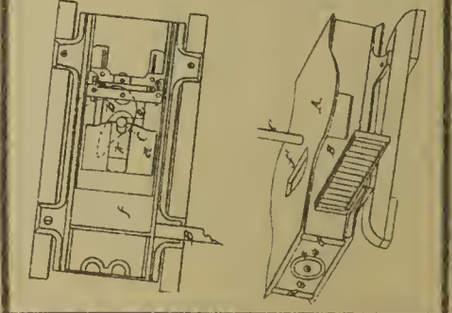
98,516. A. C. MOTT. IRON CORE FOR CASTINGS.

98,517. J. M. ORDWAY. ARTIFICIAL STONE.

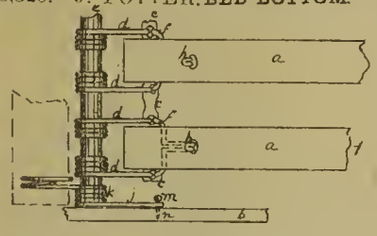
98,518. A. F. W. PARTZ. COLLECTING GOLD FROM ORES.



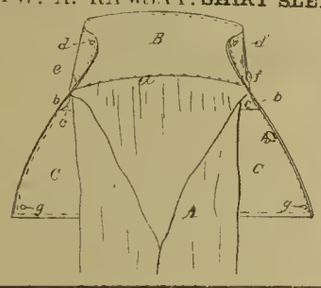
98,519. J. W. PENFIELD. TILE MACHINE.



98,520. J. POTTER. BED BOTTOM.

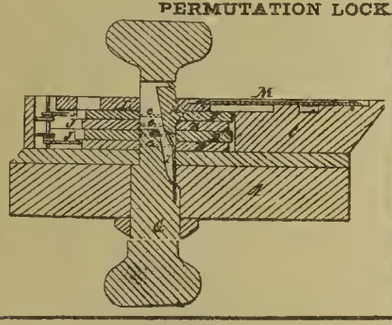


98,521 W. A. RAMSAY. SHIRT SLEEVE.

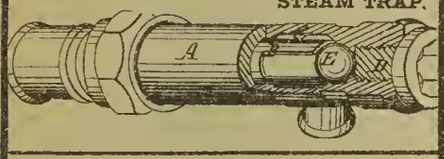


98,522 E. W. RANNEY. COMPOSITION FOR CONCRETE PAVEMENT.

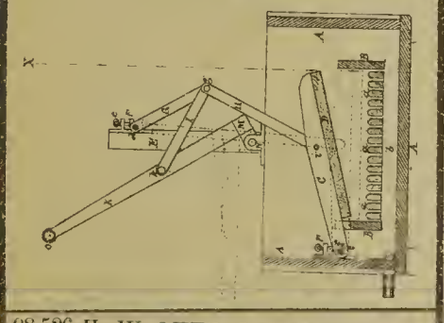
98,523. J. P. SCHMUCKER. PERMUTATION LOCK.



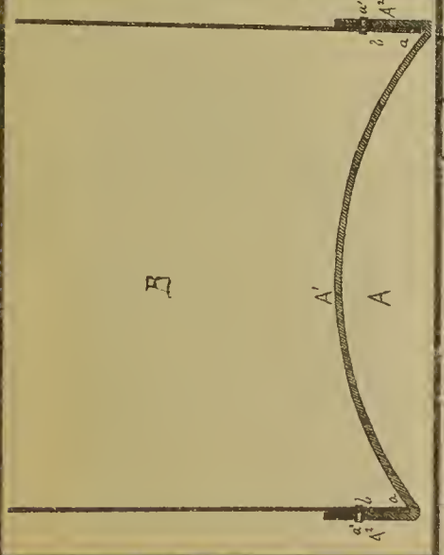
98,524. W. A. SCHNEIDER. STEAM TRAP.



98,525. J. SCOTT. WASHING MACHINE.

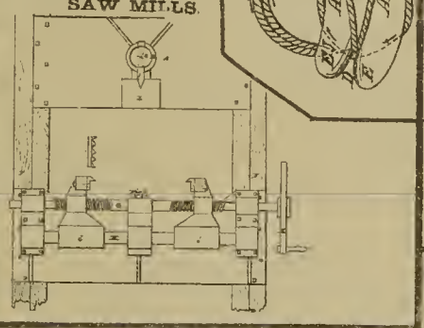


98,526. H. W. SHEPARD. CAN BOTTOM.



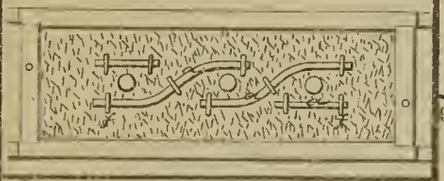
98,527. E. B. SOUTHWICK BAG FASTENER.

98,528. A. W. THOMPSON. HEAD BLOCK FOR SAW MILLS.

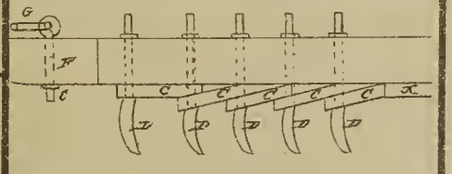


98,529. F. A. THUER. CARTRIDGE LOADER.

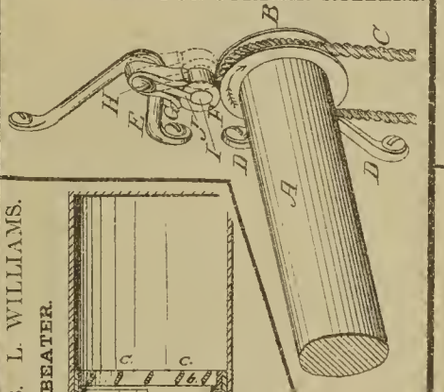
98,530. T. B. TITUS. CASTING SLEIGH SHOES.



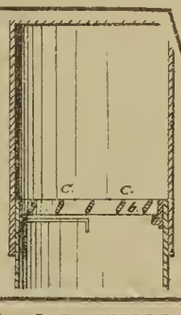
98,531. M. VANBIBBER. HARROW.



98,532. R. WANGEMAN. STOP FOR CURTAIN ROLLERS.



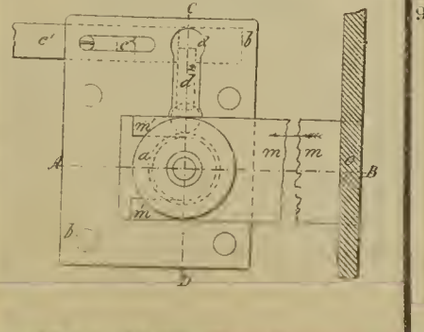
98,533. L. WILLIAMS. EGG BEATER.



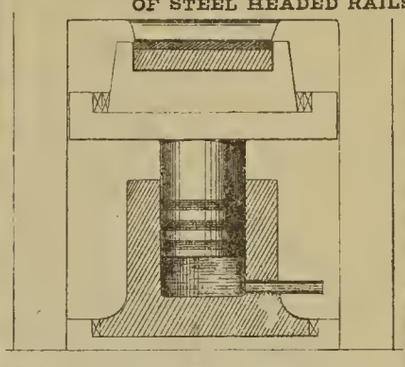
98,534. J. D. WILLIAMS. FIX FOR BOILING AND PUDDLING FURNACE.

98,535. A. D. WILLIS. MEDICAL COMPOUND.

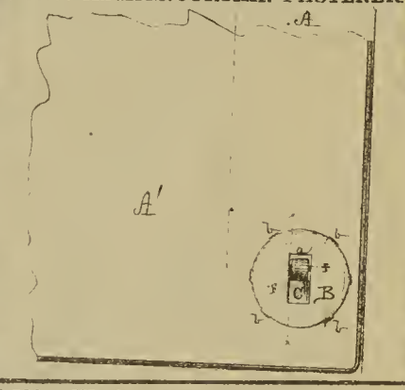
98,536. L. YALE, JR. PERMUTATION LOCK.



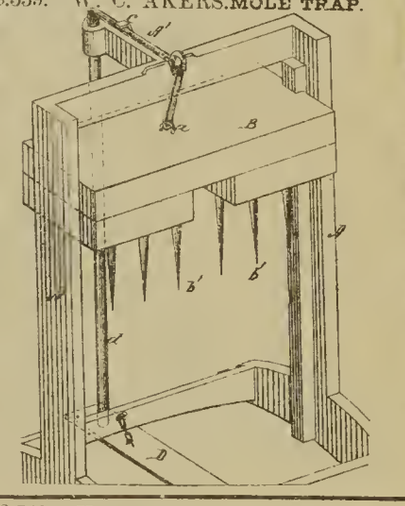
98,537. J. AMSTERDAM. MANUFACTURE OF STEEL HEADED RAILS.



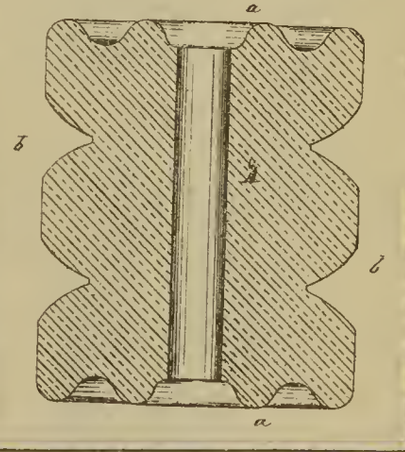
98,538. J. ADAMS. CURTAIN FASTENER.



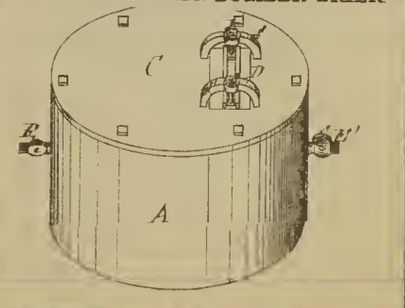
98,539. W. C. AKERS. MOLE TRAP.



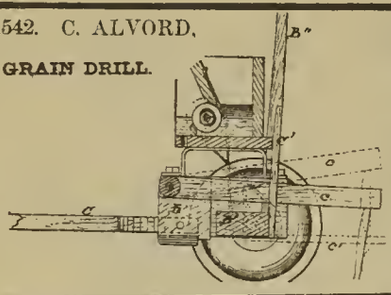
98,540. H. A. ALDEN. CAR SPRING.



98,541. J. ALLONAS. LUMBER DRIER.

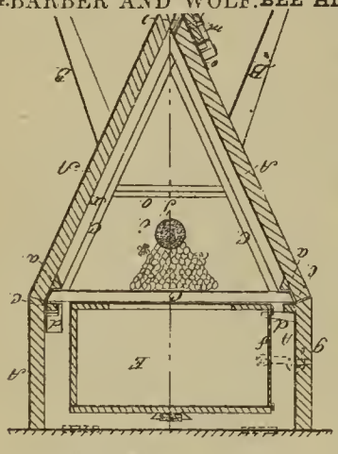


98,542. C. ALVORD. GRAIN DRILL.

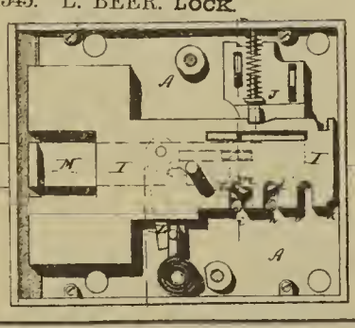


98,543. BAKER AND ENNIS. AXLE BOX.

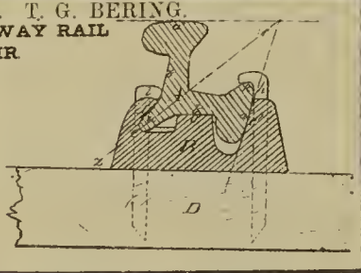
98,544. BARBER AND WOLF. BEE HIVE



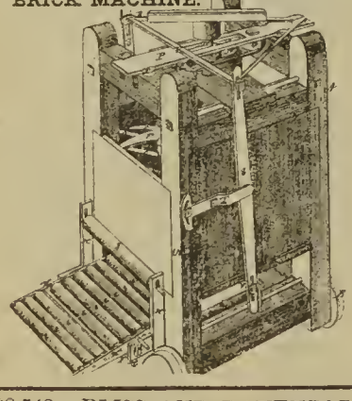
98,545. L. BEER. LOCK.



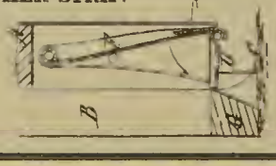
98,546. T. G. BERING. RAILWAY RAIL CHAIR.



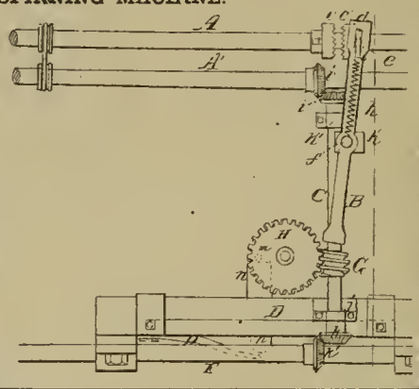
98,547. BISHOP AND AGNEW. BRICK MACHINE.



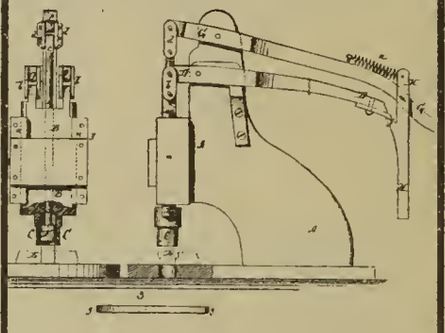
98,548. BLISS AND DAVENPORT. WEATHER STRIP.



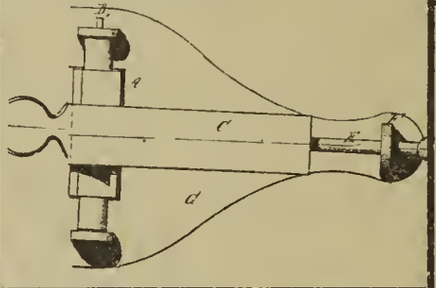
98,549. BOTTOMLEY AND GREENWOOD. SPINNING MACHINE.



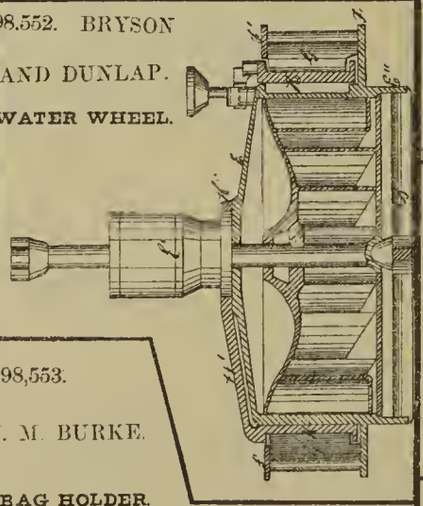
98,550. R. BRADY. CUTTING AND PRESSING HEADS OF METAL CANS.



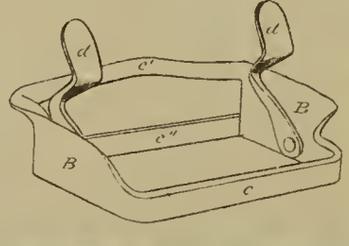
98,551. W. BROWN. HONE.



98,552. BRYSON AND DUNLAP. WATER WHEEL.

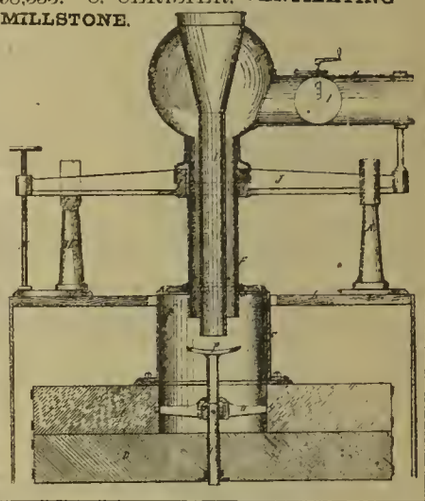


98,553. J. M. BURKE. BAG HOLDER.

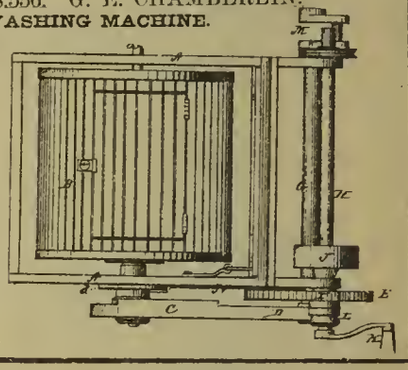


98,554. CALL AND GRIFFIN. MEDICAL COMPOUND.

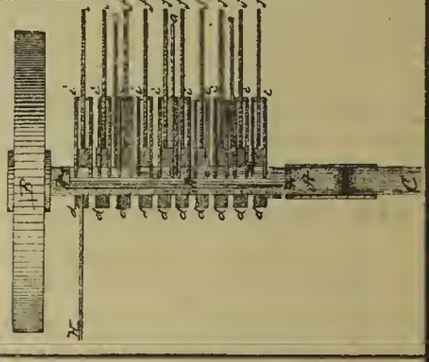
98,555. C. CERISIER. VENTILATING MILLSTONE.



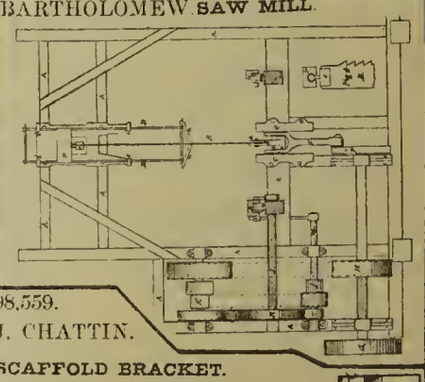
98,556. G. E. CHAMBERLIN. WASHING MACHINE.



98,557. M. C. CHAMBERLIN AND A. CLAWSON. GLEANER OR RAKE ATTACHMENT FOR REAPERS.

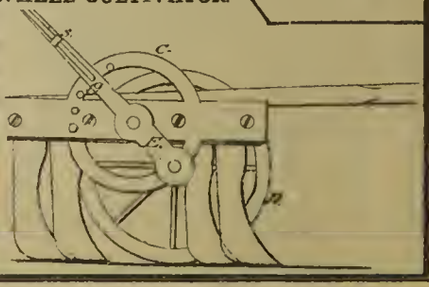


98,558. CHANDLER AND BARTHOLOMEW. SAW MILL.

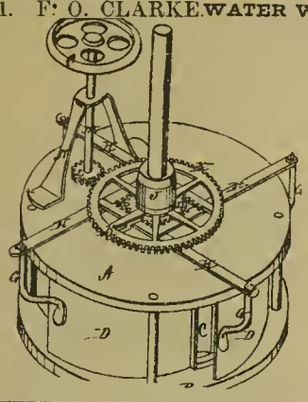


98,559. J. CHATTIN. SCAFFOLD BRACKET.

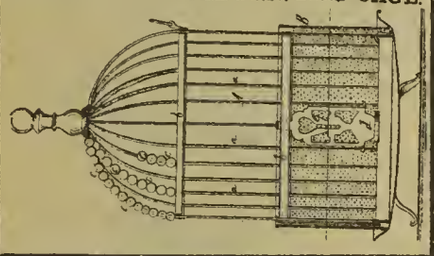
98,560. A. L. CHUBB. WHEEL CULTIVATOR.



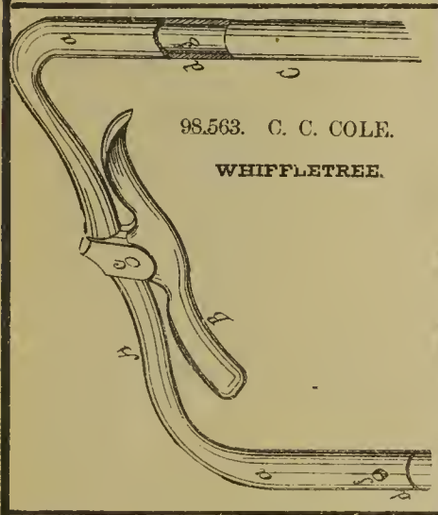
98,561. F. O. CLARKE. WATER WHEEL



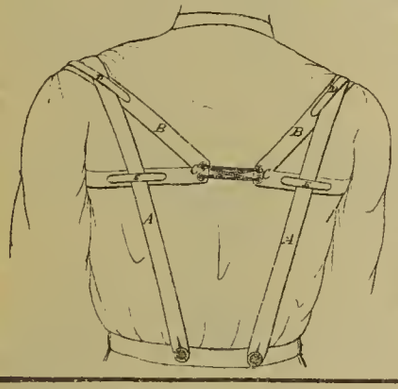
98,562. G. F. J. COLBURN. BIRD CAGE.



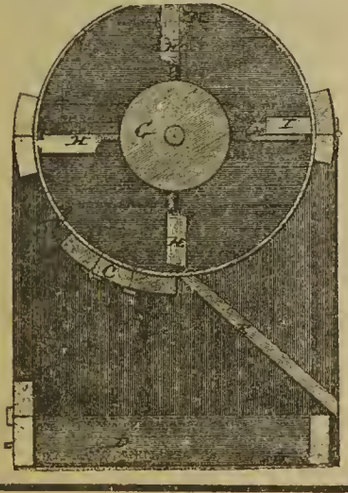
98,563. C. C. COLE.
WHIFFLETREE.



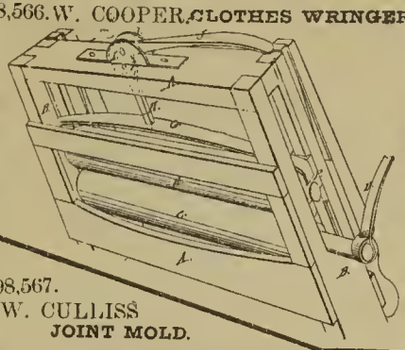
98,564. H. N. CONKLIN. SUSPENDER.



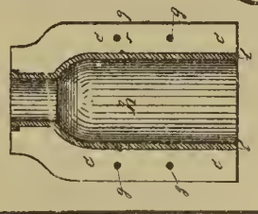
98,565. COOMBS AND GRAY.
HOMINY MILL.



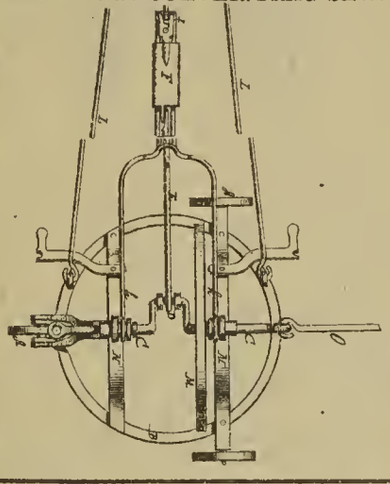
98,566. W. COOPER. CLOTHES WRINGER



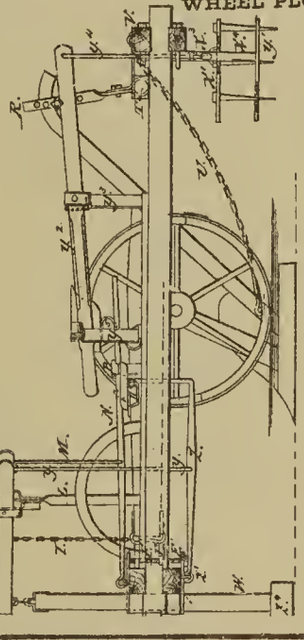
98,567.
W. CULLISS
JOINT MOLD.



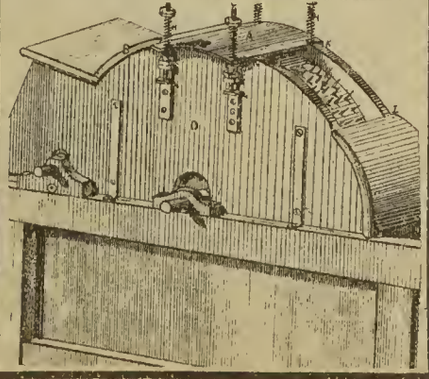
98,568. J. D. CULVER. DRAG SAW.



98,569. A. CUNNINGHAM.
WHEEL PLOW.

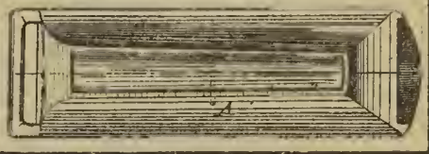


98,570. C. I. DEAN. PICKER GUARD.

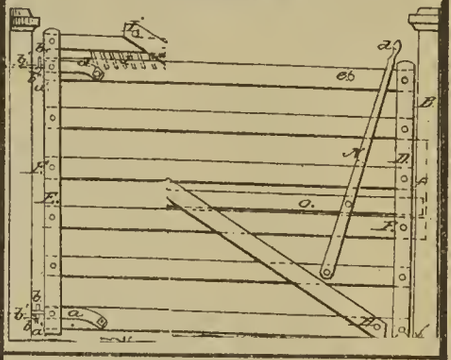


98,571. C. C. DENNETT.
CONCRETE ARCH FOR BUILDINGS.

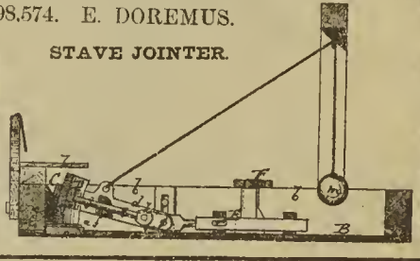
98,572. N. DICE. BUCKLE.



98,573. DICKASON AND CULP.
FARM GATE.

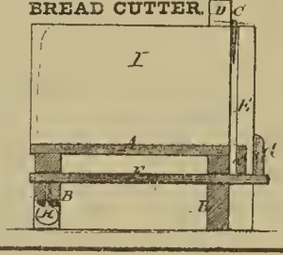


98,574. E. DOREMUS.
STAVE JOINTER.

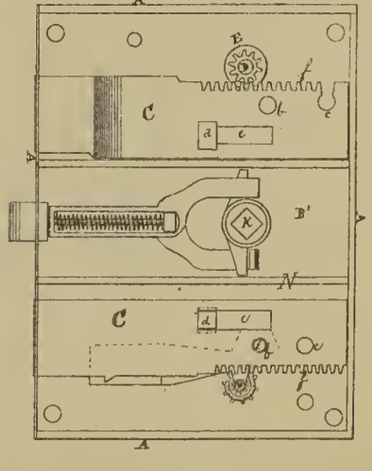


98,575. W. M. DOTY. PRUNING HOOK.

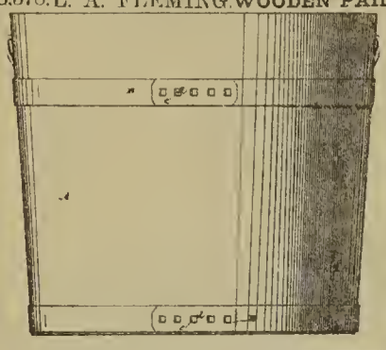
98,576. ENSINGER AND FERTIG.
BREAD CUTTER.



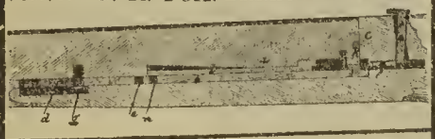
98,577. E. FAY. LOCK.



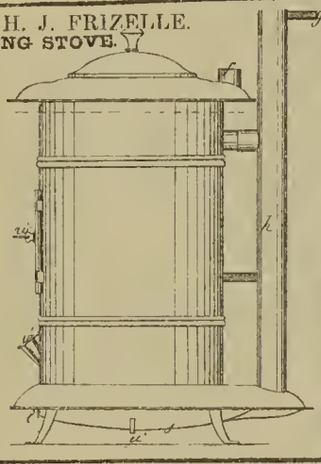
98,578. L. A. FLEMING. WOODEN PAIL.



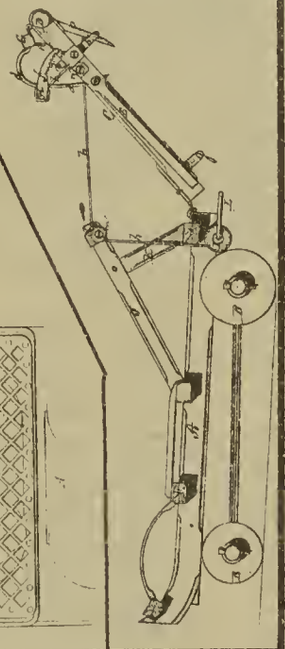
98,579. G. H. FOX. BREECH LOADER.



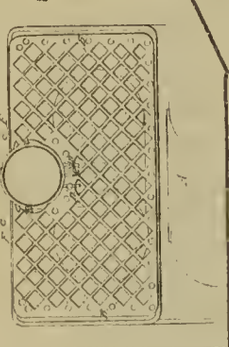
98,580. H. J. FRIZELLE. HEATING STOVE.



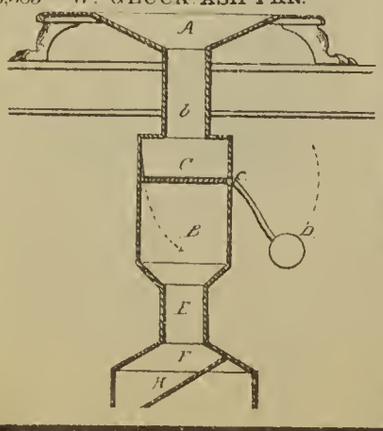
98,581. N. GABEL. HAY LOADER.



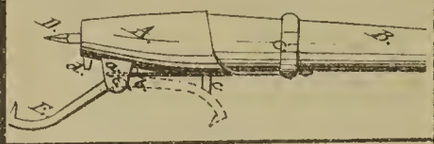
98,582. GERHART AND McCORD. STOVE PIPE SHELF.



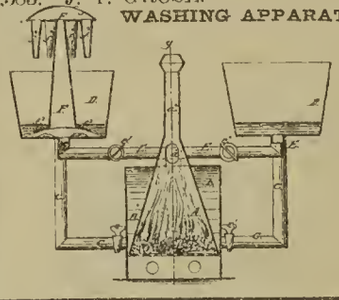
98,583 W. GLUCK. ASH PAN.



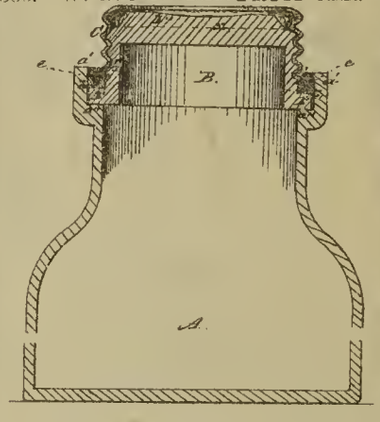
98,584. W. O. GREELY. CANT HOOK.



98,585. J. T. GROSE. WASHING APPARATUS.

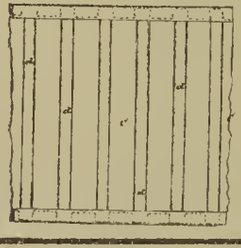


98,586. W. L. HALLER. FRUIT JAR.

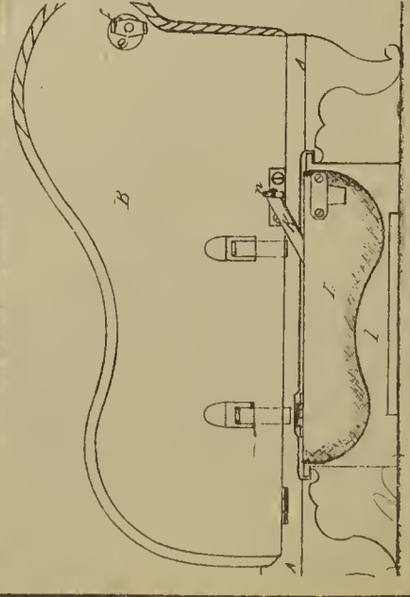


98,587. W. HANLON. GYMNASTIC APPARATUS.

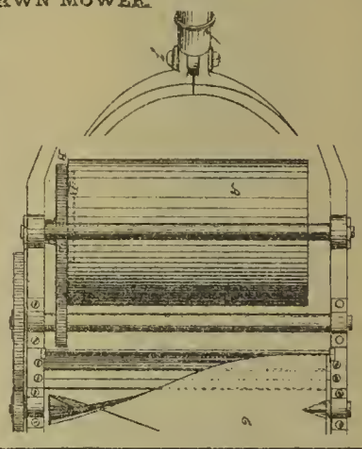
98,588. W. HANLON. GYMNASTIC APPARATUS.



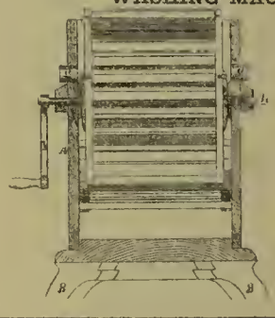
98,589. A. HANSEN. BED LOUNGE.



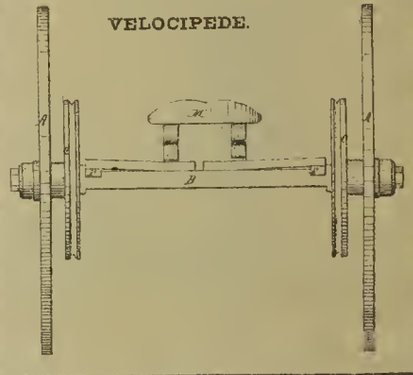
98,590. H. W. HARKNESS. LAWN MOWER.



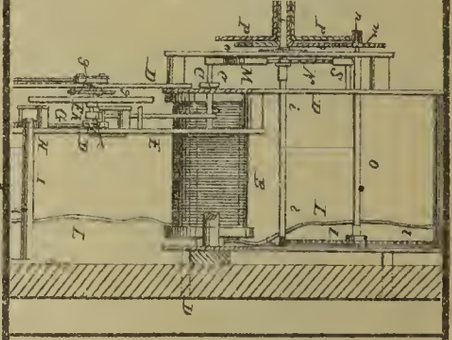
98,591. L. B. HARTT. WASHING MACHINE.



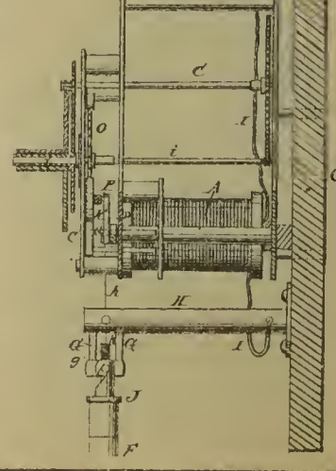
98,592. J. H. HAYNES. VELOCIPEDE.



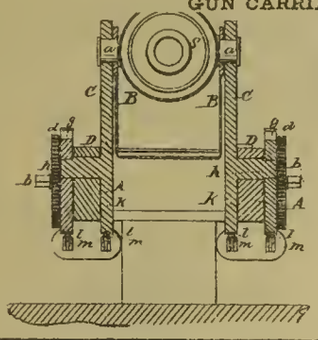
98,593. V. HIMMER. ELECTRIC CLOCK.



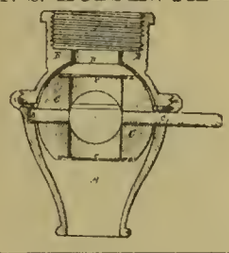
98,594. V. HIMMER. ELECTRIC CLOCK.



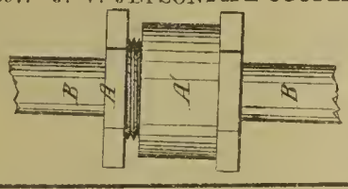
98,595. J. C. HOUEL AND F. L. F. CAILLET. GUN CARRIAGE.



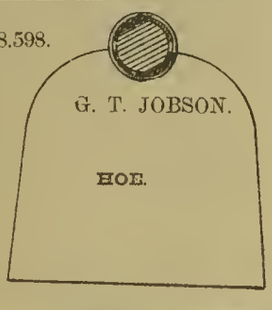
98,596. T. S. HUDSON. FILTER.



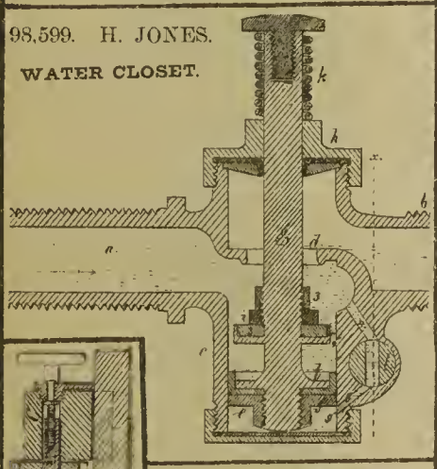
98,597. J. V. JEPSON PIPE COUPLING



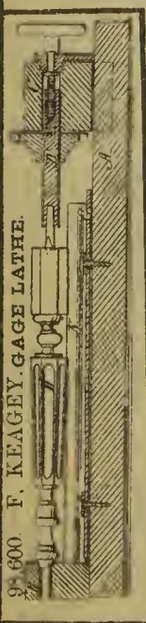
98,598. G. T. JOBSON. HOE.



98,599. H. JONES. WATER CLOSET.

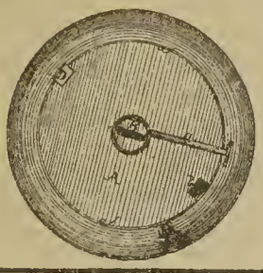


98,600. F. KEAGEY. GAGE LATHE.

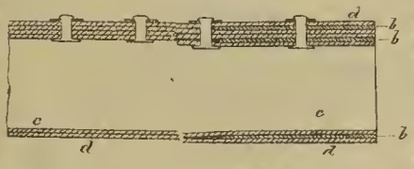


98,601. KIMBALL AND HEBARD WINDOW SCREEN

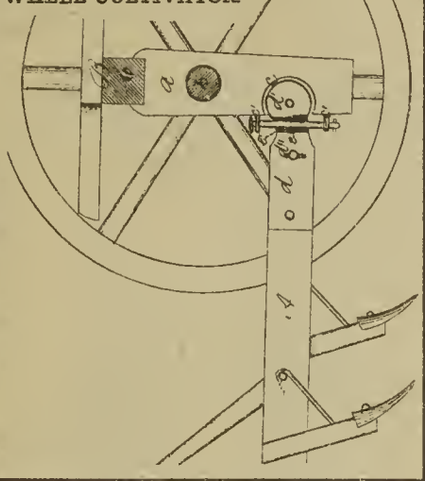
98,602. T. LANGSTON. LANTERN.



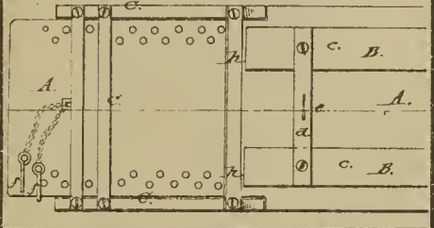
98,603. B. F. LEE. HOSE.



98,604. J. P. LETZ, WHEEL CULTIVATOR.



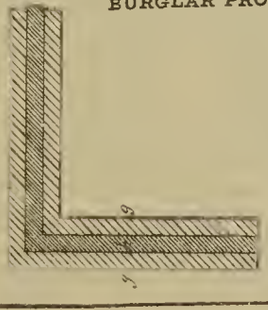
98,605. S. P. LOOMIS. SCAFFOLD.



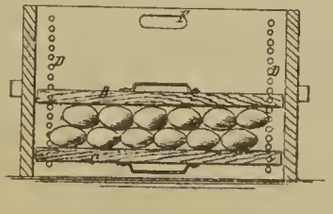
98,606. W. J. LYND. PROCESS OF PREPARING COAL FOR SMELTING ORE.

98,607. W. J. LYND. COAL FOR METALLURGICAL OPERATIONS.

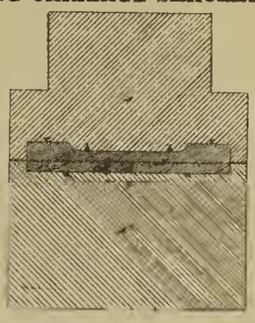
98,608. W. K. MARVIN. BURGLAR PROOF SAFE.



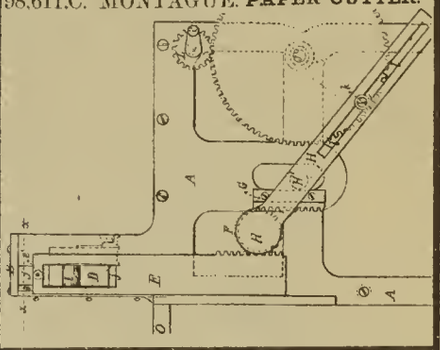
98,609. J. D. MICHAEL. EGG BOX.



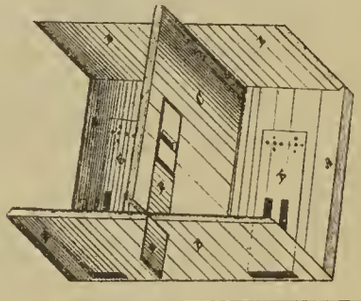
98,610. R. R. MILLER. FORGING CARRIAGE SHACKLES.



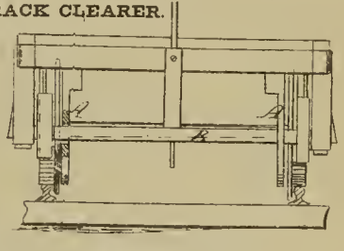
98,611. C. MONTAGUE. PAPER CUTTER.



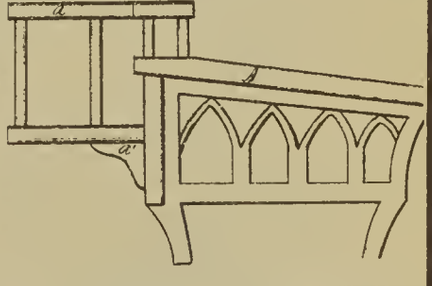
98,612. J. MONTGOMERY. BEE HIVE.



98,613. MORRIS AND FRANKLIN. TRACK CLEARER.

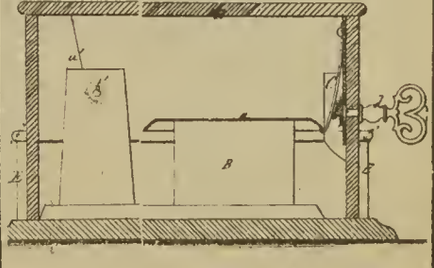


98,614. G. MUNGER. DESK.

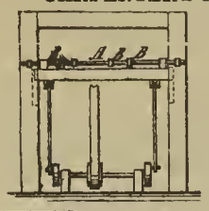


98,615. MURDOCK AND HAYNES. CONFECTIONER'S TOOL.

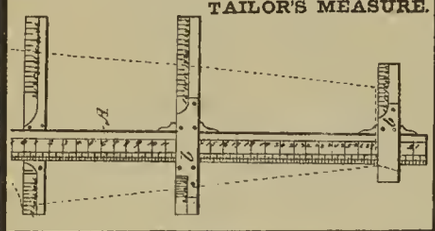
98,616. H. A. NAUEN. LOCK.



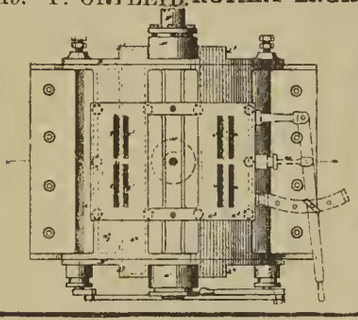
98,617. G. M. NICKASON
CARPENTER'S MARKER.



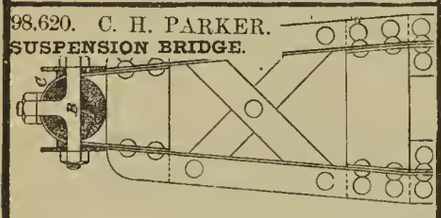
98,618. I. J. ORDWAY.
TAILOR'S MEASURE.



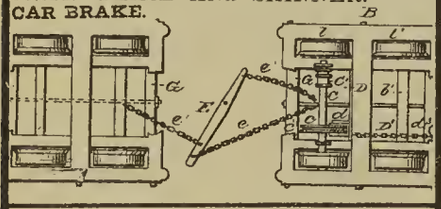
98,619. F. OHTLEIB. ROTARY ENGINE



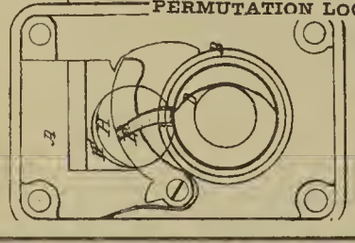
98,620. C. H. PARKER.
SUSPENSION BRIDGE.



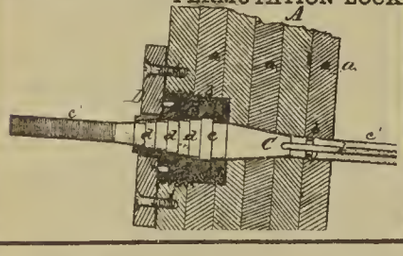
98,621. PEASE AND SKINNER.
CAR BRAKE.



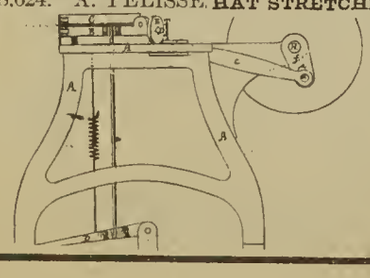
98,622. J. SARGENT.
PERMUTATION LOCK



98,623. J. SARGENT.
PERMUTATION LOCK



98,624. A. PELISSE. HAT STRETCHER.



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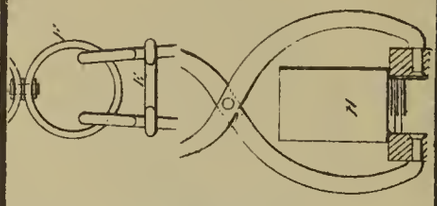
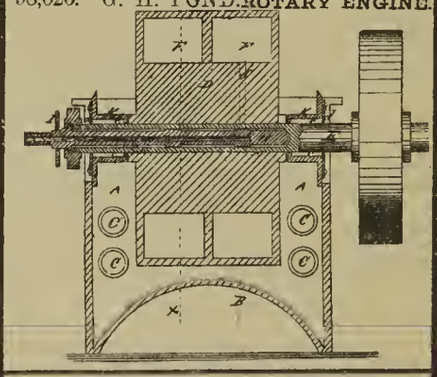
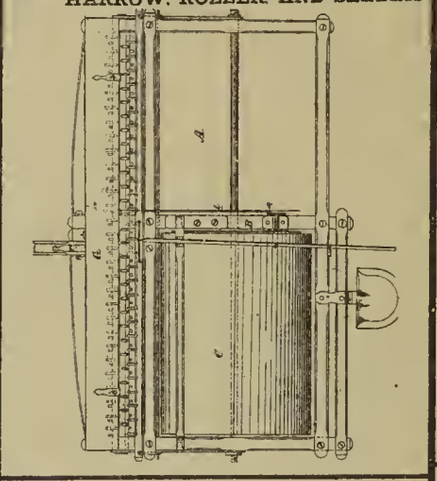


98,626. G. H. POND. ROTARY ENGINE.



98,627. A. POWELL.
HARROW, ROLLER, AND SEEDER.



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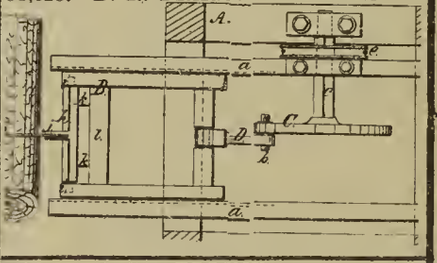
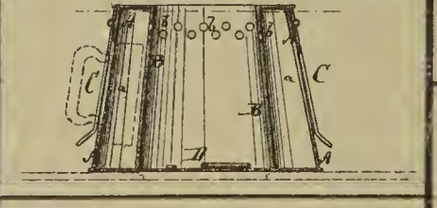


98,629. J. G. REDLINE.
SAD IRON HEATER.



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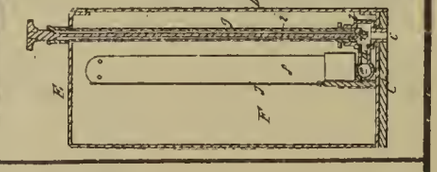
HYDROSTATIC SCALES.



98,631. G. W. REISINGER.
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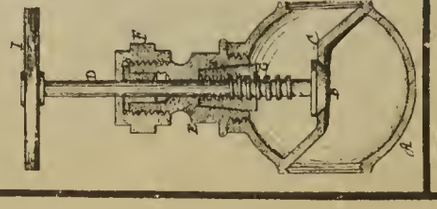
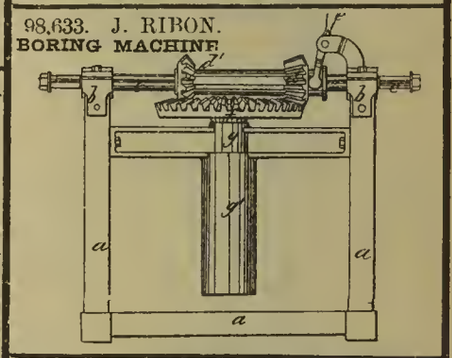
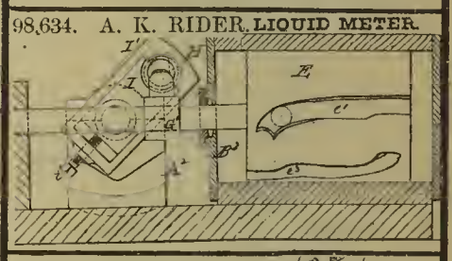


98,632. G. M. RHOADES.
MECHANICAL GEARING.

98,633. J. RIBON.
BORING MACHINE.



98,634. A. K. RIDER. LIQUID METER.



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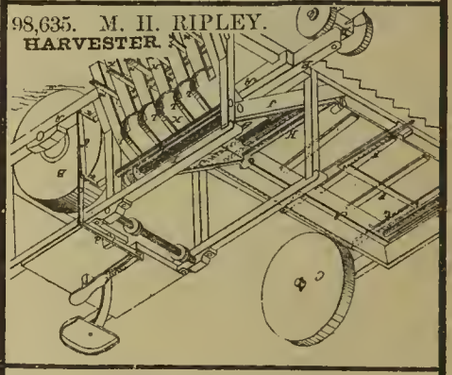
HARVESTER.



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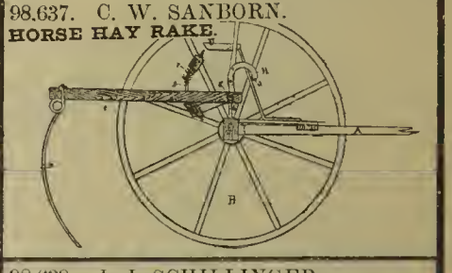
STEERING APPARATUS.

98,637. C. W. SANBORN.
HORSE HAY RAKE.



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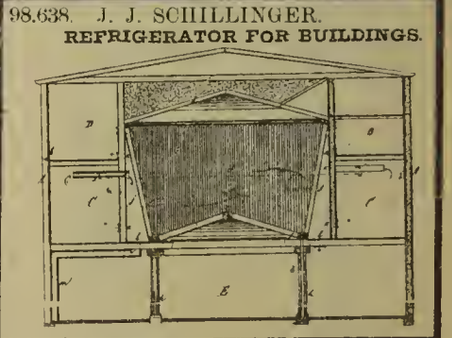
REFRIGERATOR FOR BUILDINGS.



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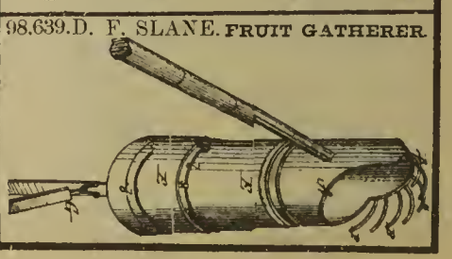
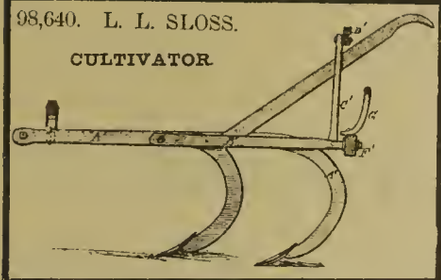
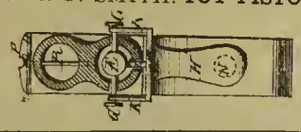


98,640. L. L. SLOSS.
CULTIVATOR.



98,641. C. F. SMITH. TOY PISTOL.



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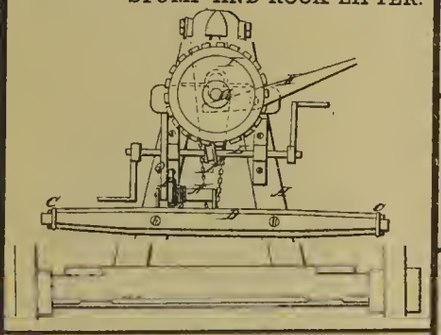
STUMP AND ROCK LIFTER.



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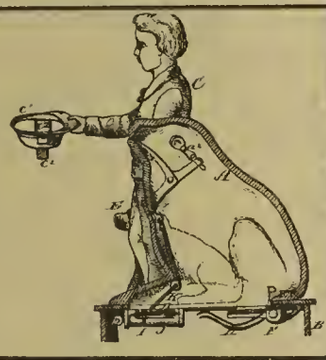
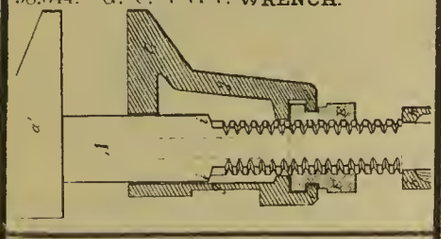
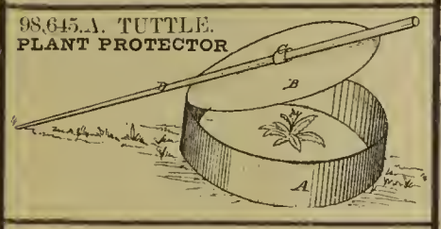


98,644. G. C. TAFT. WRENCH.



98,645. A. TUTTLE.
PLANT PROTECTOR



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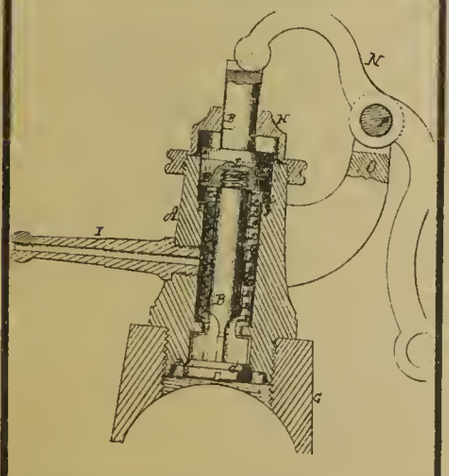

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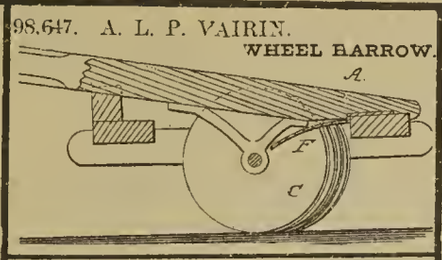
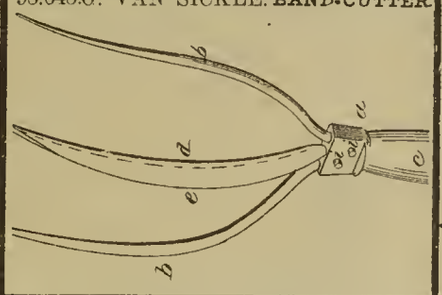


98,648. G. VAN SICKLE. BAND-CUTTER.



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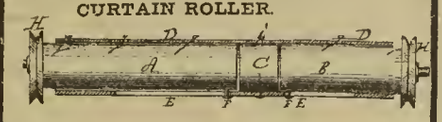
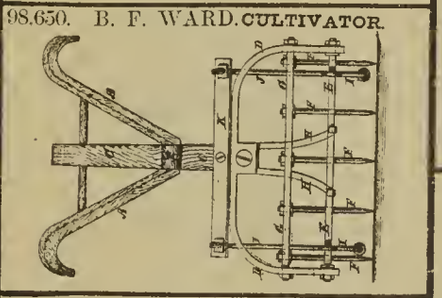
CURTAIN ROLLER.



98,650. B. F. WARD. CULTIVATOR.



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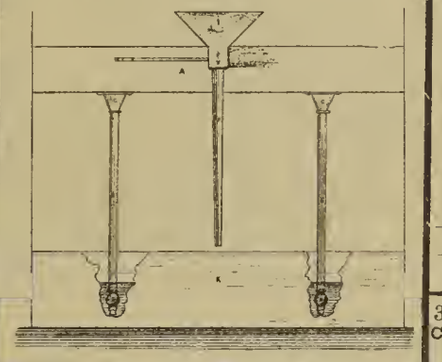

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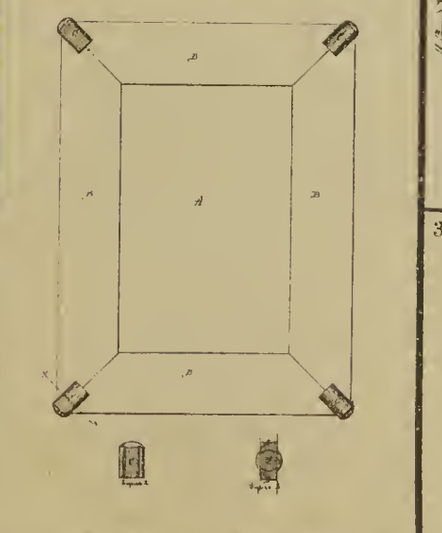
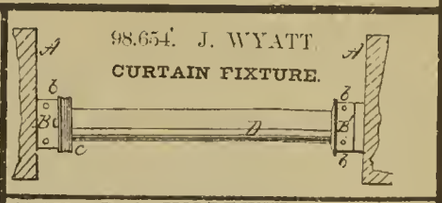
COMPOSITION FOR FLOORING.

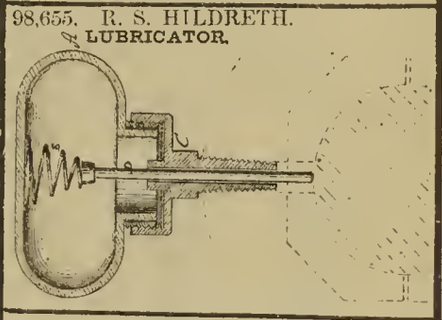
98,653. W. A. WILDE.
SLATE FRAME.



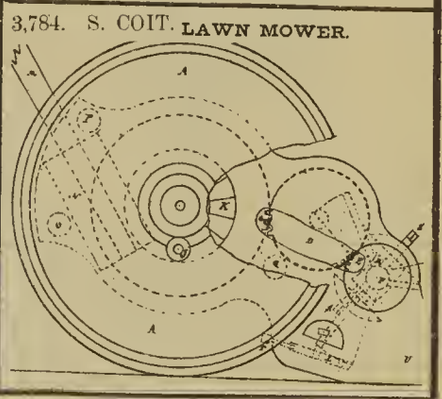
98,654. J. WYATT.
CURTAIN FIXTURE.



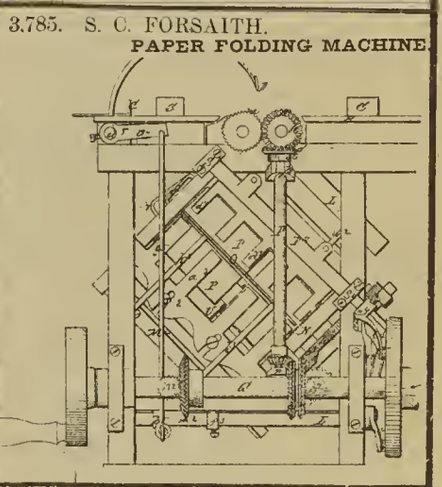
98,655. R. S. HILDRETH.
LUBRICATOR.



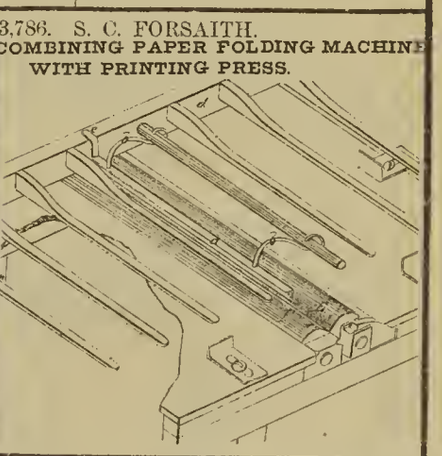
3,784. S. COIT. LAWN MOWER.



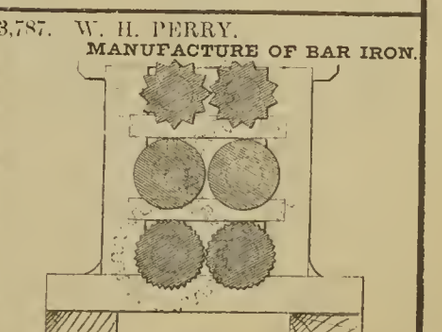
3,785. S. C. FORSAITH.
PAPER FOLDING MACHINE.



3,786. S. C. FORSAITH.
COMBINING PAPER FOLDING MACHINE WITH PRINTING PRESS.



3,787. W. H. PERRY.
MANUFACTURE OF BAR IRON.



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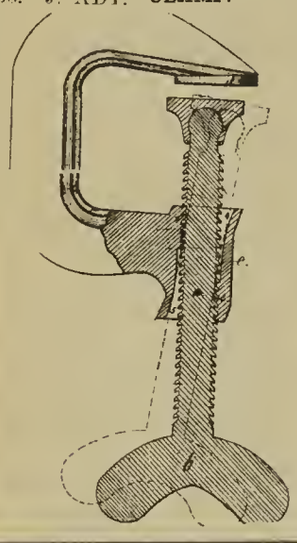
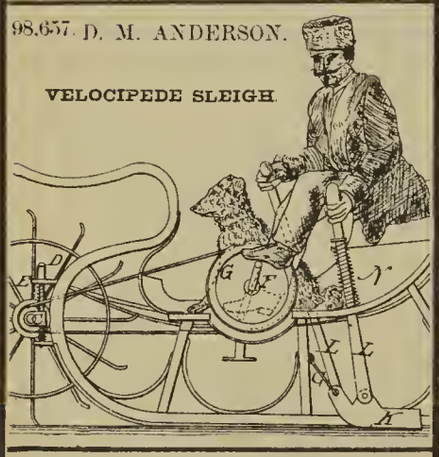
JANUARY 11, 1870.

98,656. J. ADT. **CLAMP.**

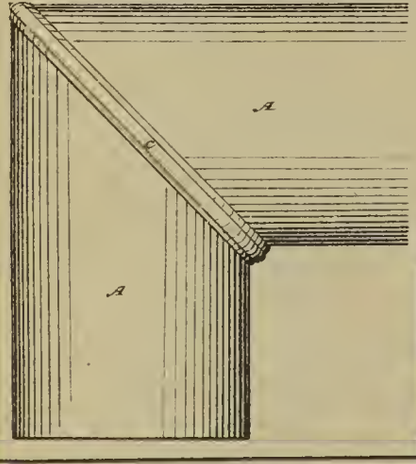


98,657. D. M. ANDERSON. **VELOCIPEDE SLEIGH.**



98,658. H. M. BAKER. **PROCESS OF CLEANING COTTON WASTE.**

98,659. P. J. BIESENBACH. **STOVEPIPE ELBOW.**



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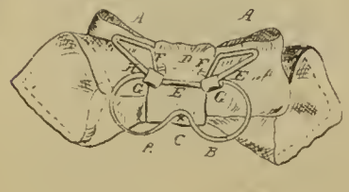
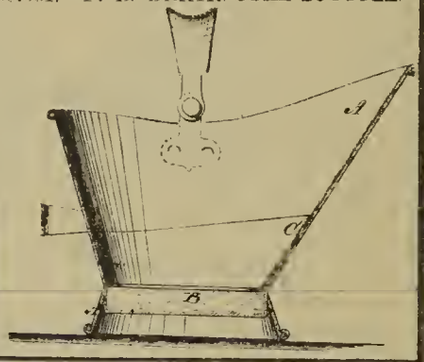
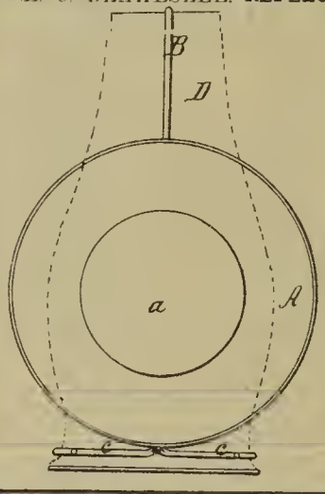


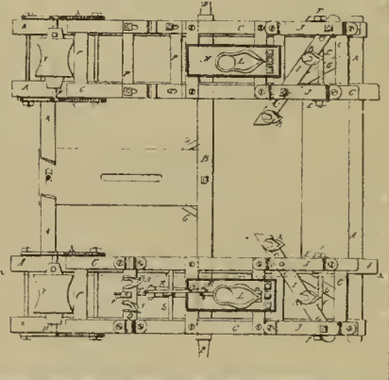
98,661. F. L. BLAIR. **COAL SCUTTLE.**



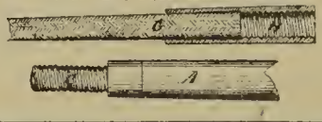
98,662. E. C. BLAKESLEE. **REFLECTOR.**



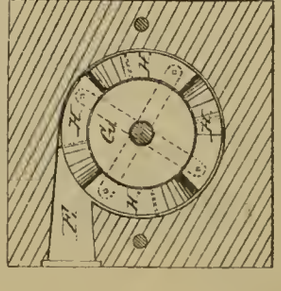
98,663. N. BREED. **CORN PLANTER AND CORN CULTIVATOR.**



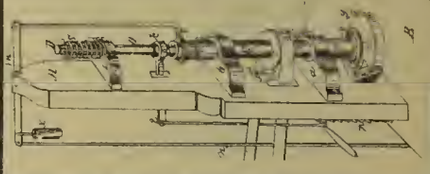
98,664. C. L. BUSHNELL. **CANE.**



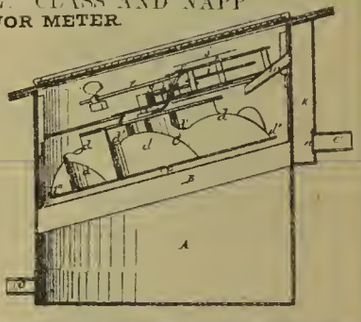
98,665. H. A. CHADWICK. **WATER WHEEL.**



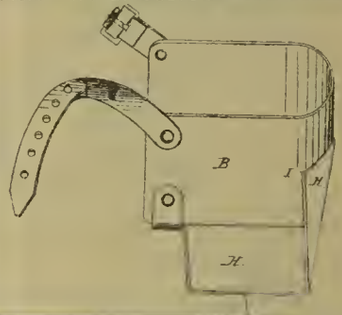
98,666. P. CHASE. **CUTTING BARREL HEADS.**



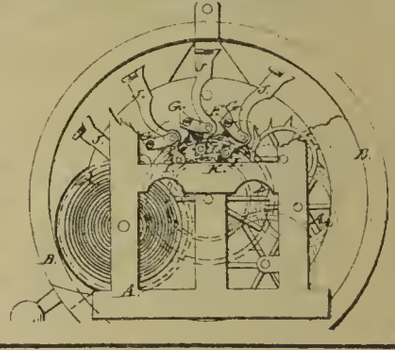
98,667. CLASS AND NAPP. **LIQUOR METER.**



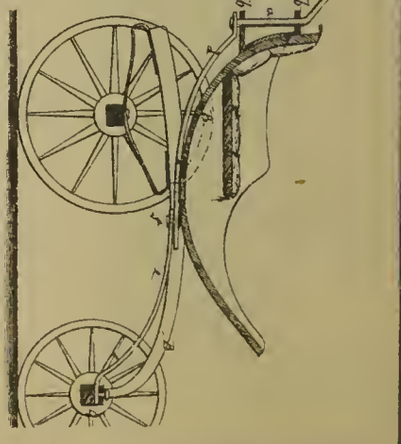
98,668. W. B. COATES. **ICE CREEPER.**



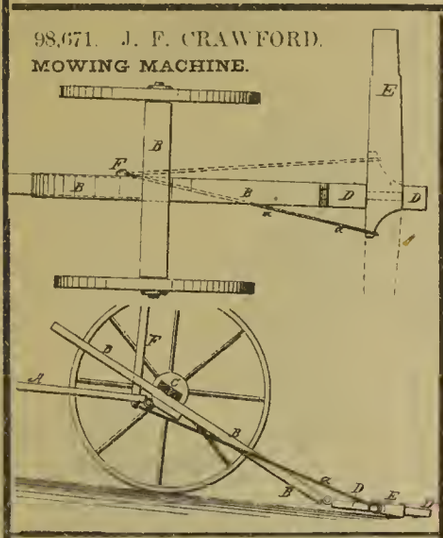
98,669. A. COURVOISIER. **TIME CHECK.**



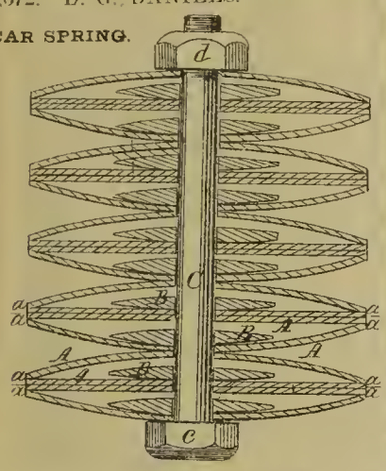
98,670. J. A. CRANDALL. **CHILD'S CARRIAGE.**



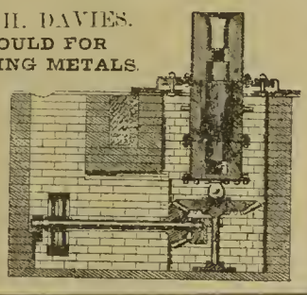
98,671. J. F. CRAWFORD.
MOWING MACHINE.



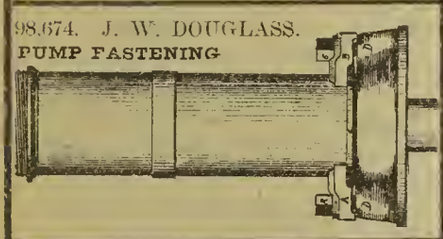
98,672. D. G. DANIELS.
CAR SPRING.



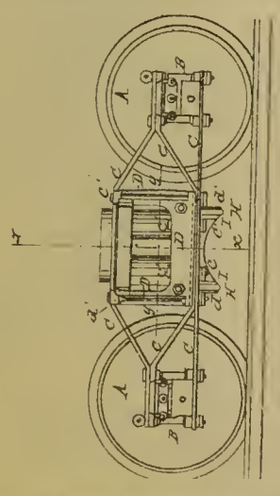
98,673. H. DAVIES.
MOULD FOR CASTING METALS.



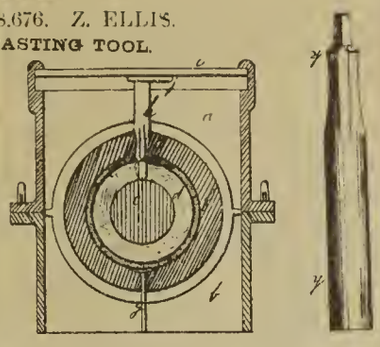
98,674. J. W. DOUGLASS.
PUMP FASTENING



98,675. I. DRIPPS.
RAILWAY CAR TRUCK.

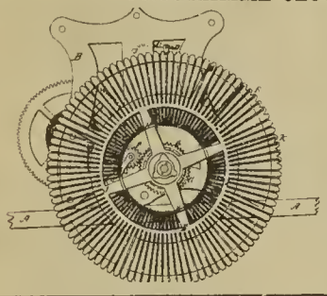


98,676. Z. ELLIS.
CASTING TOOL.

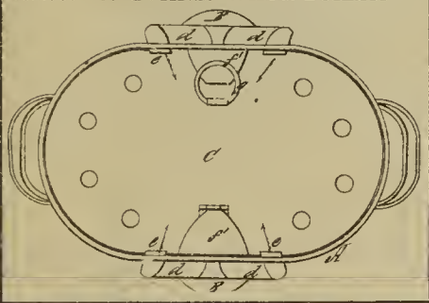


98,677. S. D. ENGLE.
WATCH DUST CAP.

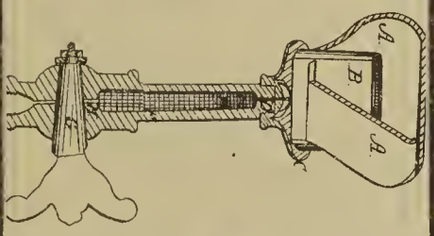
98,678. S. F. ESTELL.
PROGRAMME CLOCK.



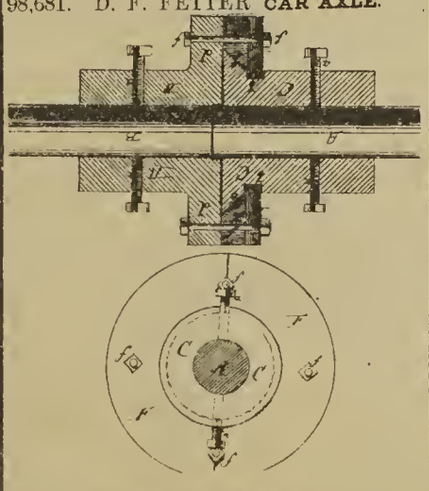
98,679. T. EVANS. WASH BOILER.



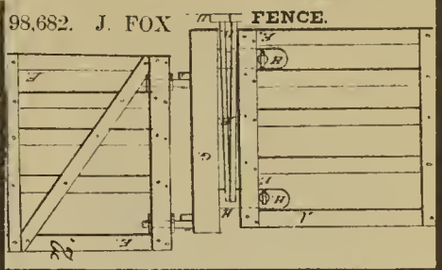
98,680. J. E. FINLEY. VAPOR BURNER.



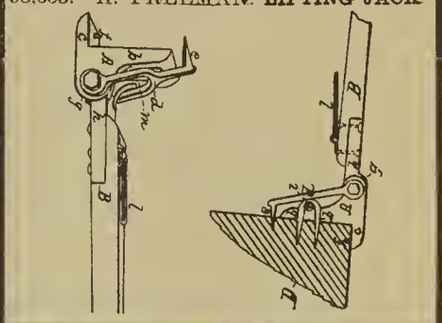
98,681. D. F. FETTER CAR AXLE.



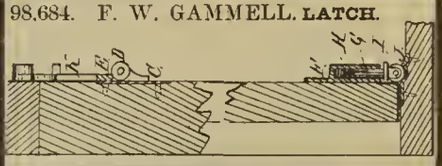
98,682. J. FOX FENCE.



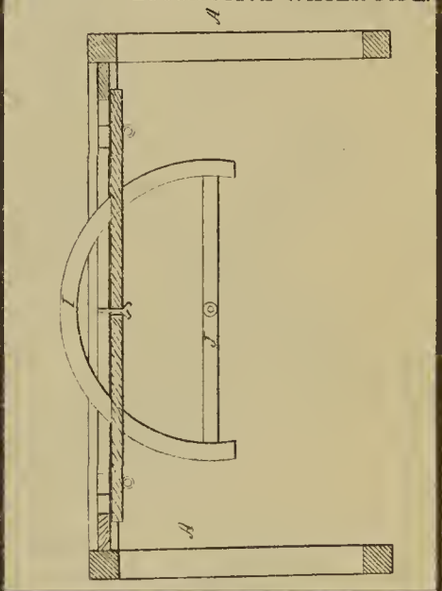
98,683. A. FREEMAN. LIFTING JACK.



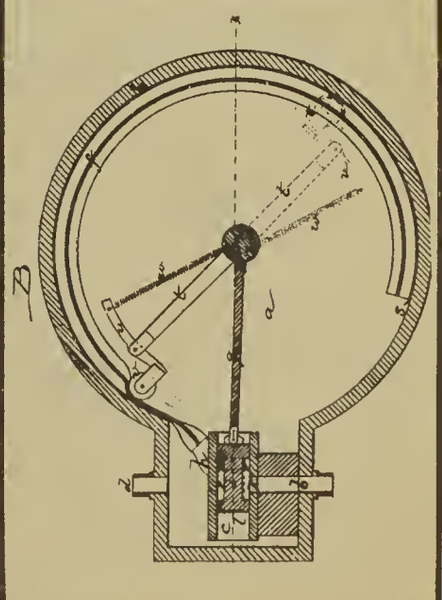
98,684. F. W. GAMMELL. LATCH.



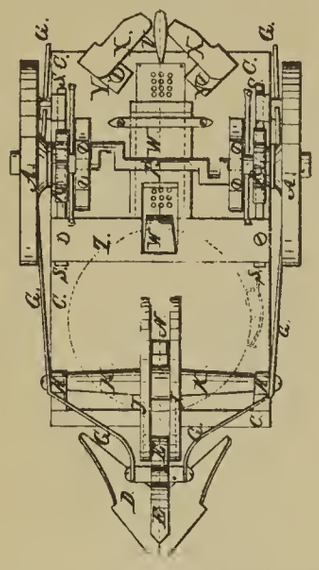
98,685. F. GERRARD.
LOCOMOTIVE WATER PIPE.



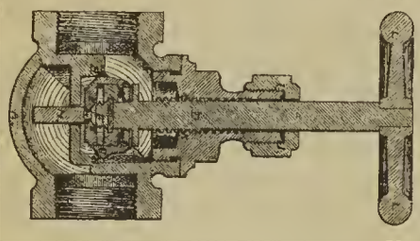
98,686. O. GILMORE. WATER METER.



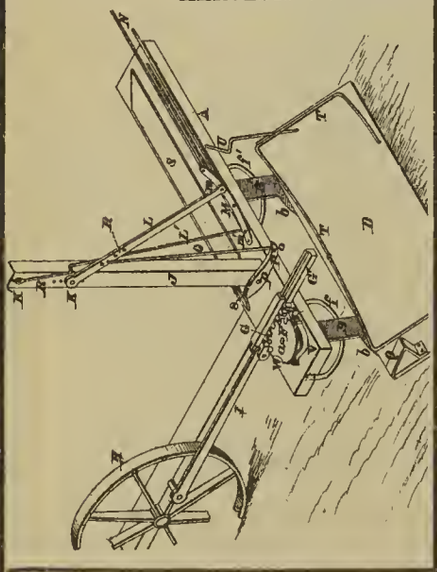
98,687. S. T. GODFREY. POTATO PLANTER.



98,688. E. J. GOULD. GLOBE VALVE.

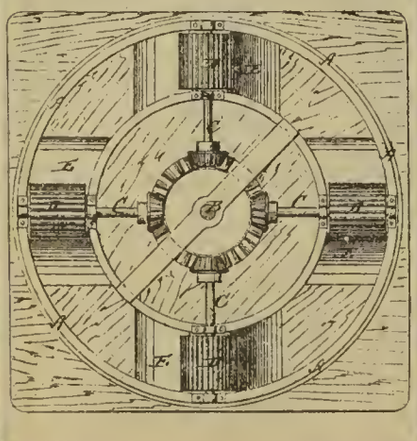


98,689. O. C. GREEN. HARVESTER DROPPER.

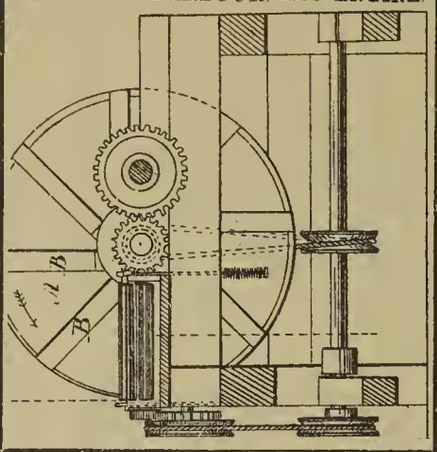


98,690. H. H. GRIGGS. MEDICAL COMPOUND.

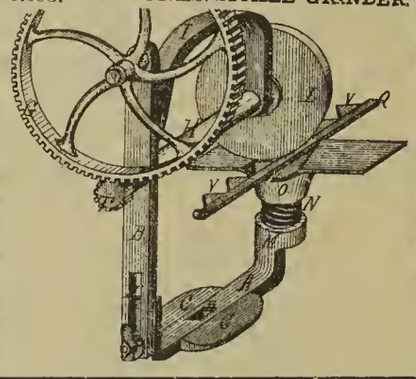
98,691. E. HAWKINS. PULP ENGINE.



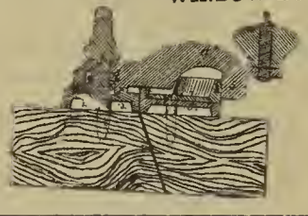
98,692. J. W. BARBOUR. RAG ENGINE.



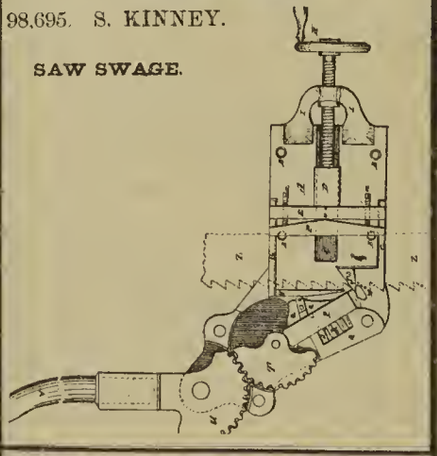
98,693. A. B. JONES. SICKLE GRINDER.



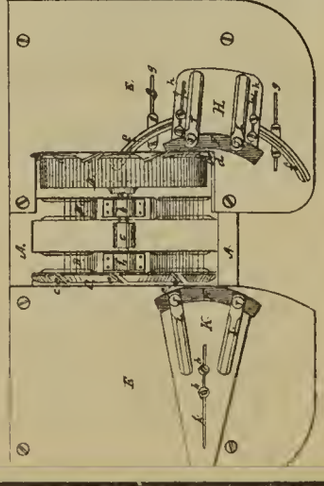
98,694. M. AND A. D. JUDD. WINDOW BUTTON.



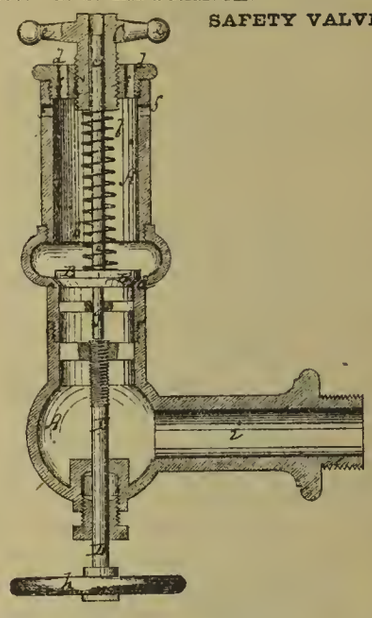
98,695. S. KINNEY. SAW SWAGE.



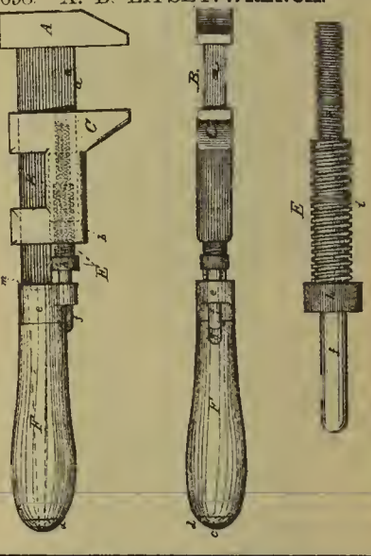
98,696. H. KURTZ. FELLOE MACHINE.



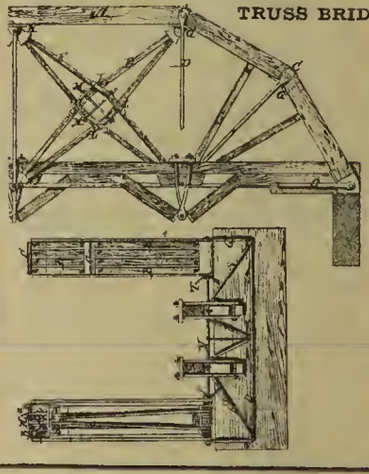
98,697. T. S. LA FRANCE. SAFETY VALVE.



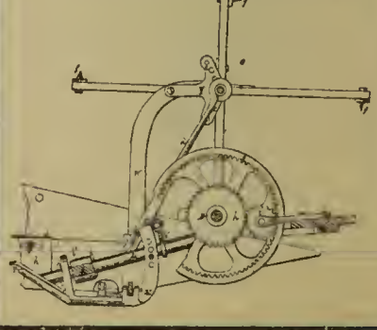
98,698. A. B. LIPSEY. WRENCH.



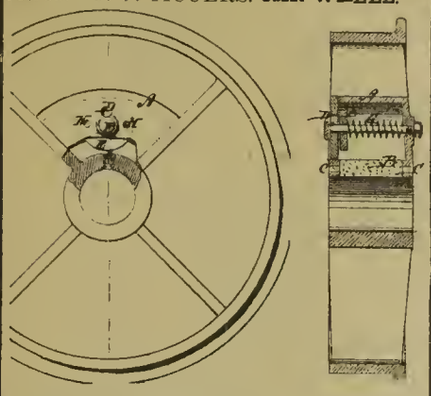
98,699. H. S. McDOWELL. TRUSS BRIDGE.



98,700. C. G. MILLER AND B. KIRSTING. HARVESTER RAKE.

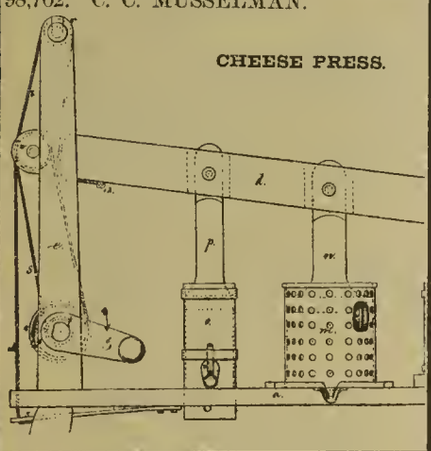


98,701. T. J. MOOERS. **CAR WHEEL.**

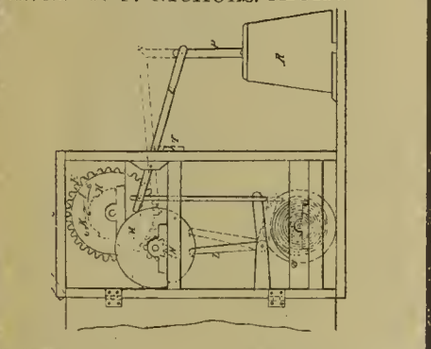


98,702. C. C. MUSSELMAN.

CHEESE PRESS.

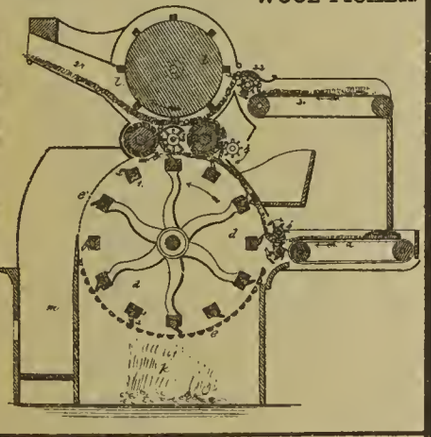


98,703. J. P. NICHOLS. **CHURN.**



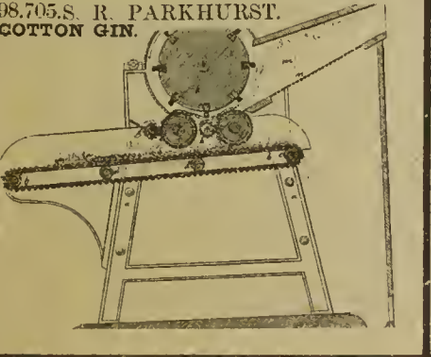
98,704. S. R. PARKHURST.

WOOL PICKER.



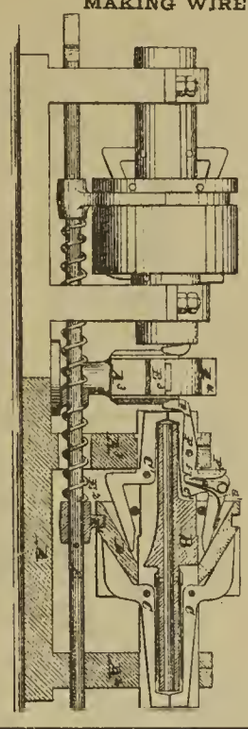
98,705. S. R. PARKHURST.

COTTON GIN.



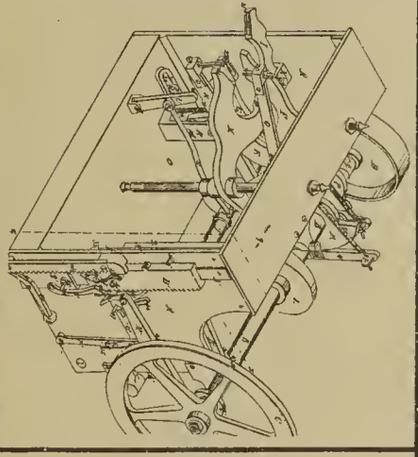
98,706. P. AND F. PHILIP

MAKING WIRE HEDDLES.

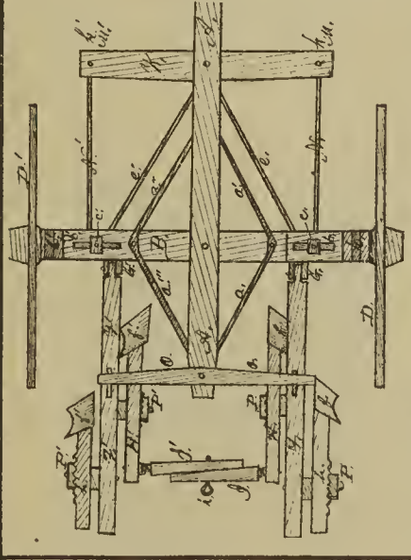


98,707. S. S. PUTNAM.

HORSESHOE NAIL MACHINE.



98,708. W. B. RAPER. **CORN PLOW.**

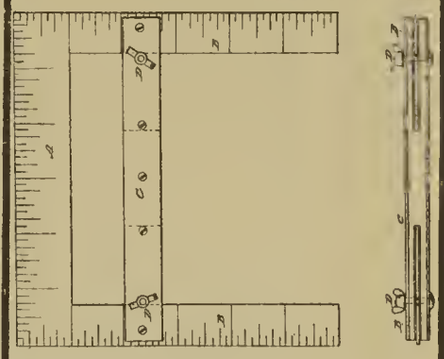


98,709. D. RENSHAW.

SPRING HINGE.

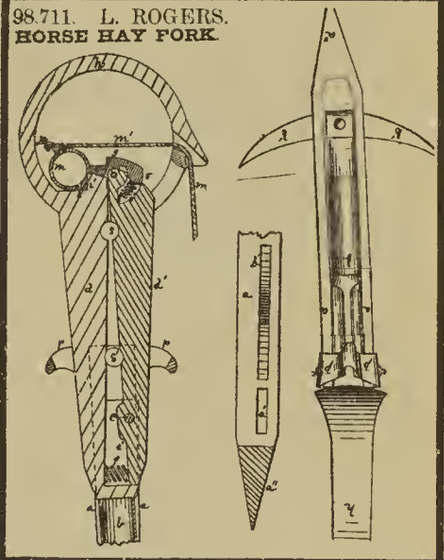
98,710. E. H. ROBINSON.

RULING DEVICE.



98,711. L. ROGERS.

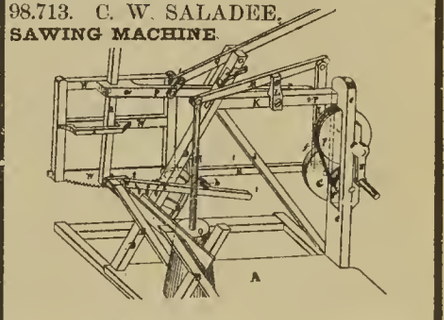
HORSE HAY FORK.



98,712. J. A. ROTHE. **TO OBTAIN FIBRE FROM VEGETABLES FOR PAPER, &c.**

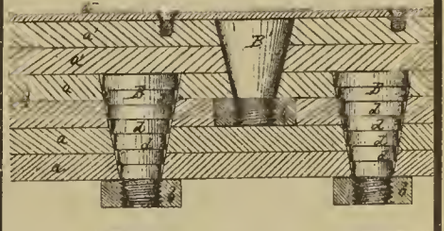
98,713. C. W. SALADEE.

SAWING MACHINE.



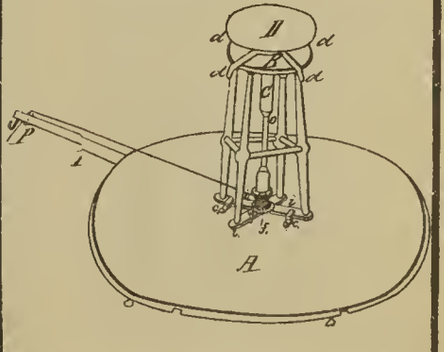
98,714. J. SARGENT.

BURGLAR PROOF SAFE.

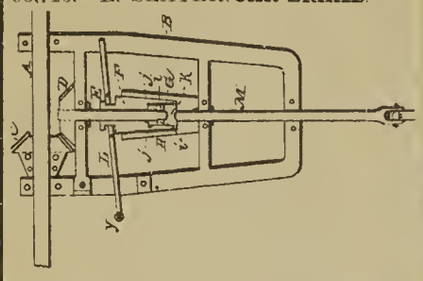


98,715. N. P. SLADE.

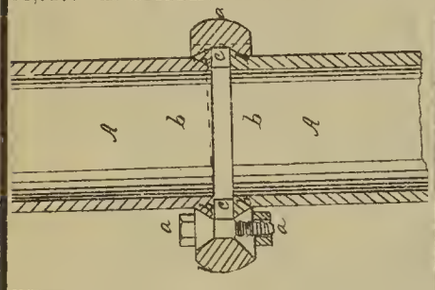
CHECK FOR HORSE POWER.



98,716. E. SLATER. CAR BRAKE.

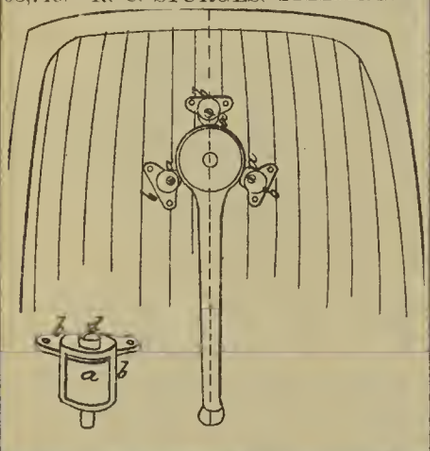


98,717. E. SMITH. PIPE COUPLING.

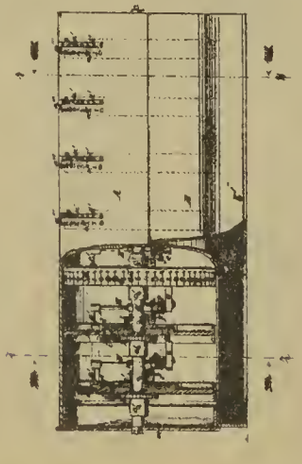


98,718. N. STOCKWELL. APPARATUS FOR FEEDING SWINE.

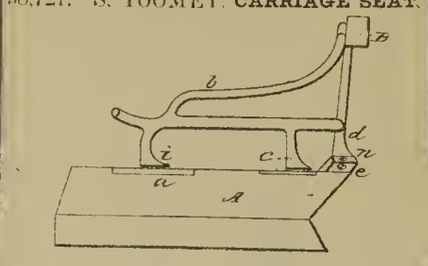
98,719. R. C. STURGES. STEERING.



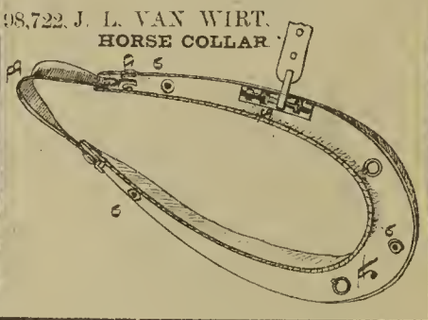
98,720. E. A. SWAIN. ADDING MACHINE.



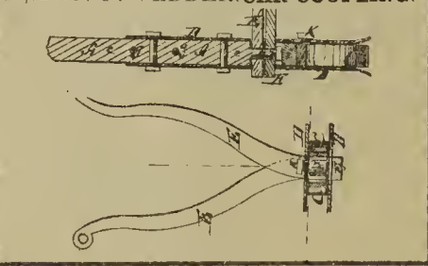
98,721. S. TOOMEY. CARRIAGE SEAT.



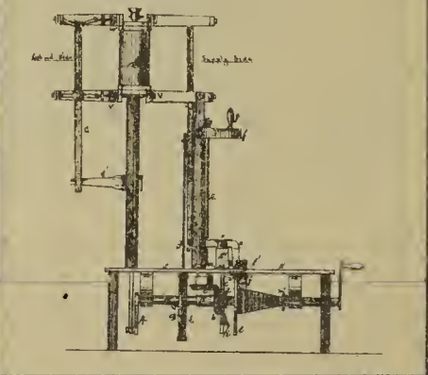
98,722. J. L. VAN WIRT. HORSE COLLAR.



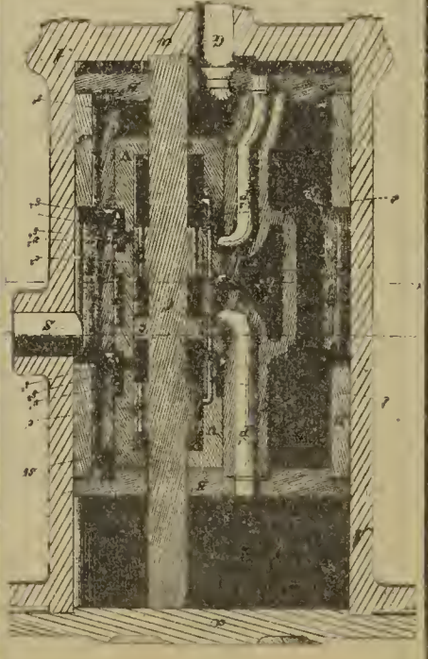
98,723. J. B. VEDDER. CAR COUPLING.



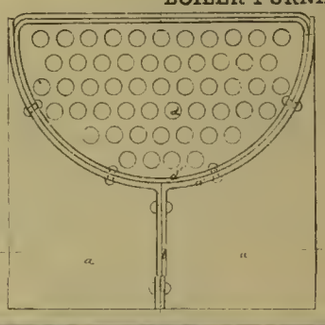
98,724. C. W. WAILEY. CUT-OFF VALVE GEAR.



98,725. G. I. WASHBURN. SLIDE VALVE.

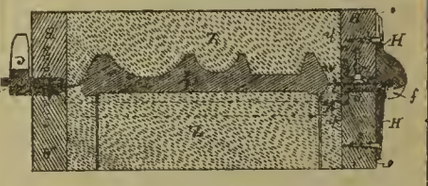


98,726. F. W. WEBB. BOILER FURNACE.

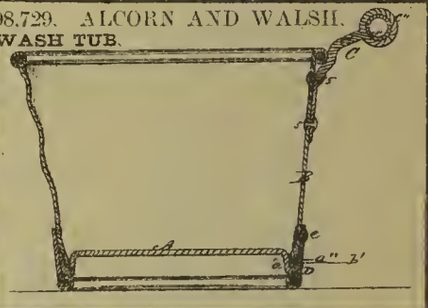


98,727. W. M. WELLING. COMPOSITION RESEMBLING HORN

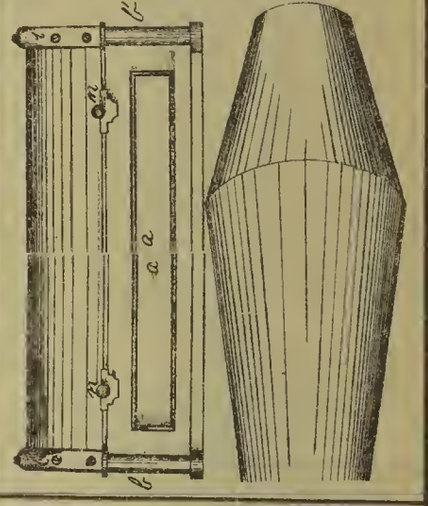
98,728. A. WILCOX. MOLDER'S FLASK.



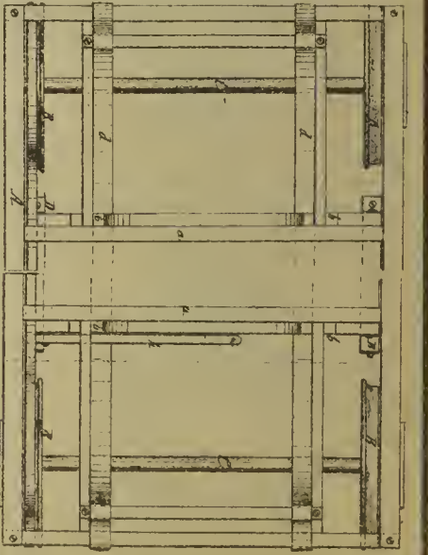
98,729. ALCORN AND WALSH. WASH TUB.



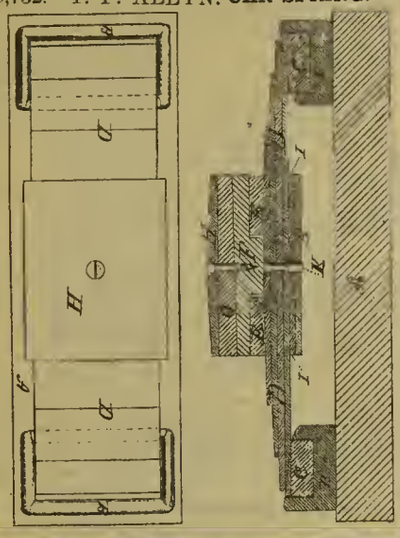
98,730. W. G. ALGEO. COFFIN.



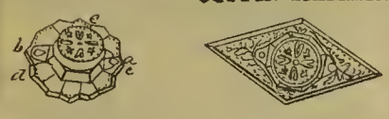
98,731. A. M. ALLEN. CAR BRAKE.



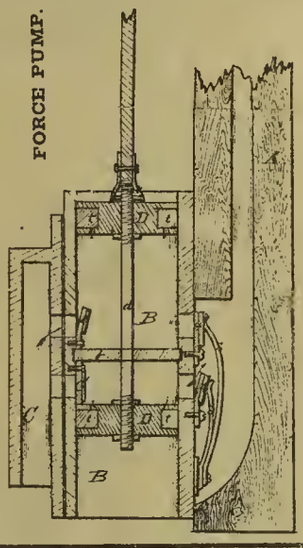
98,732. T. F. ALLYN. CAR SPRING.



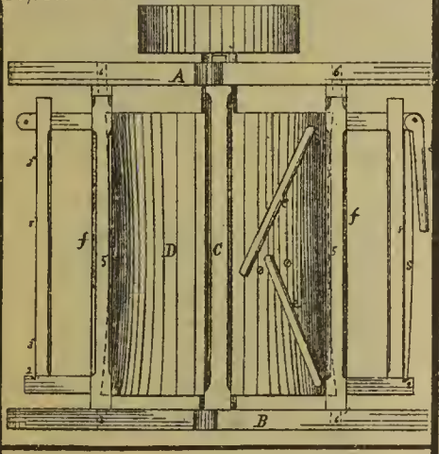
98,733. S. A. BARKER. COFFIN TRIMMING.



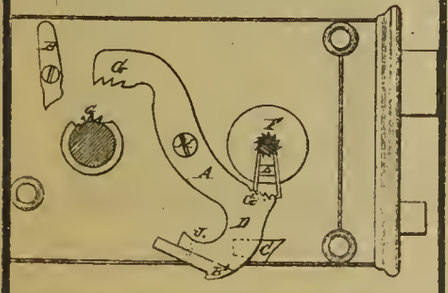
98,734. BEERS AND RAYNOR. FORCE PUMP.



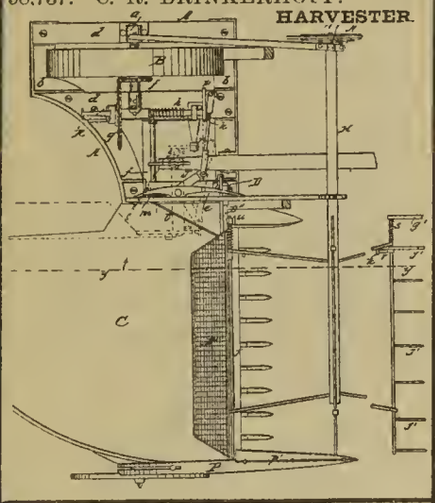
98,735. J. B. BELL. STAVE JOINTER.



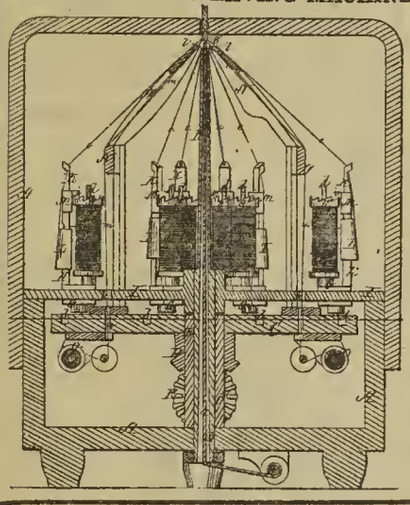
98,736. W. E. BEROLZHEIMER. KEY GUARD.



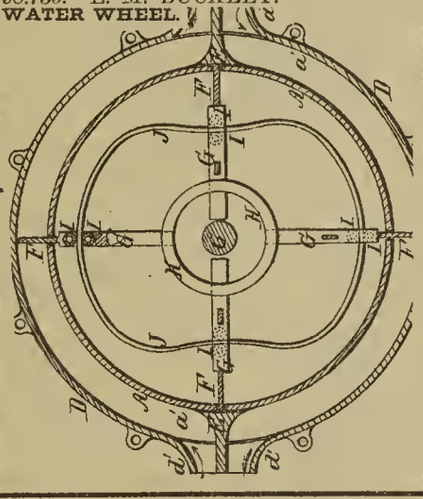
98,737. C. R. BRINKERHOFF. HARVESTER.



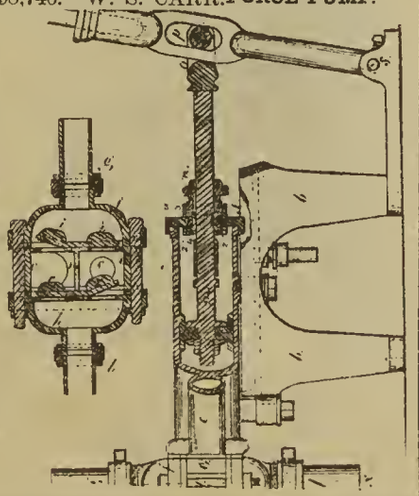
98,738. M. C. BRYANT. WEAVING MACHINE.



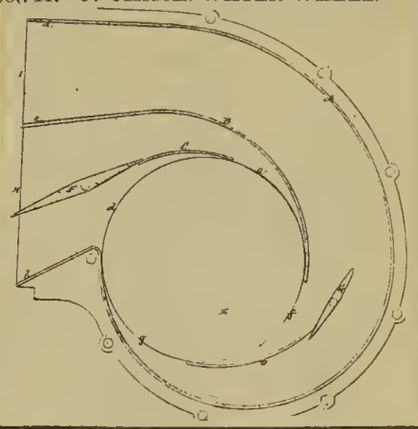
98,739. E. M. BUCKLEY. WATER WHEEL.



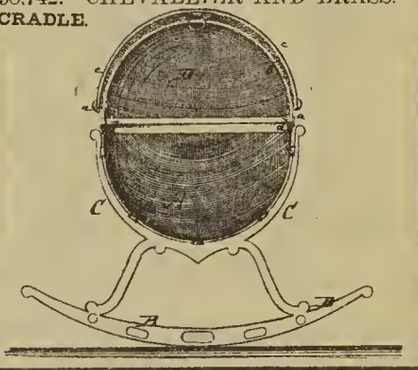
98,740. W. S. CARR. FORCE PUMP.



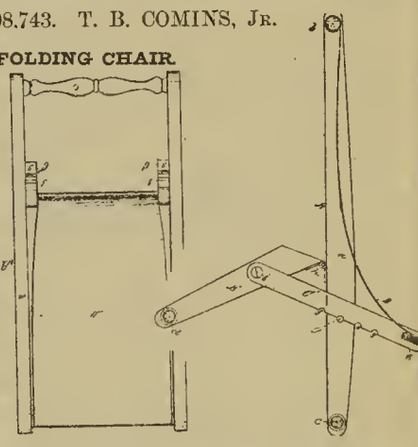
98,741. J. CHASE. WATER WHEEL.



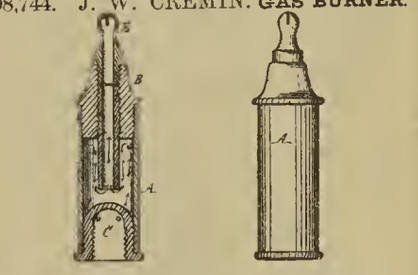
98,742. CHEVALLIER AND BRASS. CRADLE.



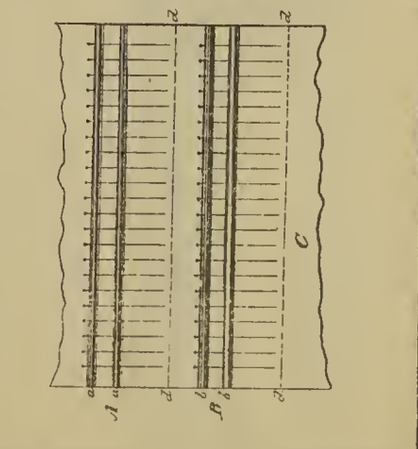
98,743. T. B. COMINS, Jr. FOLDING CHAIR.



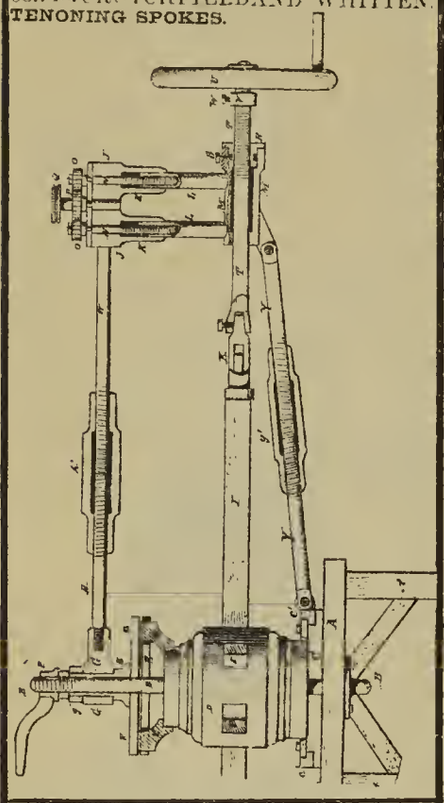
98,744. J. W. CREMIN. GAS BURNER.



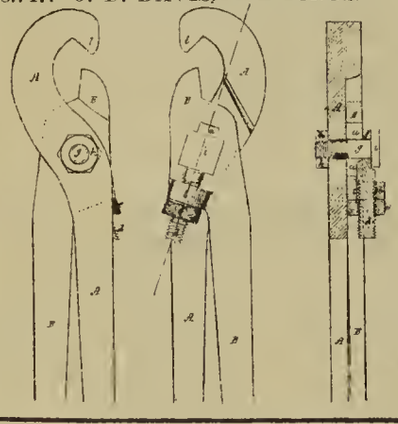
98,745. C. O. CROSBY. PAPERING PINS.



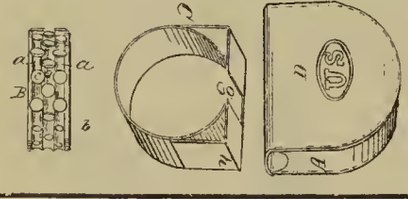
98,746. CRUTCHFIELD AND WHITTEN. TENONING SPOKES.



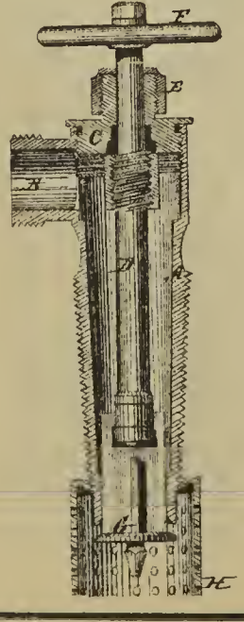
98,747. J. D. DAVIS. PIPE TONGS.



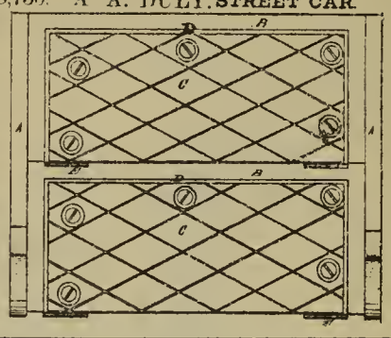
98,748. S. A. DAY. CARTRIDGE BOX.



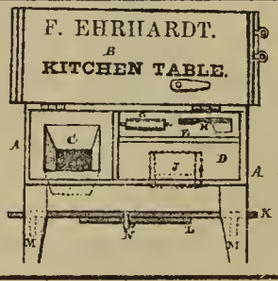
98,749. J. H. DORST. FAUCET.



98,750. A. A. DULY. STREET CAR.

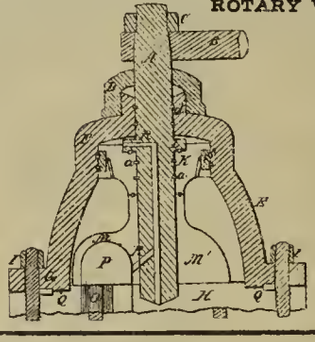


98,751. F. EHRHARDT. KITCHEN TABLE.

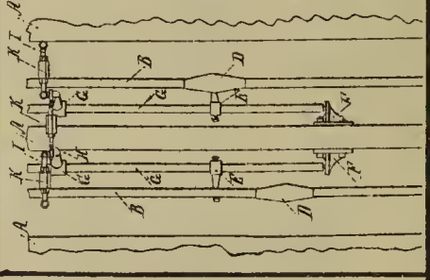


98,752. W. W. FIFIELD. SASH CORD GUIDE.

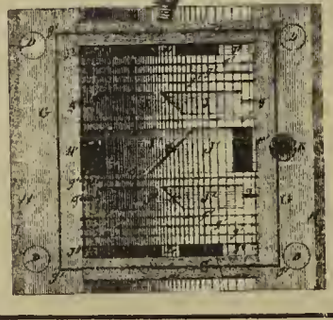
98,753. I. W. FORBES. ROTARY VALVE.



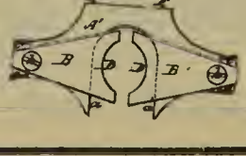
98,754. I. W. FORBES. STEAM ENGINE VALVE GEAR.



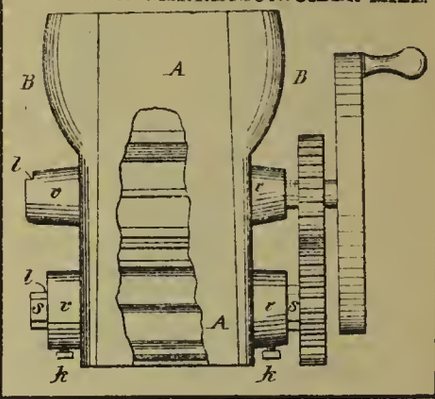
98,755. I. W. FORBES. BALANCE VALVE.



98,756. FRANKLIN AND CLARK. BROOM HANGER.

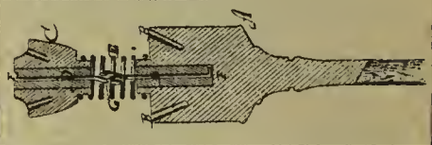


98,757. O. S. GARRETSON. CIDER MILL.

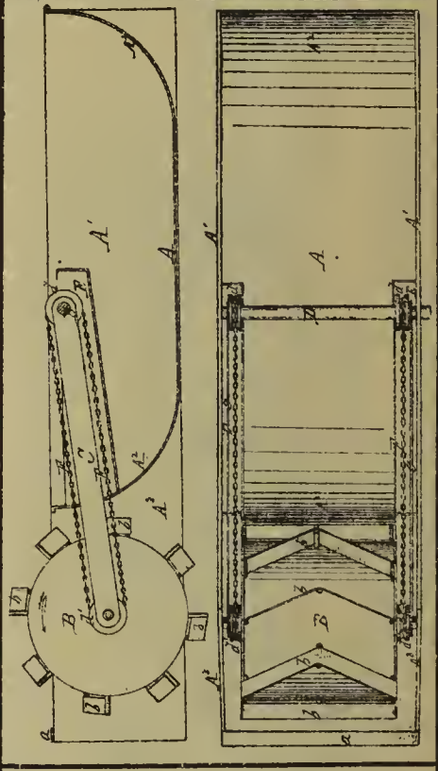


98,758. W. L. GILROY. PROCESS OF PRESERVING GREEN CORN.

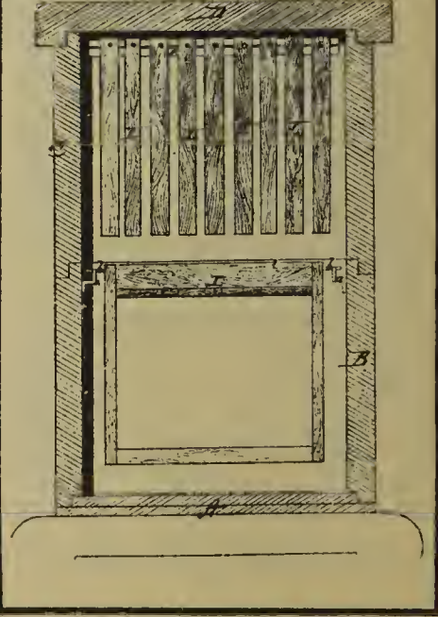
98,759. M. A. GOODENOUGH. FEATHER DUSTER.



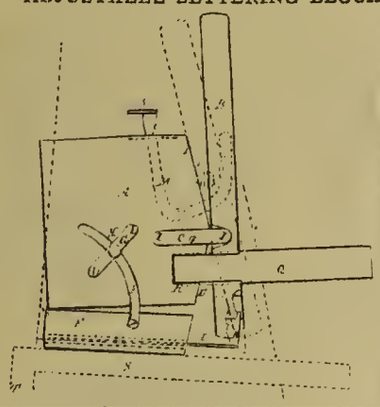
98,760. W. F. GOODWIN. PROPELLER.



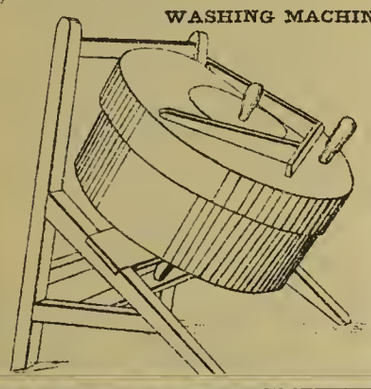
98,761. J. GOULD. BEE HIVE.



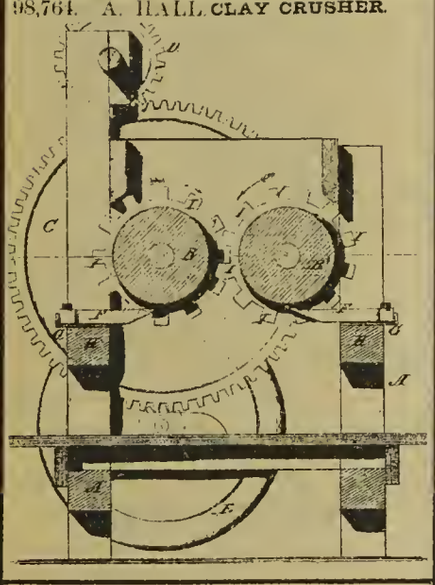
98,762. E. J. GRIFFIN.
ADJUSTABLE LETTERING BLOCK



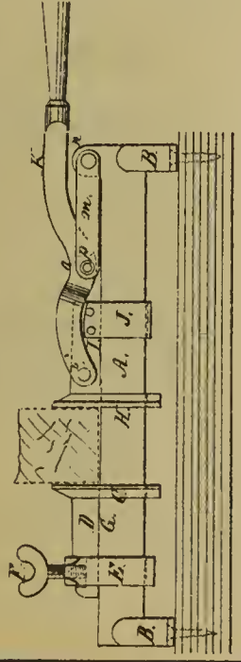
98,763. J. HABERMEHL.
WASHING MACHINE.



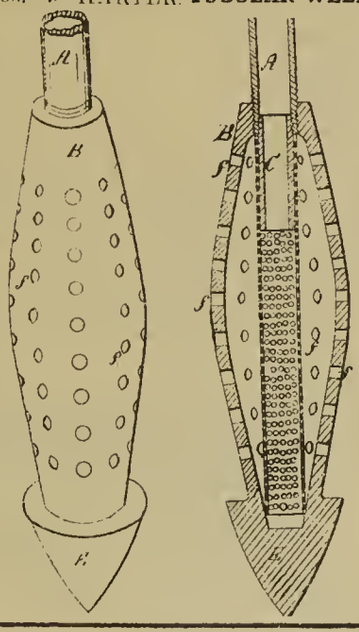
98,764. A. HALL. CLAY CRUSHER.



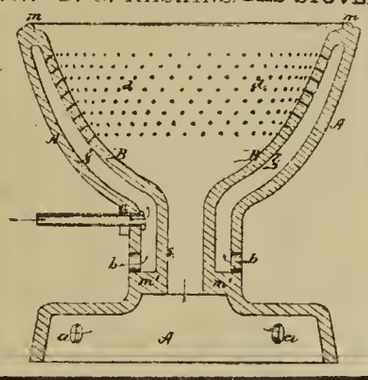
98,765. HALL AND FARRA.
SASH AND DOOR CLAMP.



98,766. J. HARTER. TUBULAR WELL.



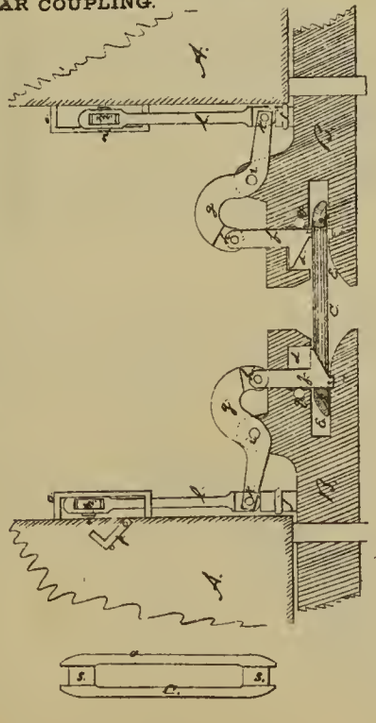
98,767. D. G. HASKINS. GAS STOVE.



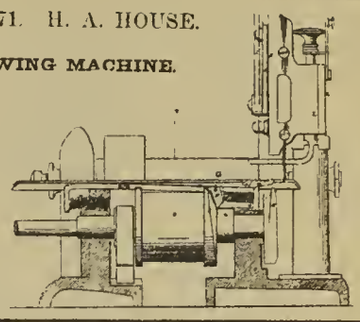
98,768. CANCELLED.

98,769. E. F. HOFMAN. PESSARY.

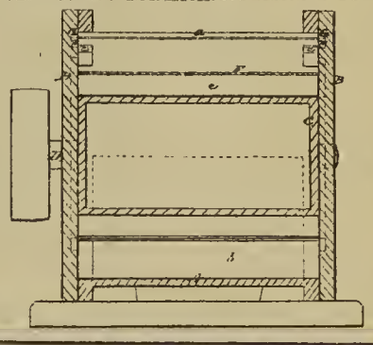
98,770. C. F. HORNBECK.
CAR COUPLING.



98,771. H. A. HOUSE.
SEWING MACHINE.

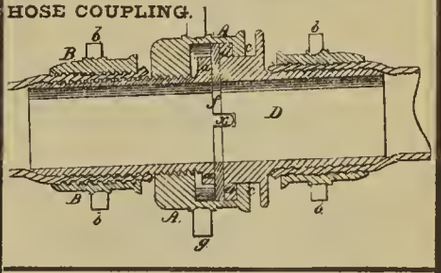


98,772. C. W. ISBELL. ROTARY PUMP.

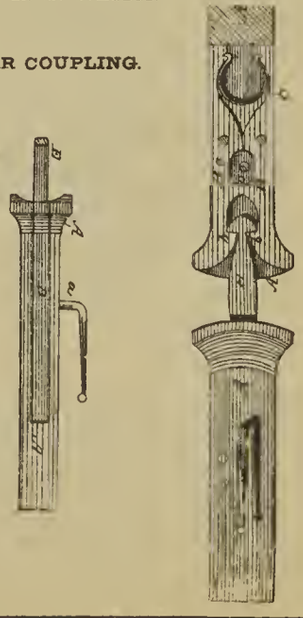


98,773. A. P. M. JEFFERS.
SPELLING BOX.

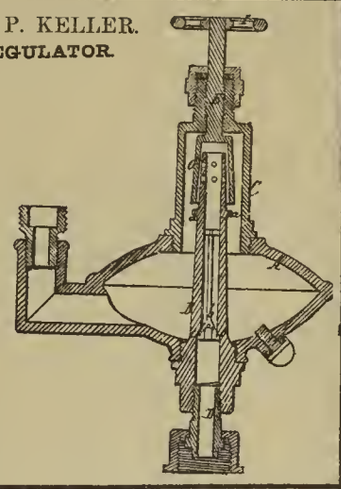
98,774. JOHNSON AND FITZGERALD.
HOSE COUPLING.



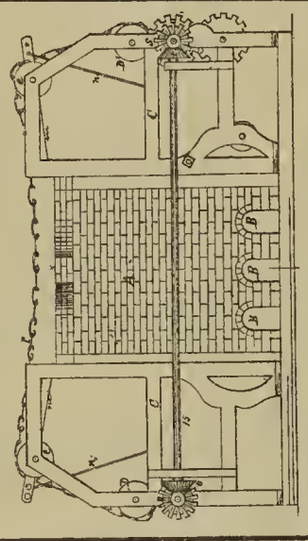
98,775. E. B. KEITH.
CAR COUPLING.



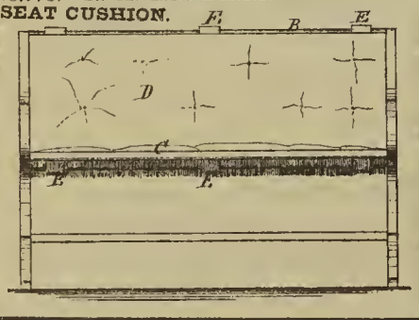
98,776. P. KELLER. GAS REGULATOR.



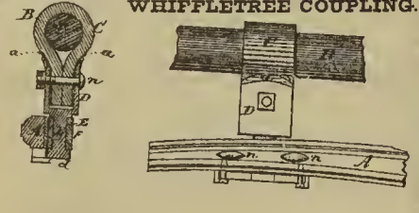
98,777. V. KELLER. ENAMELLING OVEN.



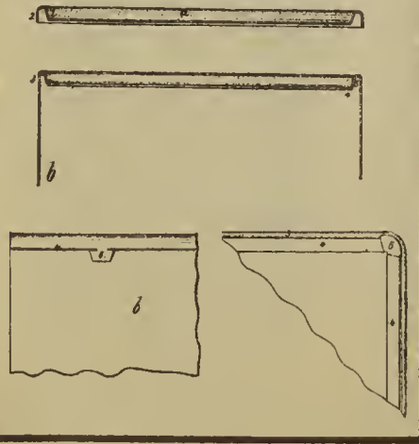
98,778. R. A. KENDALL. SEAT CUSHION.



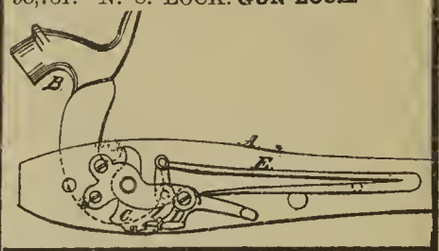
98,779. H. KILLAM. WHIFFLETREE COUPLING.



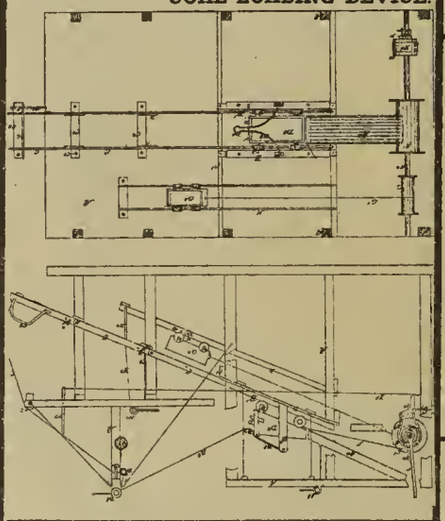
98,780. W. M. LEWIS. SHEET METAL CAN.



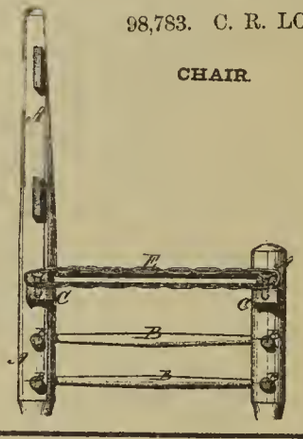
98,781. N. C. LOCK. GUN LOCK.



98,782. J. F. LOGAN. COAL LOADING DEVICE.

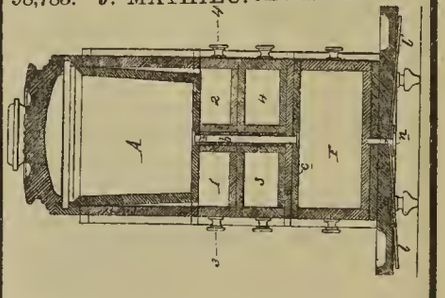


98,783. C. R. LONG. CHAIR.



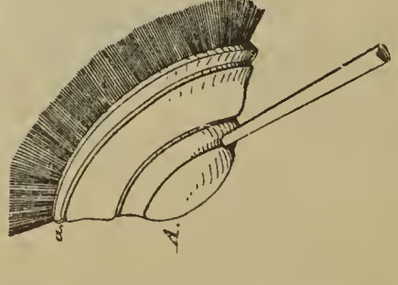
98,784. O. MARLAND. TREATING SPIRITS.

98,785. J. MATHIEU. JEWEL BOX.

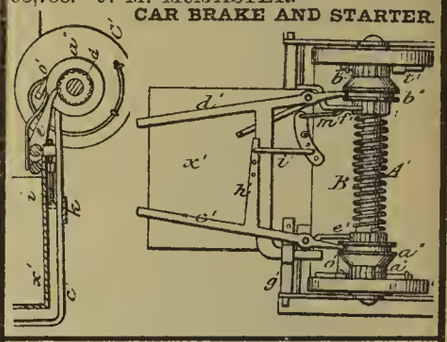


98,786. P. M. McGILL. ARTIFICIAL FUEL.

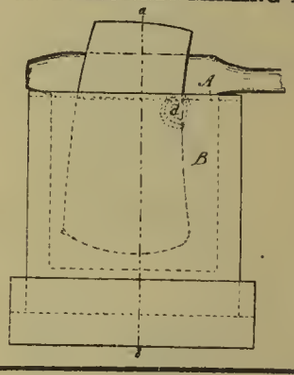
98,787. F. McLAUGHLIN. BRUSH.



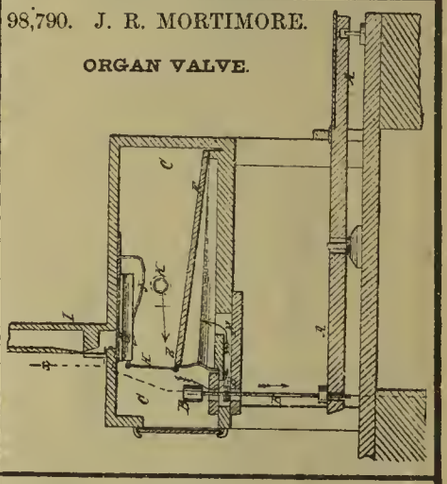
98,788. J. M. McMASTER. CAR BRAKE AND STARTER.



98,789. H. D. MORRIS. MAKING AXES.

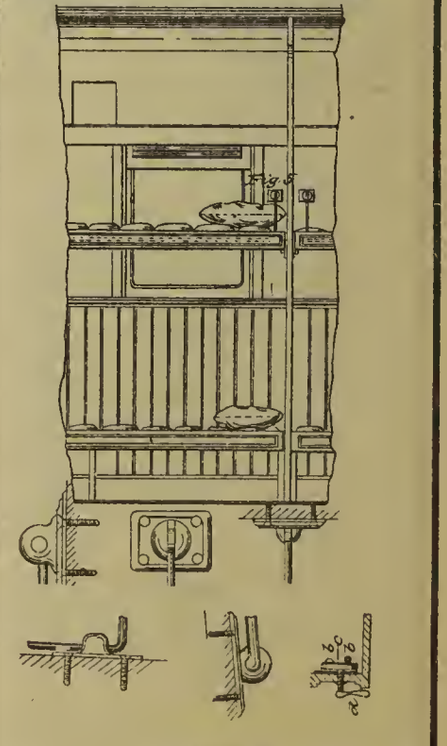


98,790. J. R. MORTIMORE. ORGAN VALVE.

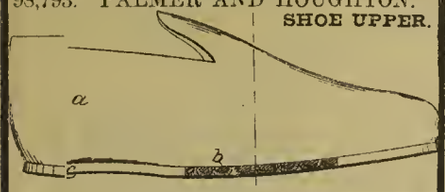


98,791. R. NORWOOD. CONCRETE PAVING BLOCK.

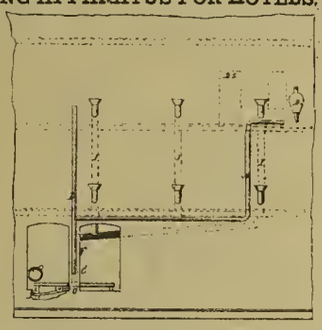
98,792. E. H. PAINE. SUSPENDING UPPER BERTHS IN SLEEPING CARS.



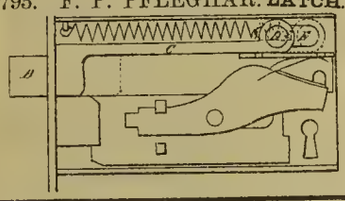
98,793. PALMER AND HOUGHTON. SHOE UPPER.



98,794. N. A. PATTERSON. COMMUNICATING APPARATUS FOR HOTELS.

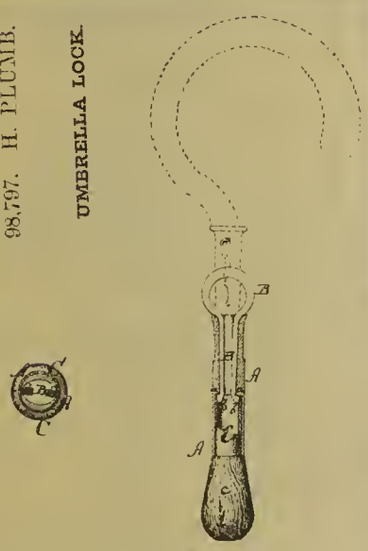


98,795. F. P. PFLEGHAR. LATCH.

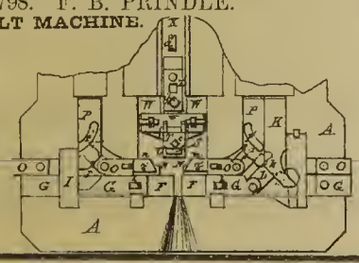


98,796. T. PILOTE. SHOEMAKER'S TOOL.

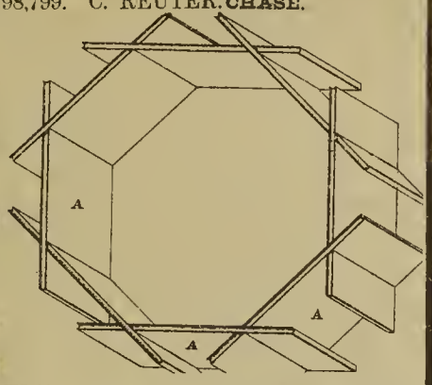
98,797. H. PLUMB. UMBRELLA LOCK.



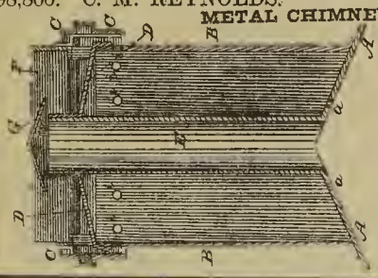
98,798. F. B. PRINDLE. BOLT MACHINE.



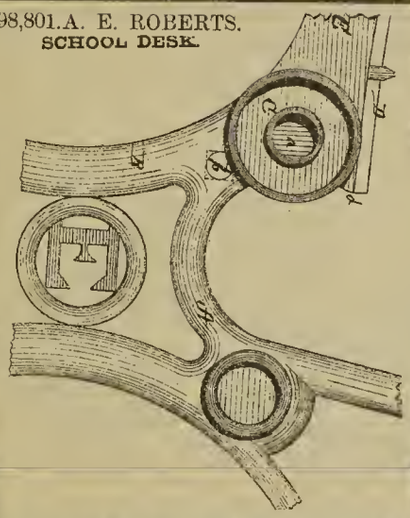
98,799. C. REUTER. CHASE.



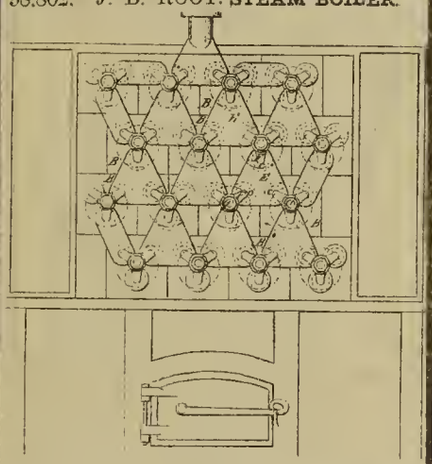
98,800. C. M. REYNOLDS. METAL CHIMNEY.



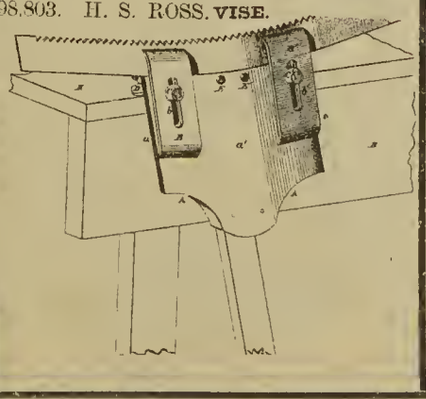
98,801. A. E. ROBERTS. SCHOOL DESK.



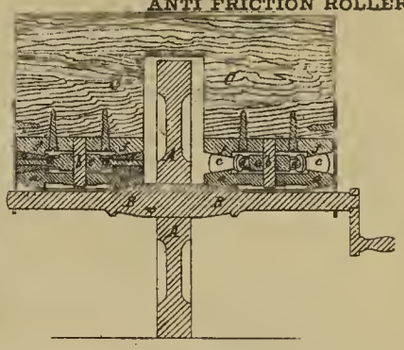
98,802. J. B. ROOT. STEAM BOILER.



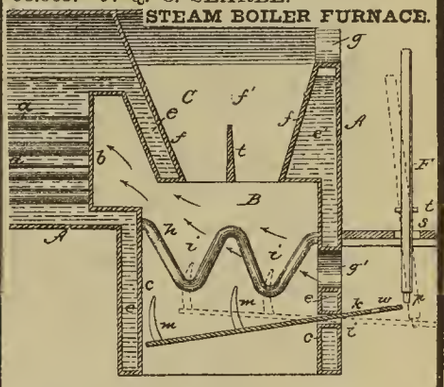
98,803. H. S. ROSS. VISE.



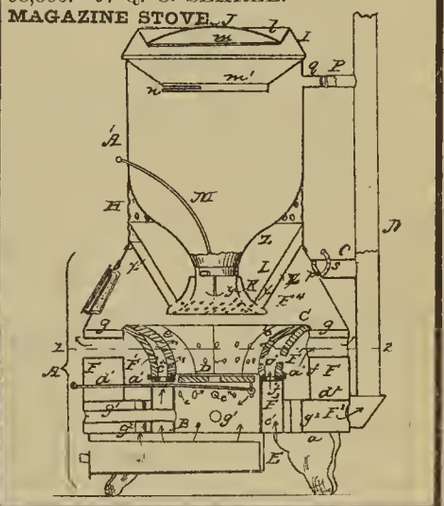
98,804. W. B. SCOTT. ANTI FRICTION ROLLER.



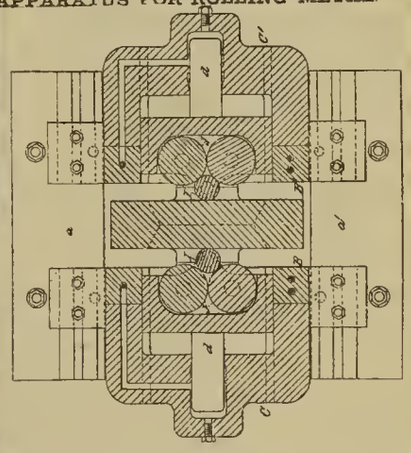
98,805. J. Q. C. SEARLE. STEAM BOILER FURNACE.



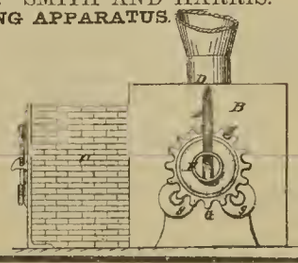
98,806. J. Q. C. SEARLE. MAGAZINE STOVE.



98,807. G. H. SELLERS. APPARATUS FOR ROLLING METAL.

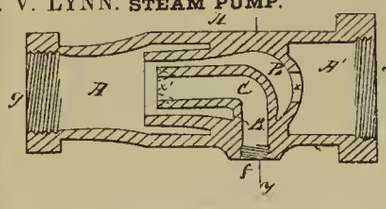


98,808. SMITH AND HARRIS. DRYING APPARATUS.

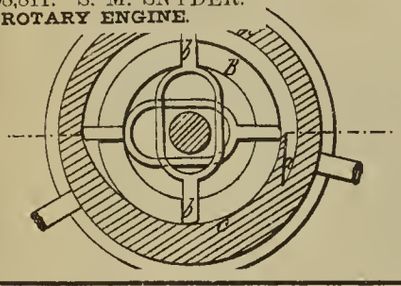


98,809. J. F. SMITH.
MEDICINAL PREPARATION.

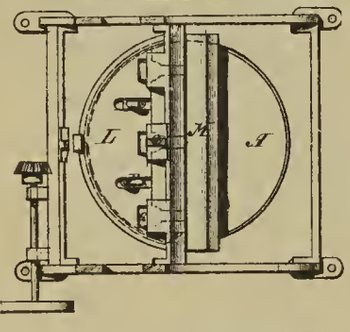
98,810. T. AND G. T. SNOWDEN AND I. V. LYNN. STEAM PUMP.



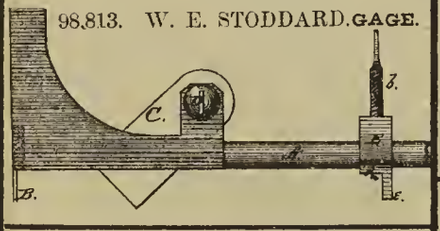
98,811. S. M. SNYDER.
ROTARY ENGINE.



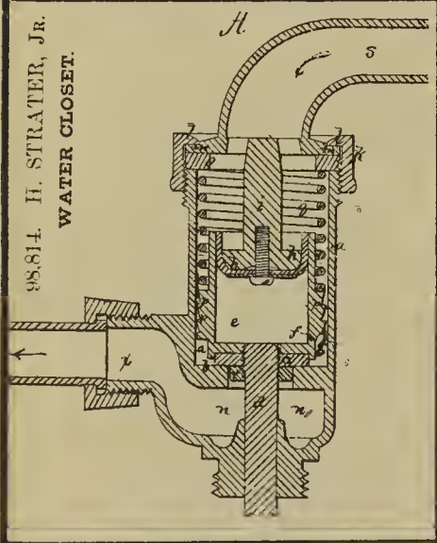
98,812. L. STEIGERT. MEAT CHOPPER.



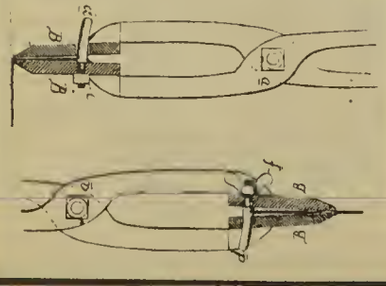
98,813. W. E. STODDARD. GAGE.



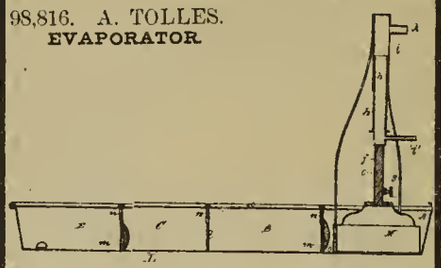
98,814. H. STRATER, JR.
WATER CLOSET.



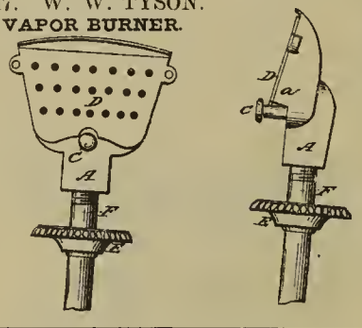
98,815. G. E. TAYLOR.
ROOFING TONGS.



98,816. A. TOLLES.
EVAPORATOR.

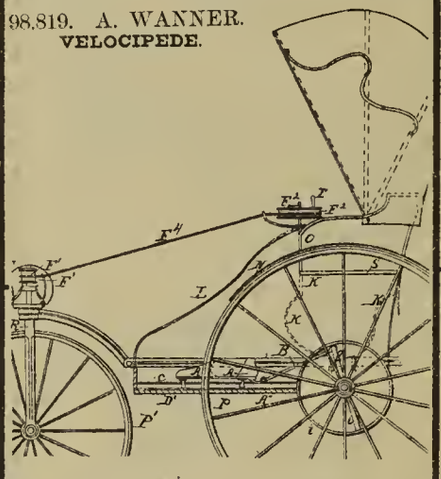


98,817. W. W. TYSON.
VAPOR BURNER.

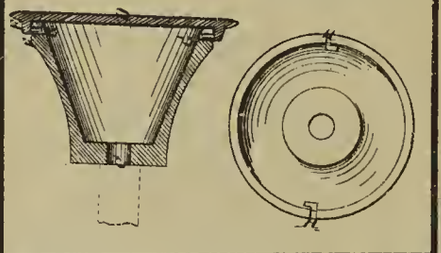


98,818. J. D. VAN ARNUM. COMPOSITION FOR COVERING STEAM BOILERS.

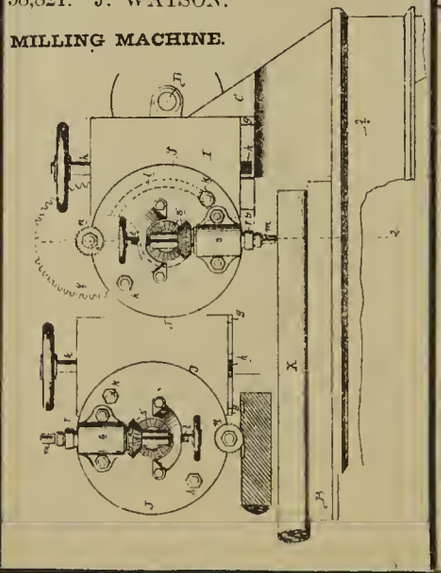
98,819. A. WANNER.
VELOCIPEDE.



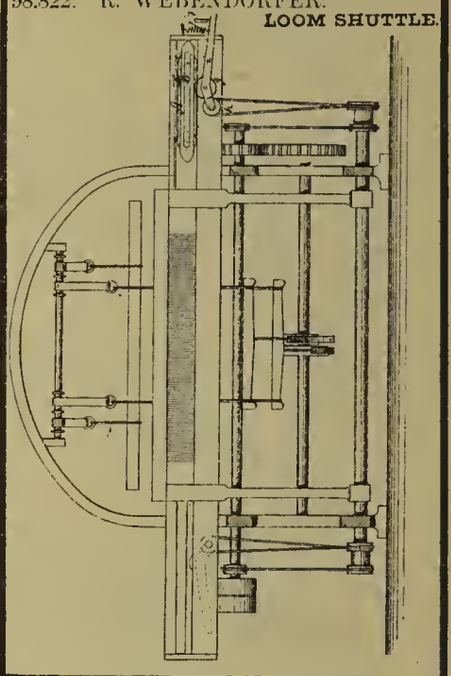
98,820. J. S. WARNER.
CRYSTAL GRINDER.



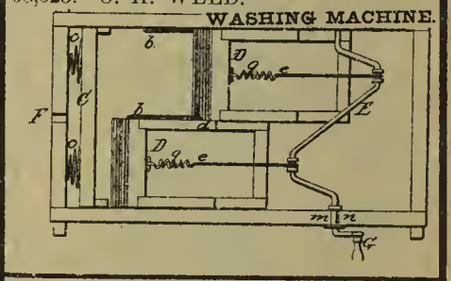
98,821. J. WATSON.
MILLING MACHINE.



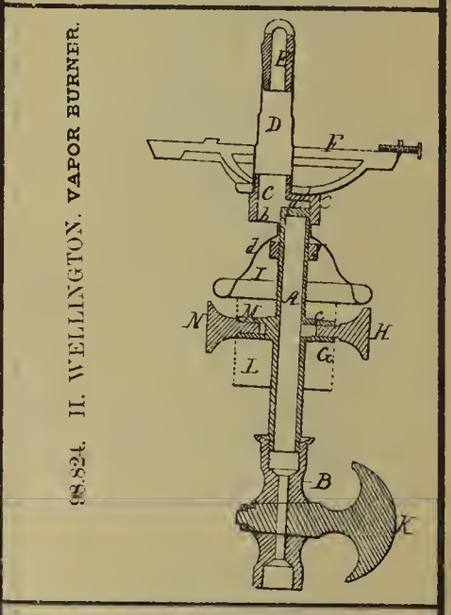
98,822. R. WEBENDORFER.
LOOM SHUTTLE.



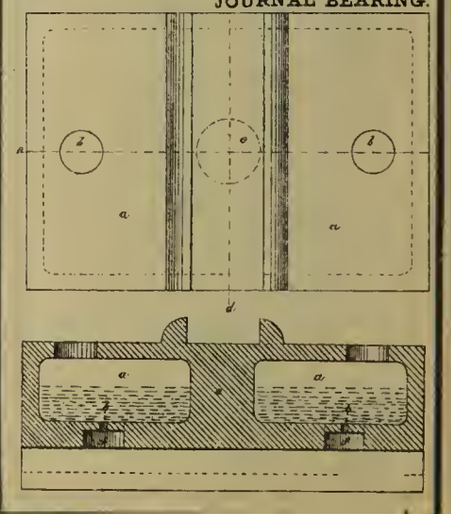
98,823. O. H. WEED.
WASHING MACHINE.



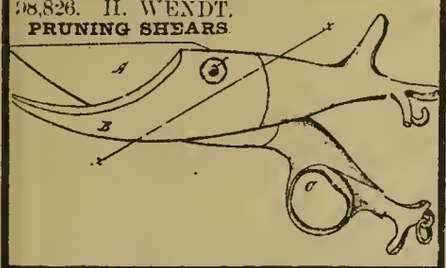
98,824. H. WELLINGTON. VAPOR BURNER.



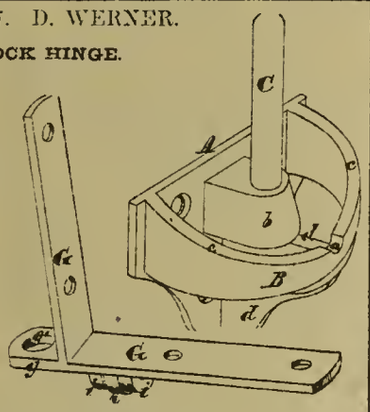
98,825. I. P. WENDELL.
JOURNAL BEARING.



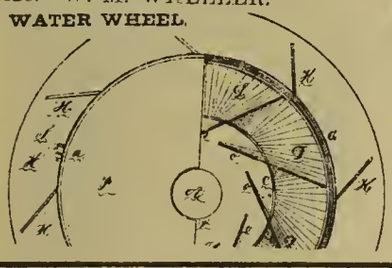
98,826. H. WENDT. PRUNING SHEARS.



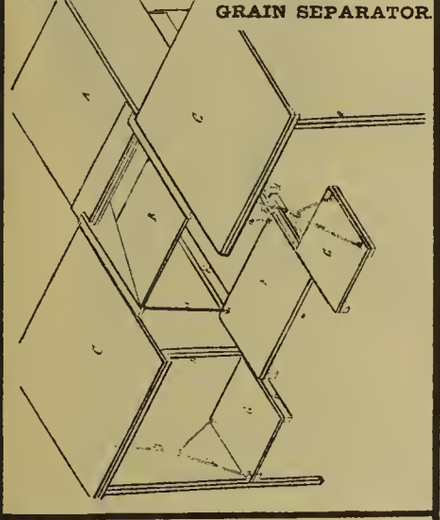
98,827. D. WERNER. LOCK HINGE.



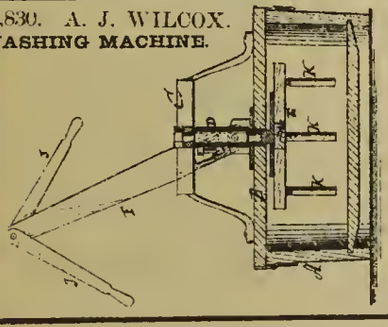
98,828. W. M. WHEELER. WATER WHEEL.



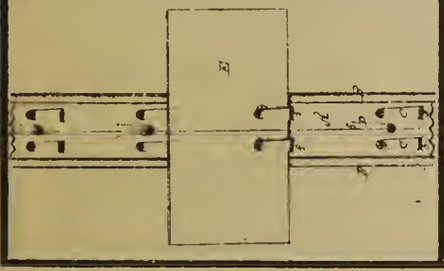
98,829. J. WHITESIDE. GRAIN SEPARATOR.



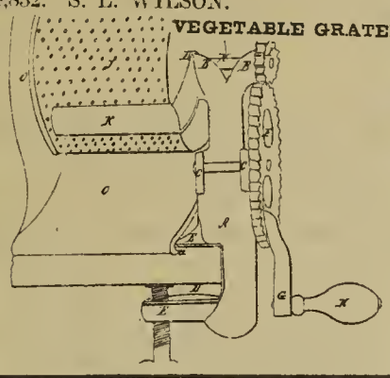
98,830. A. J. WILCOX. WASHING MACHINE.



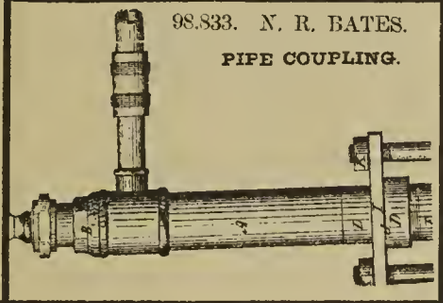
98,831. C. F. WILSON. CARD RACK.



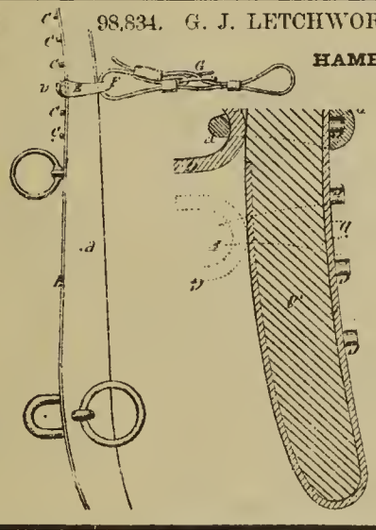
98,832. S. L. WILSON. VEGETABLE GRATER.



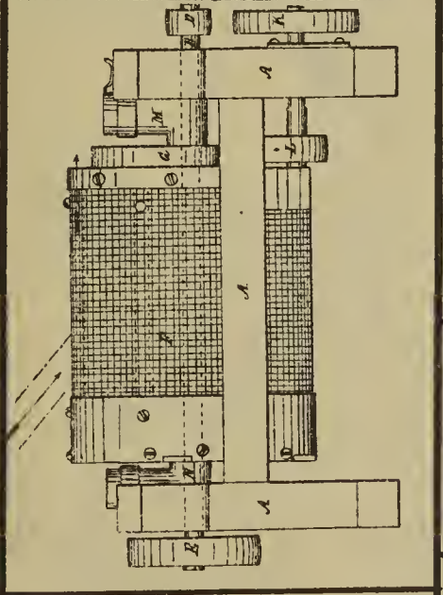
98,833. N. R. BATES. PIPE COUPLING.



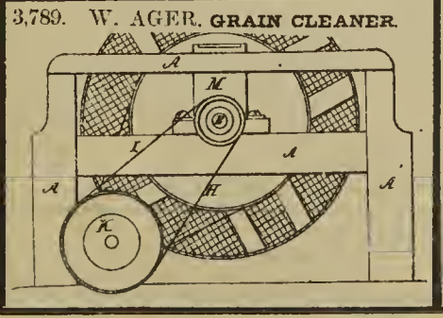
98,834. G. J. LETCHWORTH. HAME.



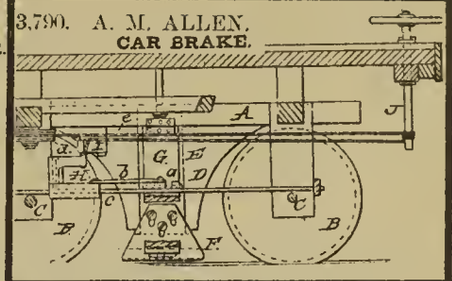
3,788. W. AGER. GRAIN CLEANER.



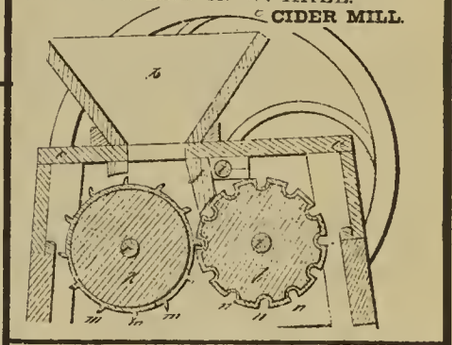
3,789. W. AGER. GRAIN CLEANER.



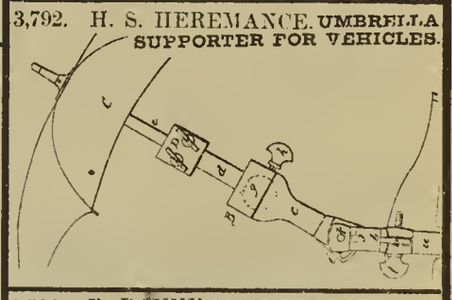
3,790. A. M. ALLEN. CAR BRAKE.



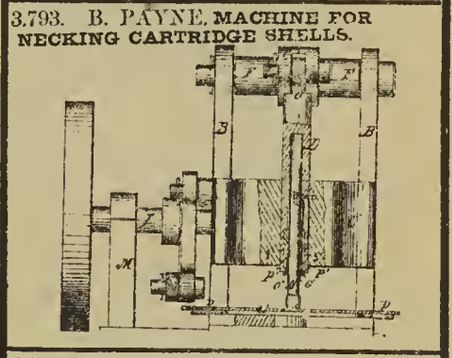
3,791. I. S. AND A. W. HALL. CIDER MILL.



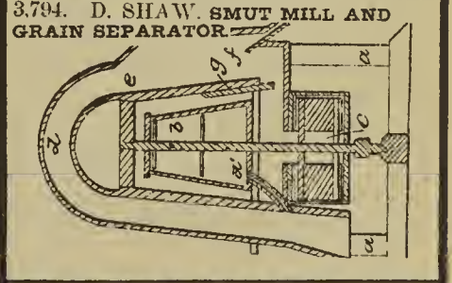
3,792. H. S. HEREMANCE. UMBRELLA SUPPORTER FOR VEHICLES.



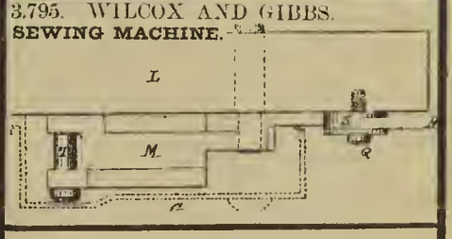
3,793. B. PAYNE. MACHINE FOR NECKING CARTRIDGE SHELLS.



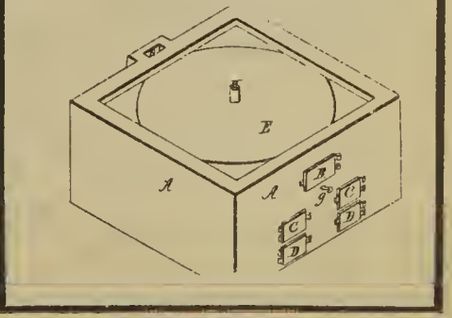
3,794. D. SHAW. SMUT MILL AND GRAIN SEPARATOR.



3,795. WILCOX AND GIBBS. SEWING MACHINE.



3,796. J. VALE. OVEN.



ILLUSTRATIONS OF PATENTS

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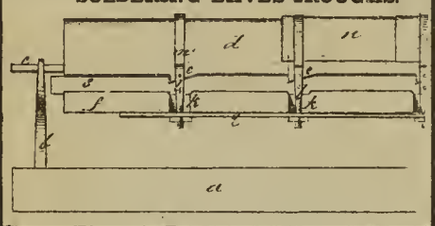
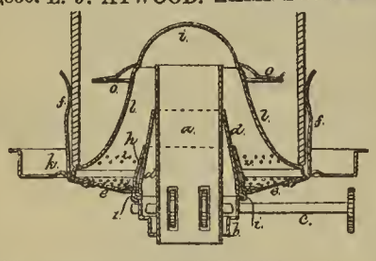
THE UNITED STATES PATENT OFFICE

JANUARY 18, 1870.

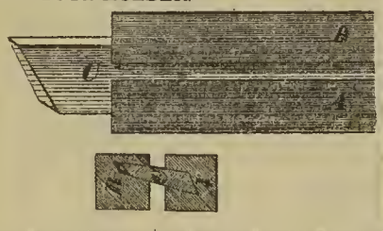
98,835, DANIEL ASIRE. **DEVICE FOR SOLDERING EAVES-TROUGHS.**



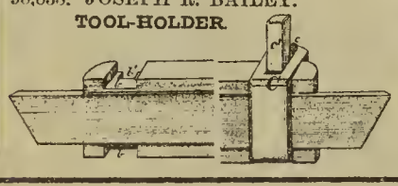
98,836. L. J. ATWOOD. **LAMP-BURNERS.**



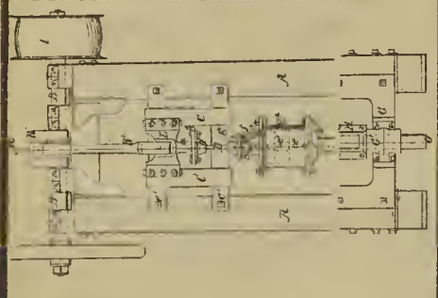
98,837, JOSEPH R. BAILEY. **TOOL-HOLDER.**



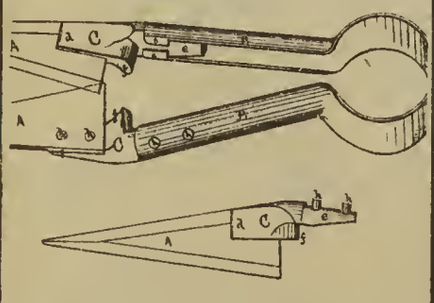
98,838. JOSEPH R. BAILEY. **TOOL-HOLDER.**



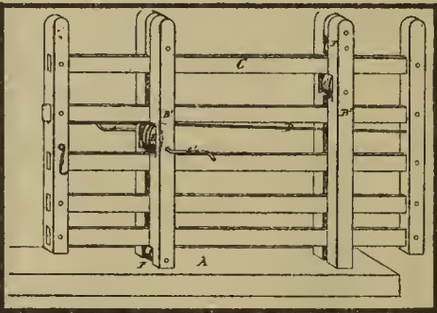
98,839, WM. BALL. **FORGING AND STAMPING-MACHINE.**



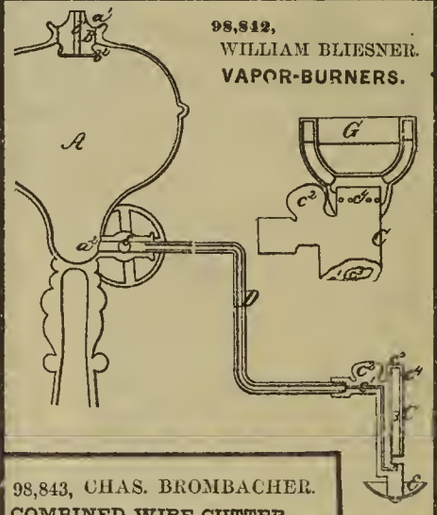
98,840, WM. B. BARNARD. **SHEEP-SHEARS.**



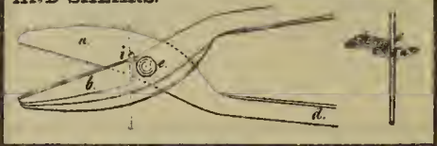
98,841, ISAAC C. BENNETT. **GATES.**



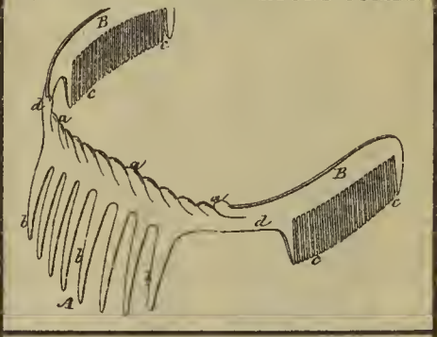
98,842, WILLIAM BLIESNER. **VAPOR-BURNERS.**



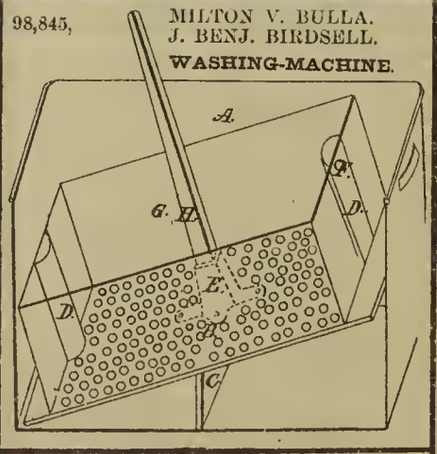
98,843, CHAS. BROMBACHER. **COMBINED WIRE-CUTTER AND SHEARS.**



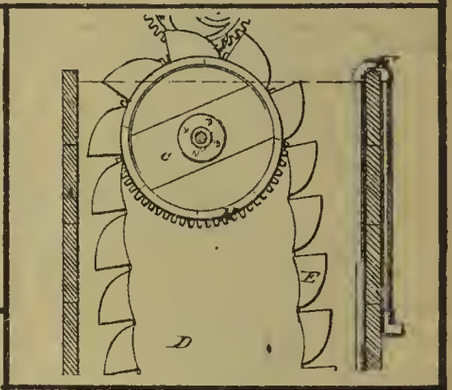
98,844, ELIAS BROWN. **ROUND COMBS.**



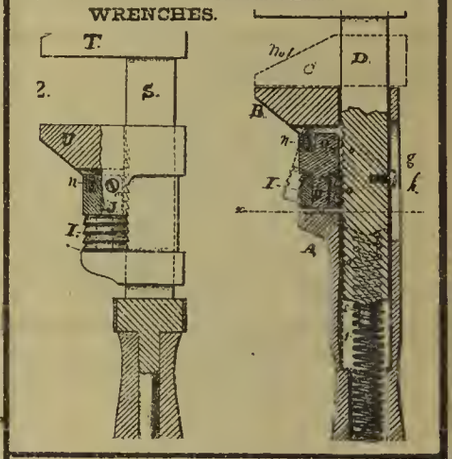
98,845, MILTON V. BULLA. J. BENJ. BIRDSELL. **WASHING-MACHINE.**



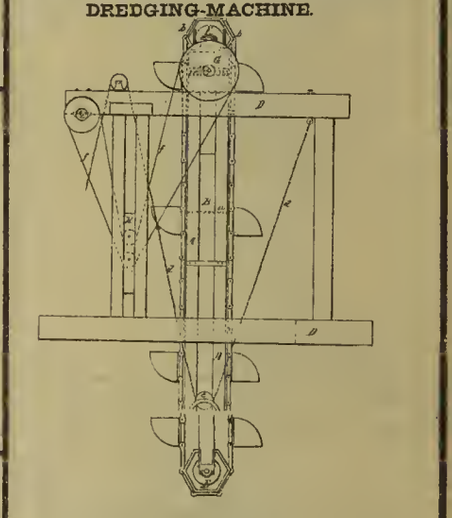
98,846, HORACE CALL. **APPARATUS FOR TRANSMITTING POWER BY THE MEDIUM OF AIR.**



98,847, GEORGE J. CAPEWELL. **WRENCHES.**

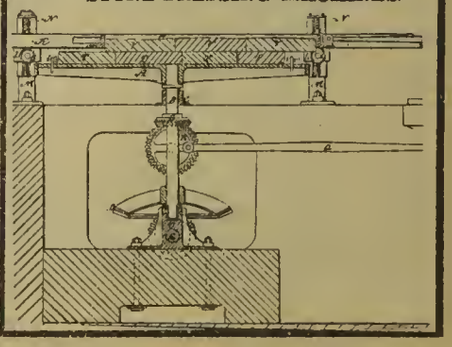


98,848, O. CHANUTE. G. S. MORISON. **DREDGING-MACHINE.**

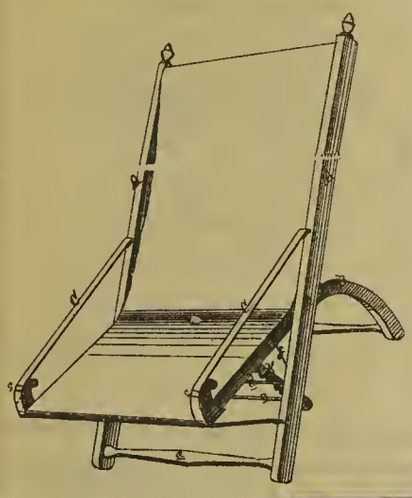


98,849, EDW. H. CLOWSER. **FOOD FOR HORSES AND CATTLE.**

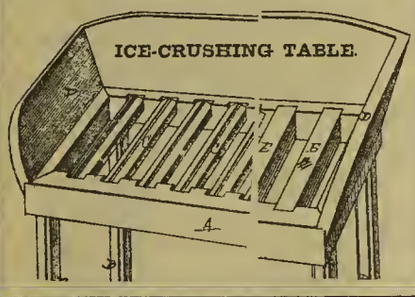
98,850, JAMES COULTER. HERBERT HARPIN. **STONE-DRESSING MACHINES.**



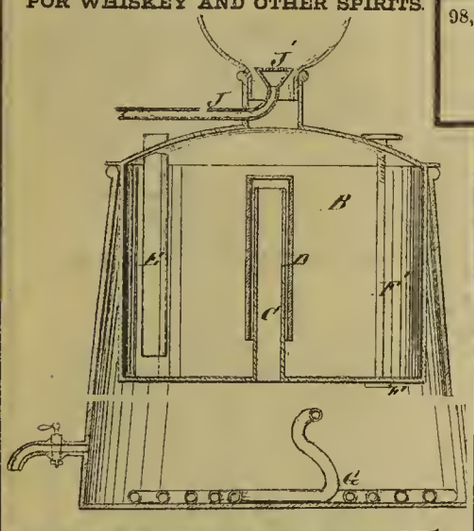
98,851, C. H. D'ARCUS.
ADJUSTABLE RECLINING-CHAIR.



98,852, D. W. DAVIS. S. H. DAVIS.
ICE-CRUSHING TABLE.

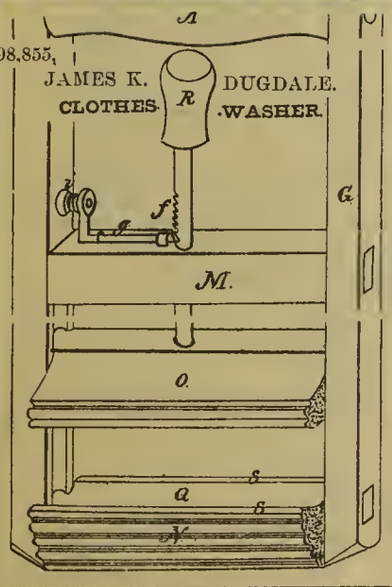


98,853, HENRY G. DAYTON. **STILLS FOR WHISKEY AND OTHER SPIRITS.**

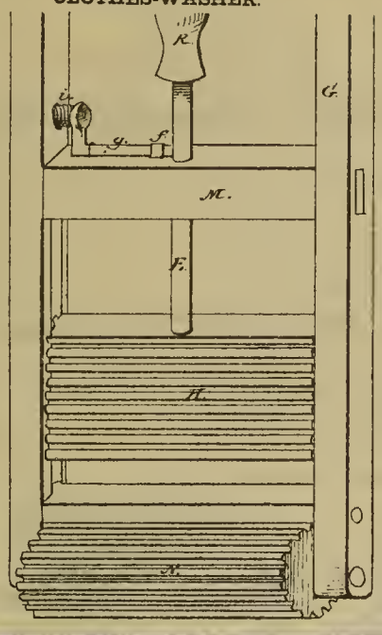


98,854. C. DITTMAN.
EXPLOSIVE COMPOUND.

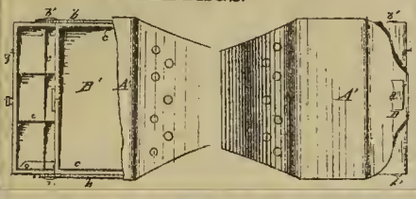
98,855, JAMES K. DUGDALE.
CLOTHES-WASHER.



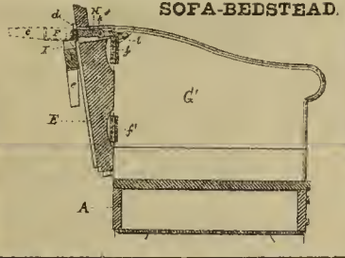
98,856, JAMES K. DUGDALE.
CLOTHES-WASHER.



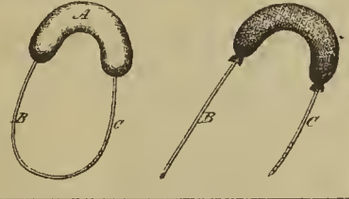
98,857, GEORGE W. ELLIOTT.
SADDLE-BAGS.



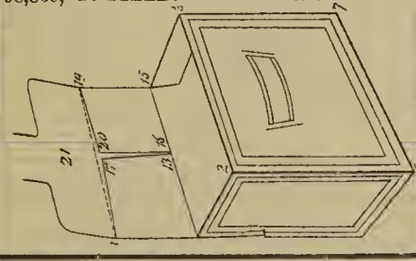
98,858, WILLIAM FARSON.
SOFA-BEDSTEAD.



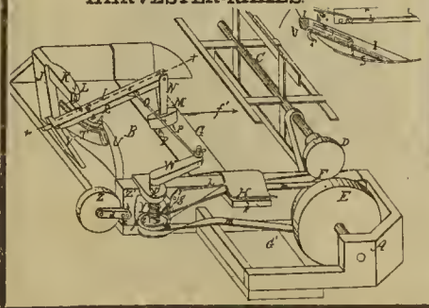
98,859, EDWARD G. FAST.
TRAVELLING SLEEPING-CUSHION.



98,860, F. FIELD. **PAPER BOX.**

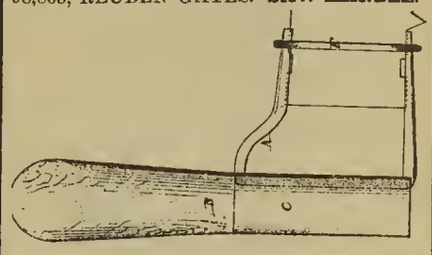


98,861, JEROME FRENCH.
HARVESTER-RAKES.

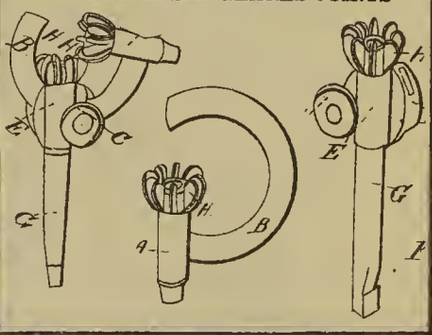


98,862. P. M. CRANE. EDWD. V. GARDNER, **COMPOSITION FOR COATING SHIPS, BOATS.**

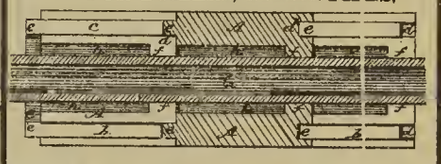
98,863, REUBEN GATES. **SAW-HANDLE.**



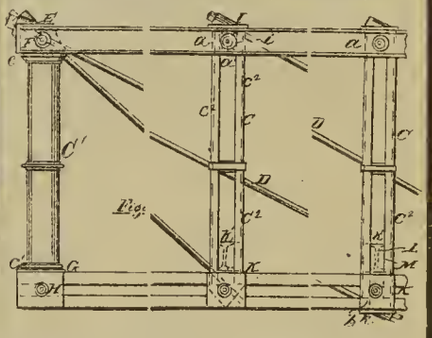
98,864, G. F. GREEN.
UNIVERSAL-GEARED JOINTS



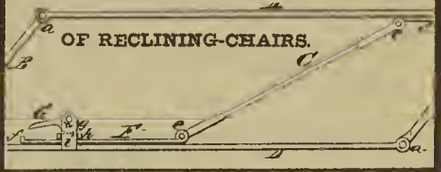
98,865. WASHINGTON HARRIS.
NON-CONDUCTING COVERING FOR BOILERS, STEAM-PIPES.



98,866, GEO. P. HERTHEL, **BRIDGES.**

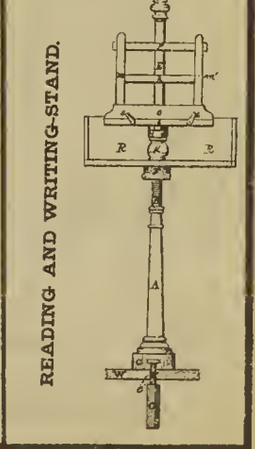


98,867, JAMES G. HOLMES.
STOP FOR THE HINGED FRAME OF RECLINING-CHAIRS.

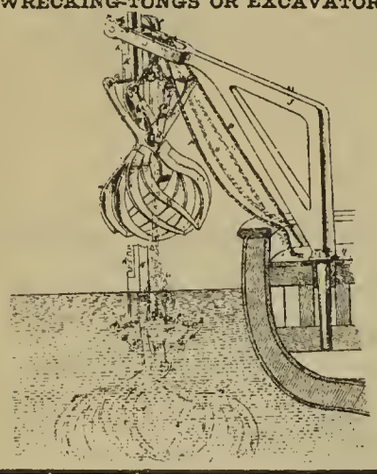


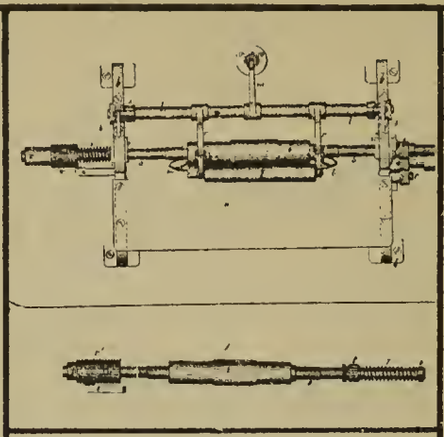
98,868, **OAR.** WILLIAM J. HOUGH.

98,869, GEORGE HOWELL.
READING AND WRITING-STAND.

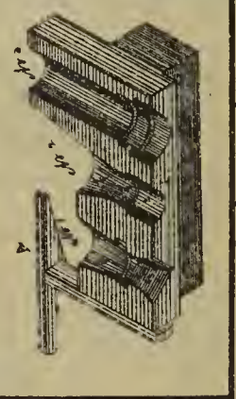


98,870, ROBERT HUNTER.
WRECKING-TONGS OR EXCAVATORS.

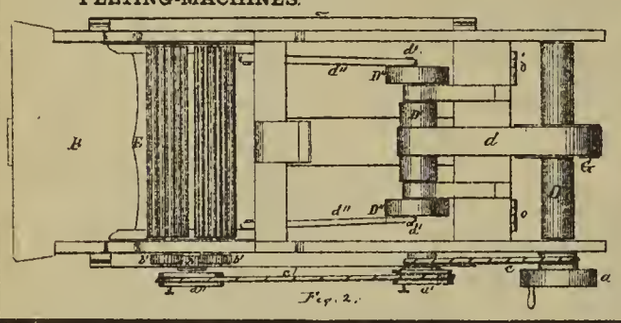




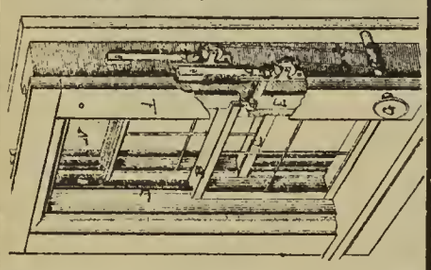
98,878, JOSEPH NICOL.
SERIES OF DIES FOR FORMING AXLES.



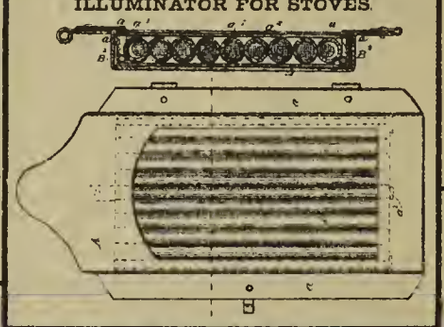
98,871, FREDERICK S. JENNINGS.
FELTING-MACHINES.



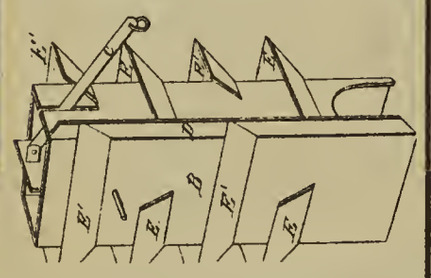
98,872, JAMES P. LABAR.
SASH-STOP, AND HOLDER.



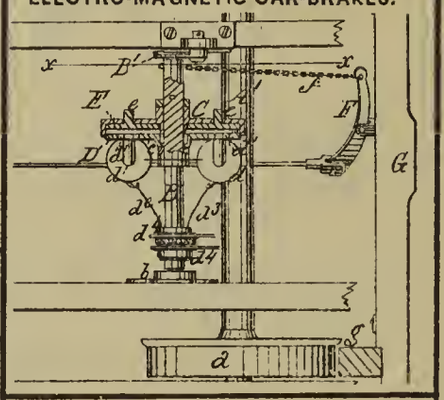
98,879, BENJAMIN NOTT.
ILLUMINATOR FOR STOVES.



98,873, GEO. W. LORE.
STOVE-PIPE DRUM.



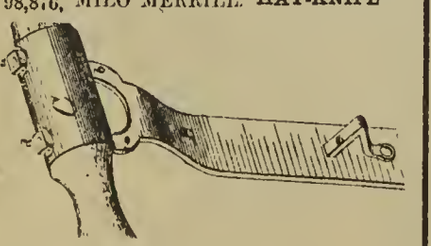
98,880, JOSEPH OLMSTED.
ELECTRO-MAGNETIC CAR-BRAKES.



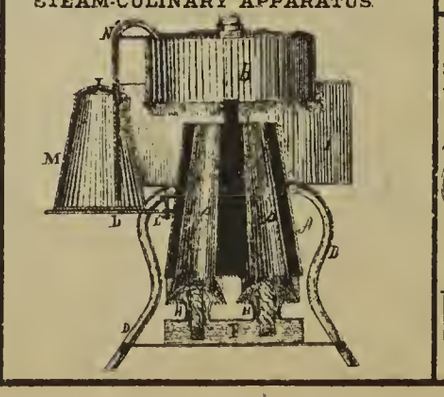
98,874, SIMON L. MADGE. **METALLIC ALLOY FOR PLOW-MOULD-BOARDS.**

98,875, PETER MAYS. PRICE MAYS.
MEDICAL COMPOUND.

98,876, MILO MERRILL. **HAY-KNIFE**

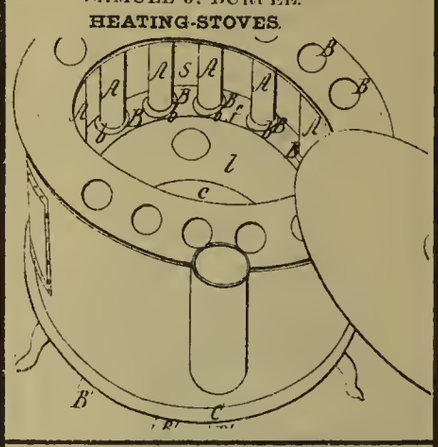


98,881, CLINTON I. PAINE.
STEAM-CULINARY APPARATUS.



98,877, FR. MEYER.
HENRY SCHILD.
CIGAR-MACHINES.

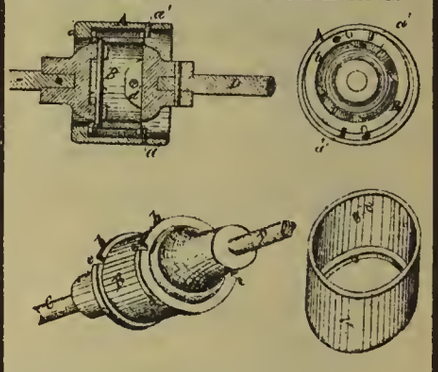
98,882, WILLIAM M. PHELPS.
SAMUEL J. BURPEE.
HEATING-STOVES.



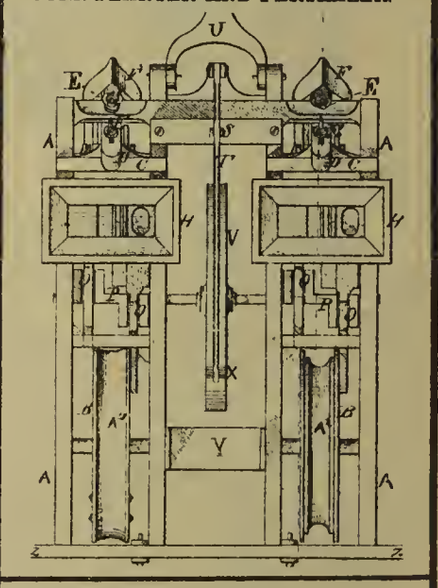
98,883, JOS. PHILIPPS.
MODE OF PRODUCING LIGHT BY THE COMBINATION OF SOLID AND LIQUID HYDROCARBONS.

98,884, FRANCIS PEYRE PORCHER.
MATERIALS FOR TANNING, DYEING, AND FOR OTHER PURPOSES.

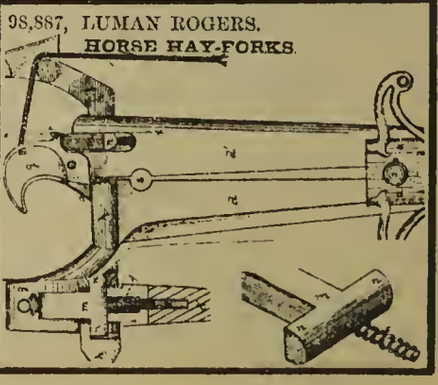
98,885, CYRUS ROBERTS.
UNIVERSAL JOINT FOR SHAFTING.



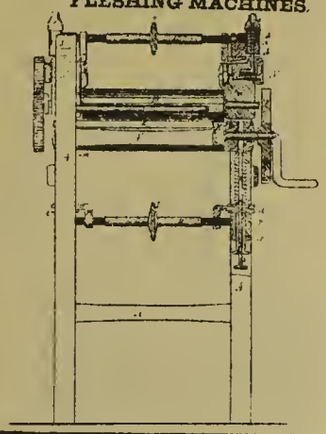
98,886, HENRY K. ROBERTS.
GEO. E. ROBERTS.
CORN-PLANTER AND FERTILIZER.



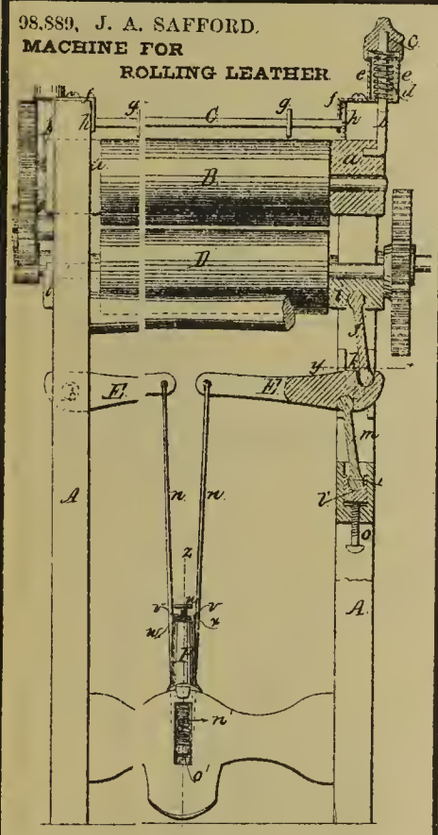
98,887, LUMAN ROGERS.
HORSE HAY-FORKS.



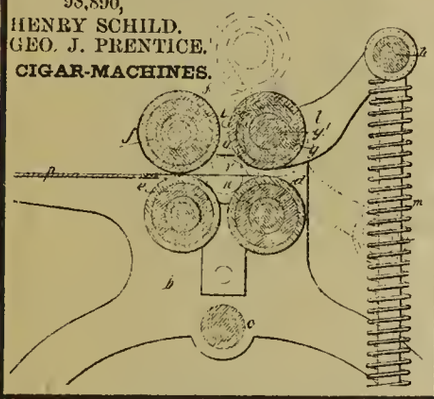
98,888, J. A. SAFFORD.
LEATHER-SPLITTING AND FLESHING MACHINES.



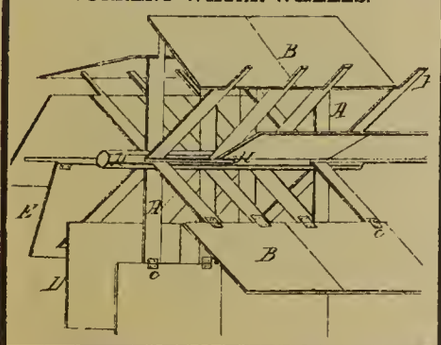
98,889, J. A. SAFFORD.
MACHINE FOR ROLLING LEATHER.



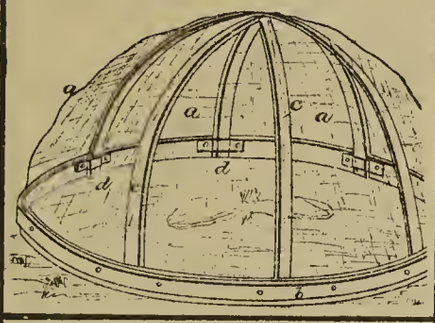
98,890,
HENRY SCHILD.
GEO. J. PRENTICE.
CIGAR-MACHINES.



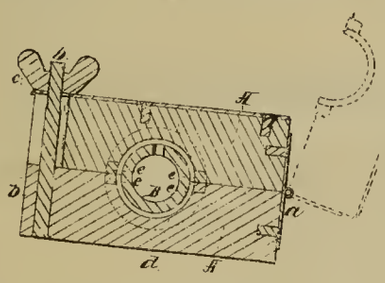
98,891, ARTAXERXES W. SORY.
CURRENT WATER-WHEELS.



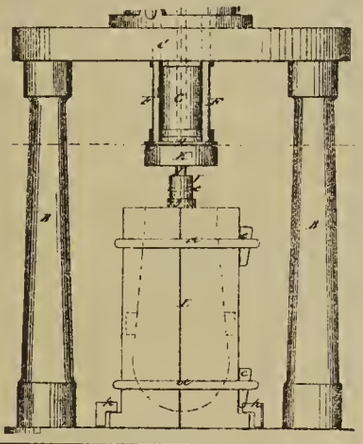
98,892, WATSON N. SPRAGUE.
PLANT-PROTECTORS.



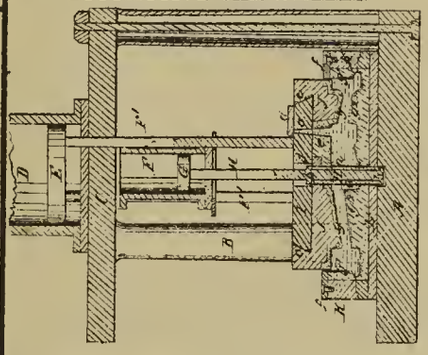
98,893, RICHARD STREET.
CLOSING LEAKS IN HOSE, PIPES, AND TUBES.



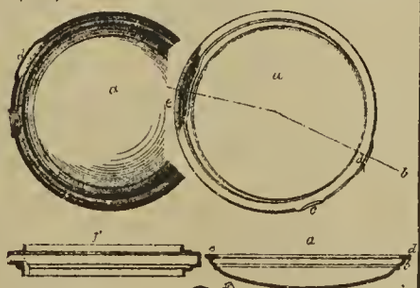
98,894, JOHN BLAKE TARR.
CASTING CANNON.



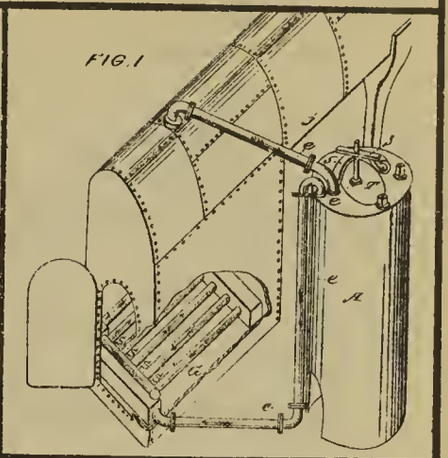
98,895, JOHN BLAKE TARR.
LOCOMOTIVE CAR-WHEELS.



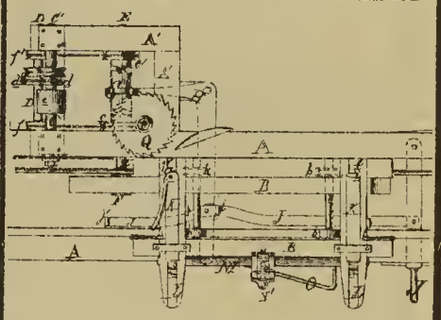
98,896, C. L. THIERY. **WATCH-CASES.**



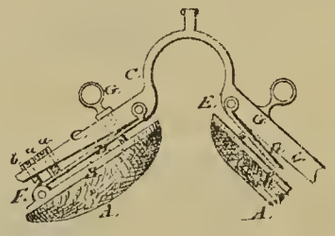
98,897, LEONARD THORN.
STEAM-DIGESTER FOR RENDERING LARD.



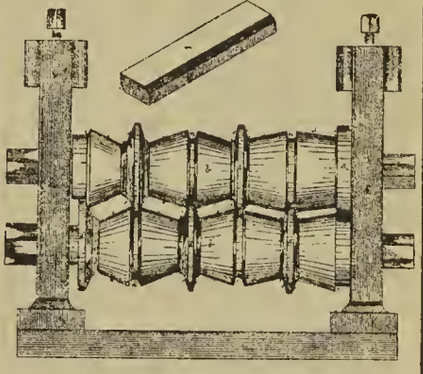
98,898, WILLIAM TUXWORTH.
MACHINERY FOR SAWING LATH.



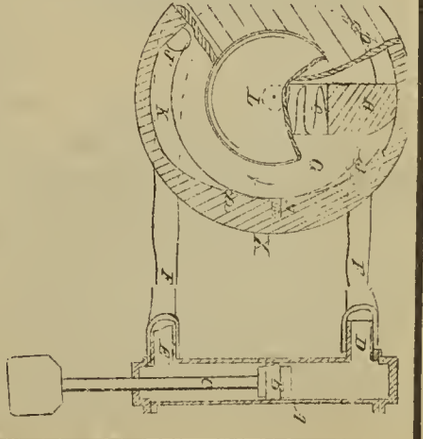
98,899, J. L. VAN WERT.
HARNESS-SADDLES.



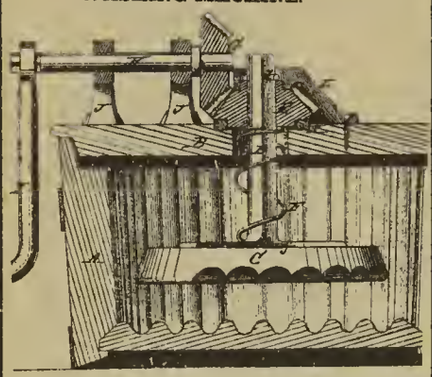
98,900, JOHN I. WILLIAMS.
APPARATUS FOR ROLLING METAL.



98,901, DE VOLSON WOOD. **PNEUMATIC RECIPROCATING MOVEMENT.**

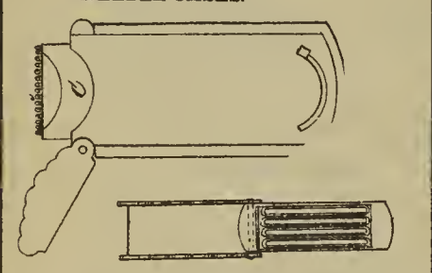


98,902, SQUIRE AINSWORTH.
WASHING-MACHINE.

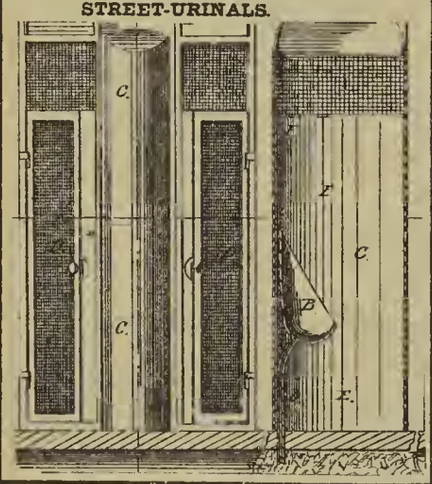


98,903, JOHN H. ATWATER.
DRAWING-KNIFE.

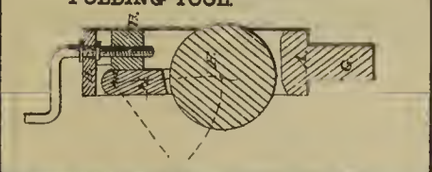
98,904, WILLIAM AVERY.
ALBERT FENTON.
NEEDLE-CASES.



98,905, MORITZ BACHARACH.
STREET-URINALS.

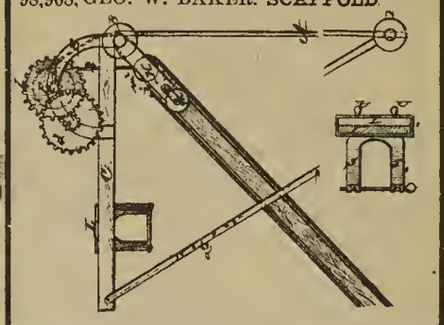


98,906, A. H. BAILY.
WILL. G. BRATTON.
LEATHER-CHANNELLING AND FOLDING TOOL.



98,907, W. N. BAILEY.
COMBINED LATCH AND LOCK.

98,908, GEO. W. BAKER. **SCAFFOLD.**



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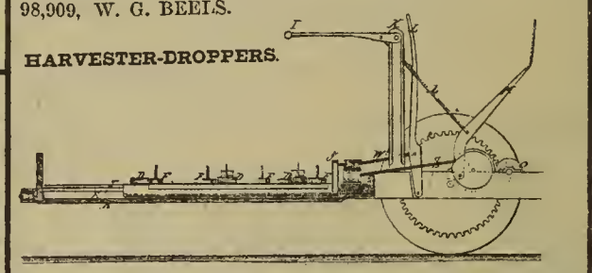
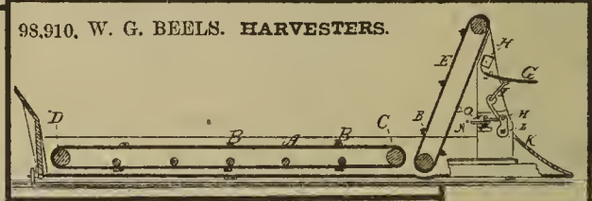
HARVESTER-DROPPERS.

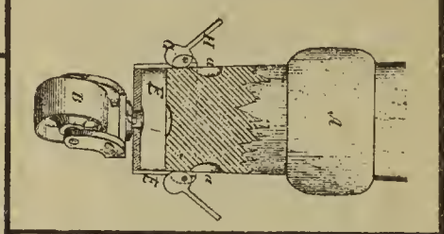


98,910, W. G. BEELS. **HARVESTERS.**

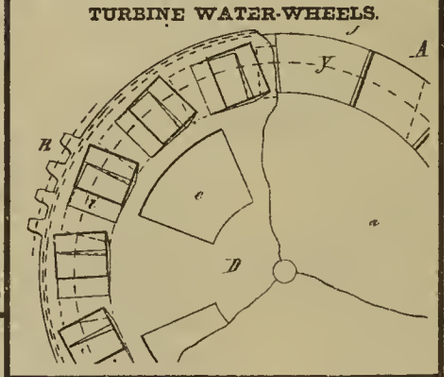


98,911, R. O. BENTON.
PLASTIC ROOFING-COMPOUNDS.

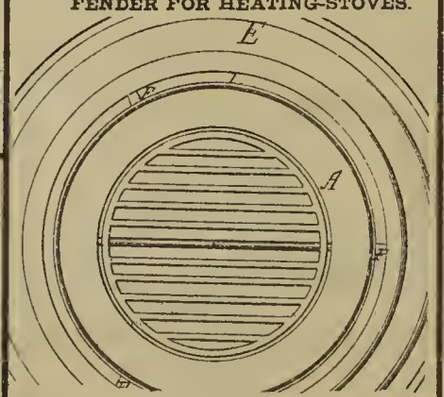
98,912, LEOPOLD BERTSCHE.
CASTER FOR FURNITURE.



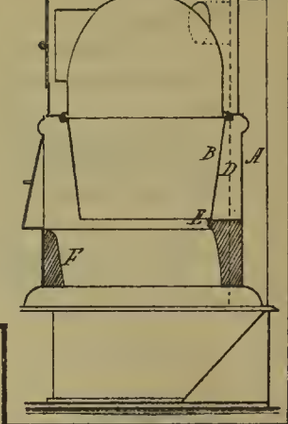
98,913, HUGH BOYLE.
TURBINE WATER-WHEELS.



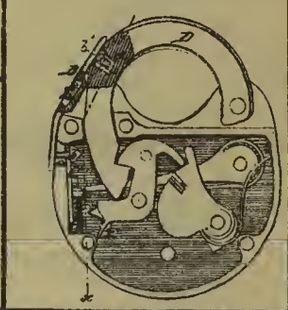
98,914, N. A. BOYNTON.
FENDER FOR HEATING-STOVES.



98,915, N. A. BOYNTON.
BASE BURNING STOVE.

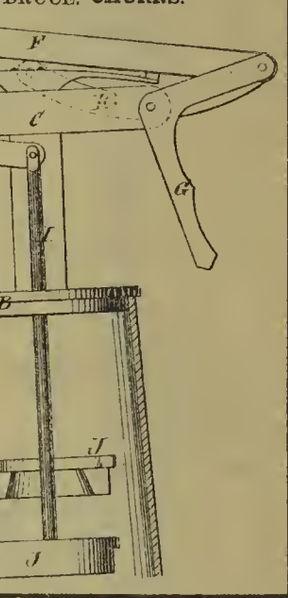


98,916,
W. B. BRITTINGHAM.
TANNING AND STUFFING LEATHER.

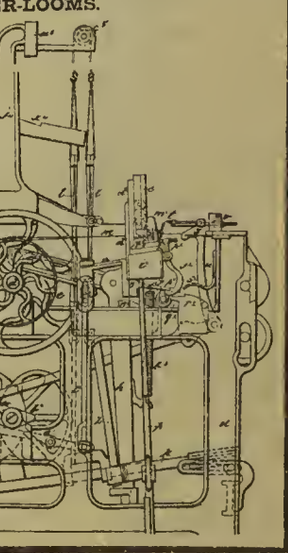


98,917, FRANKLIN W. BROOKS.
SEAL-LOCKS.

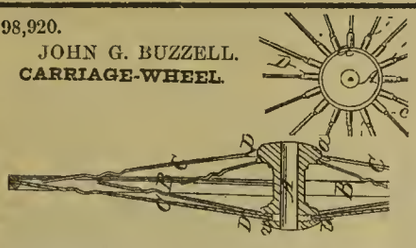
98,918, S. W. BRUCE. **CHURNS.**



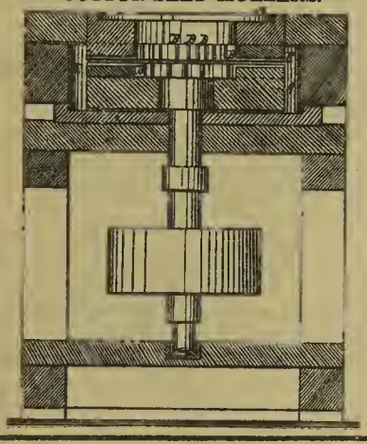
98,919,
POWER-LOOMS.



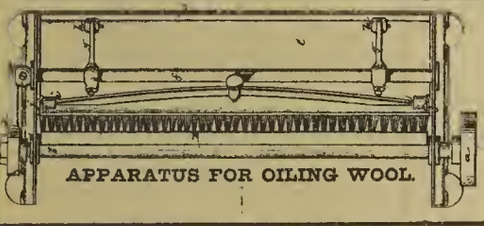
98,920.
JOHN G. BUZZELL.
CARRIAGE-WHEEL.



98,921, W. P. CALLAHAN
D. R. DE RUSH.
COTTON-SEED HULLERS.



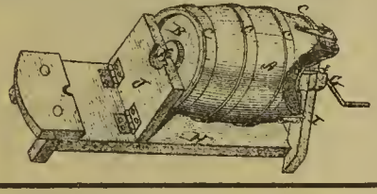
98,922, THOMAS A. CAMPBELL.



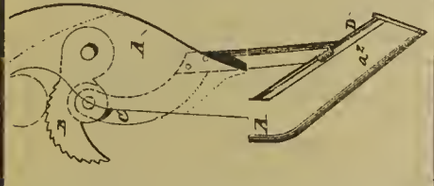
APPARATUS FOR OILING WOOL.

98,923, JOHN CARLIN. **PLATE-HOLDER.**

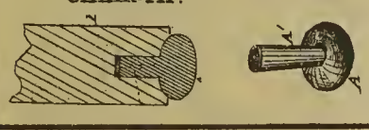
98,924, JOHN CHAPPLE. **CHURNS.**



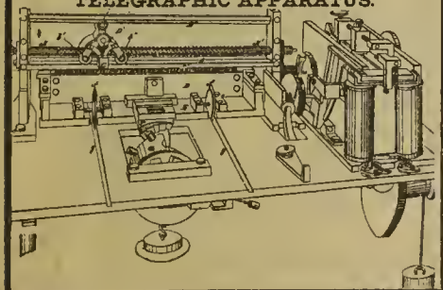
98,925, JOHN CLARK. **PIPE-TONGS.**



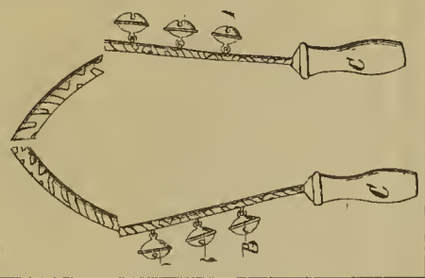
98,926, EDWARD COOGAN.
CHAIR-TIP.



98,927, HENRY COOK.
TELEGRAPHIC APPARATUS.



98,928, S. PARK COON.
SKIPPING-ROPE.



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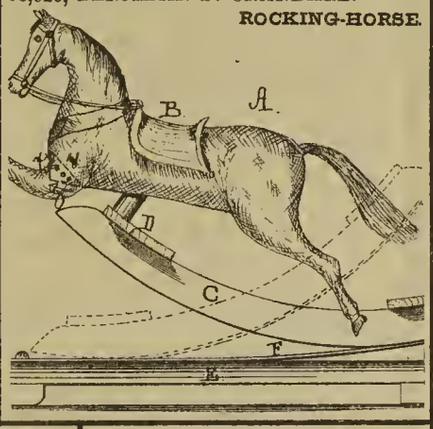
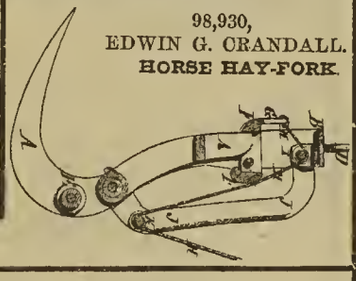
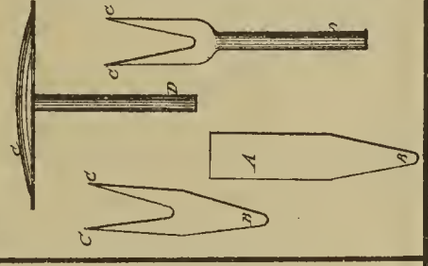
ROCKING-HORSE.



98,930,
EDWIN G. CRANDALL.
HORSE HAY-FORK.



98,931, JOHN DEEBLE.
METHOD OF FORMING T-BOLTS.



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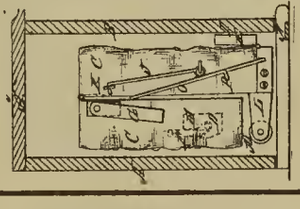
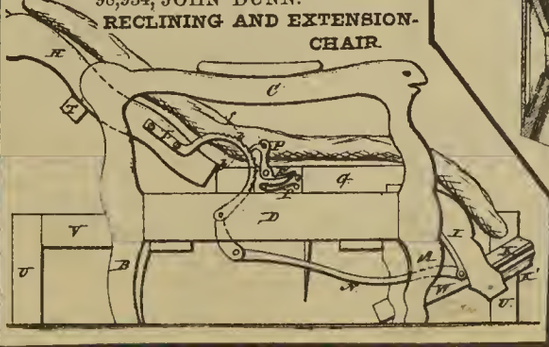
ENCLOSED FOLDING SPRING-BED.

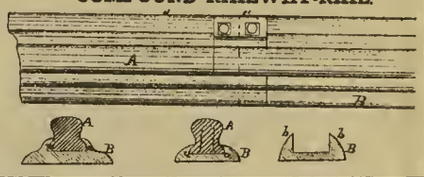


98,933, DAVID DRUMMOND.
SCREW-DRIVER.

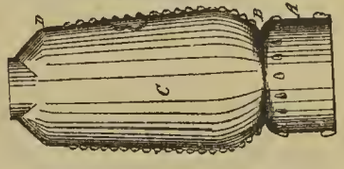
98,934, JOHN DUNN.
RECLINING AND EXTENSION-CHAIR.



98,935, WM. B. DUNNING.
COMPOUND RAILWAY-RAIL.



98,936, R. N. EAGLE.
LAMP-CHIMNEYS.



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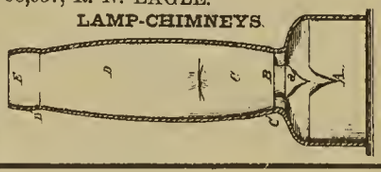
LAMP-CHIMNEYS.



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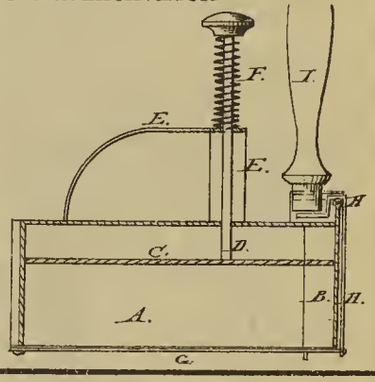
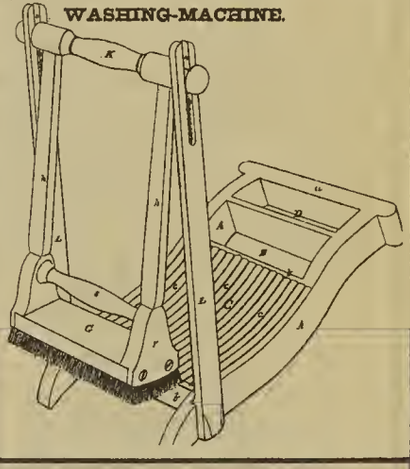
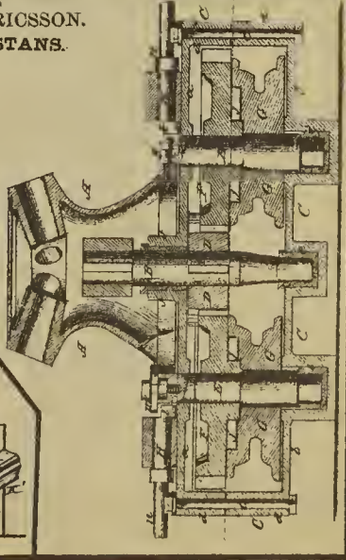
BUTTER-EXCAVATOR.



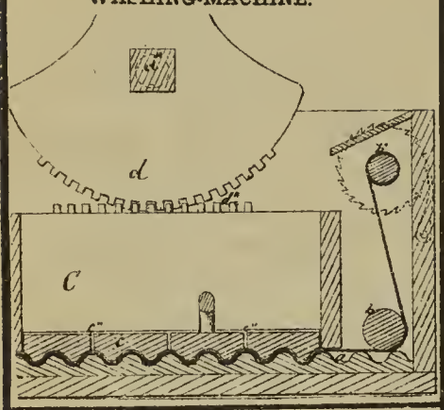
98,939, HOMER L. ENNES.
WASHING-MACHINE.



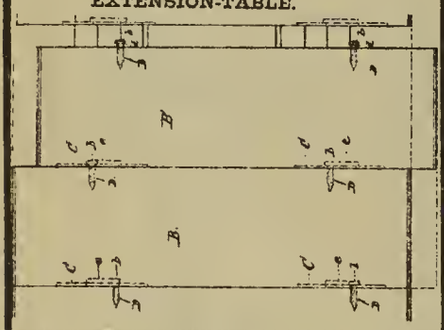
98,940,
J. ERICSSON.
CAPSTANS.



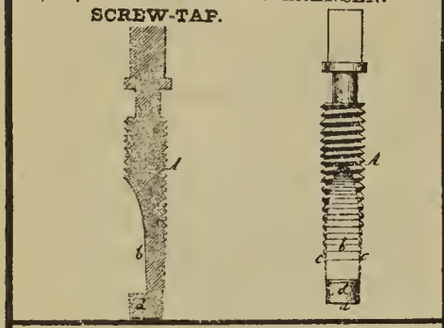
98,941. THOMAS R. EVANS.
WASHING-MACHINE.



98,942, WILLIAM FARSON.
EXTENSION-TABLE.



98,943, CHRISTIAN L. FEHRENSEN.
SCREW-TAP.



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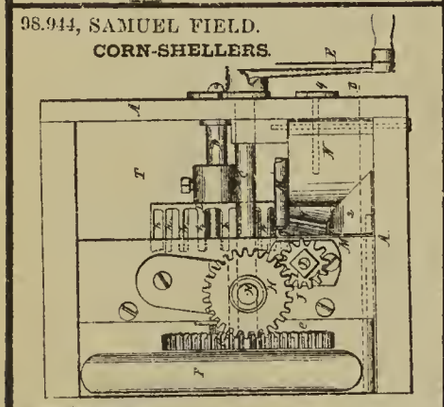
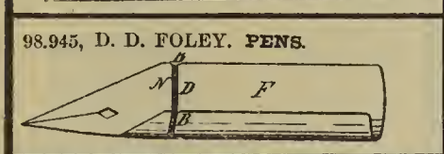
CORN-SHELLERS.



98,945, D. D. FOLEY. **PENS.**



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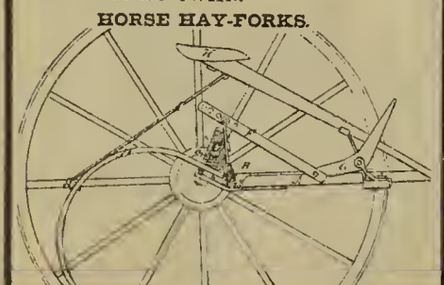
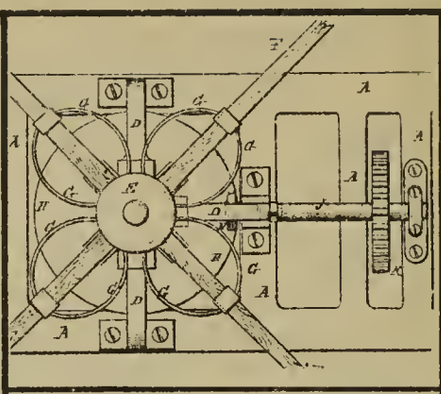


98,947, JAS. FRASER. **HORSE-POWER.**
WILLIAM THOMAS.



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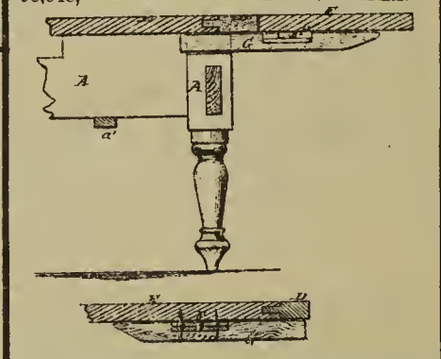
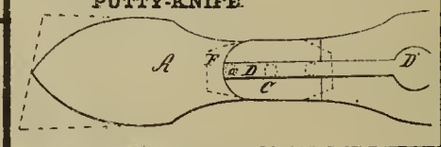


98,949, SELA W. GERELDS.
PUTTY-KNIFE.



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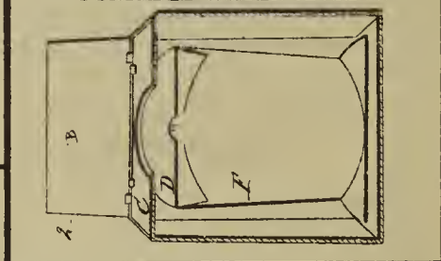
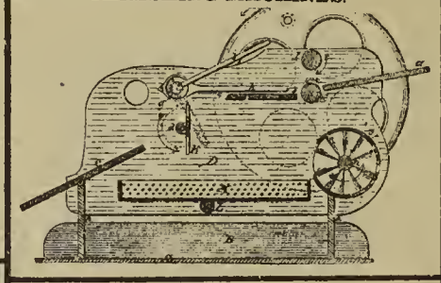
PORTABLE WATER-CLOSETS.



98,951, E. A. GOODES.
THRESHING-MACHINES.



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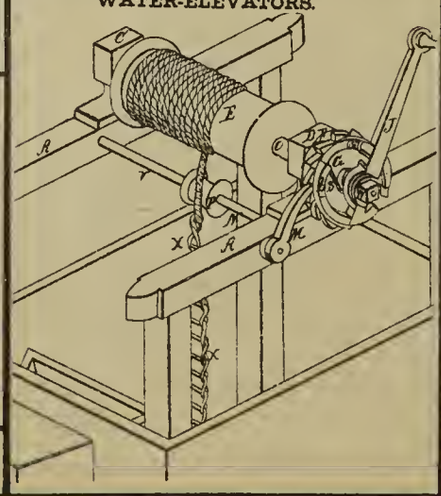
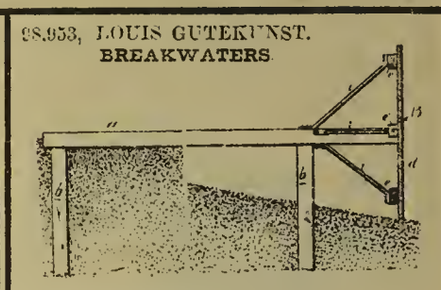
WATER-ELEVATORS.



98,953, LOUIS GUTEKUNST.
BREAKWATERS.



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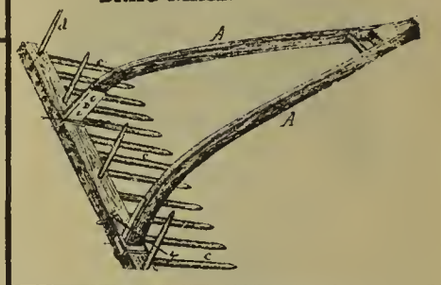
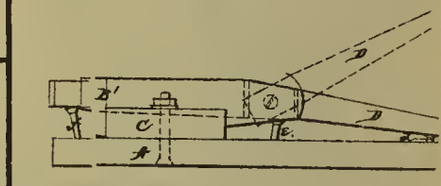
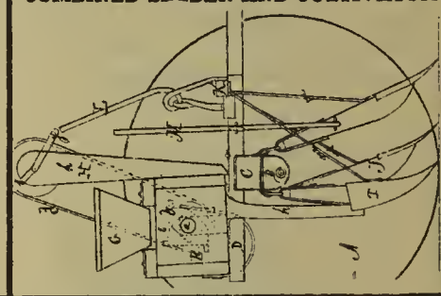
DRAG-RAKE.



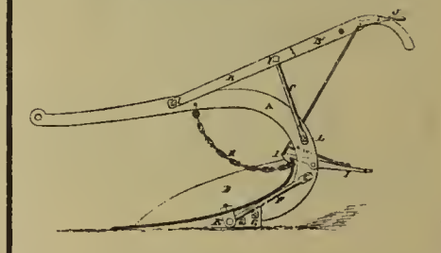
98,955. WILLIAM P. HALE.
MACHINE FOR FINISHING SPOKES.



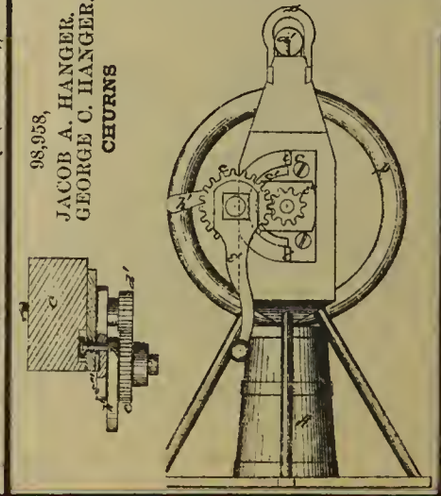
98,956, J. A. HALL.
COMBINED SEEDER AND CULTIVATOF.



98,957, ROBERT HAMILTON.
ROAD-SCRAPERS.

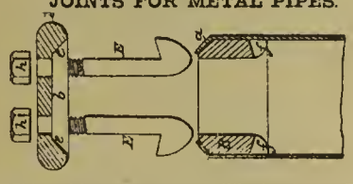


98,958,
JACOB A. HANGER.
GEORGE C. HANGER.
CHURNS

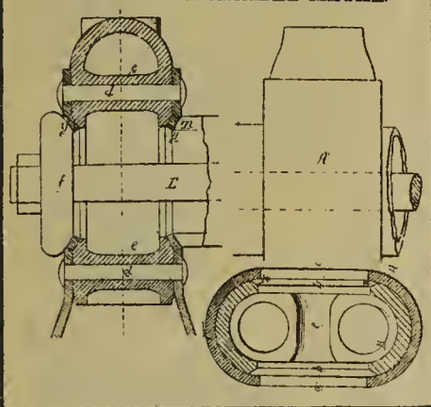


98,959, MRS. MARY J. HANSON.
MEDICAL COMPOUND.

98,960, W. H. HARRISON.
JOINTS FOR METAL PIPES.



98,961, W. H. HARRISON.
CONNECTIONS FOR PIPES OF MALLEABLE METAL.



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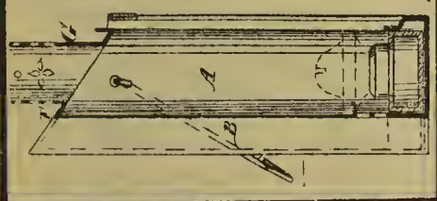
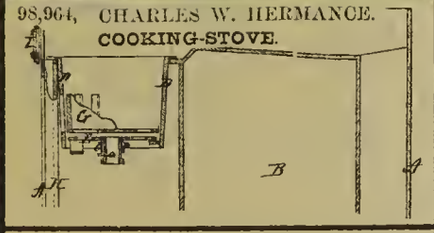
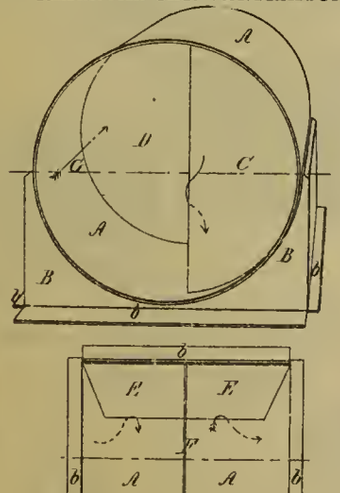


98,963, JOHN HENDERSON.
GLASS-FURNACES.

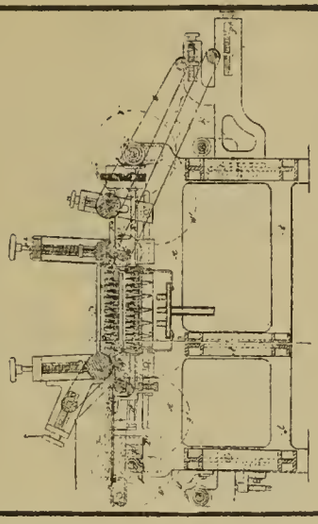
98,964, CHARLES W. HERMANCE.
COOKING-STOVE.



98,965, M. T. HITCHCOCK.
RAILROAD-CAR VENTILATOR.



98,966, EDWARD HOLDEN.
APPARATUS FOR COMBING AND PREPARING WOOL.



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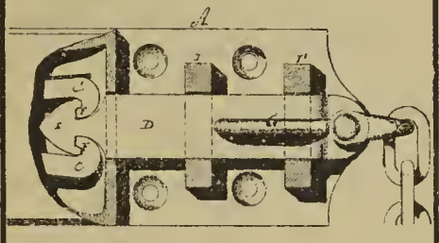
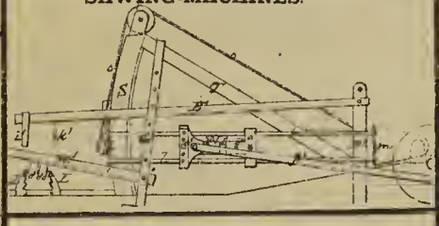
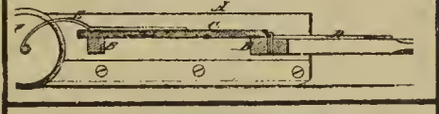
CAR-DOOR LOCKS.



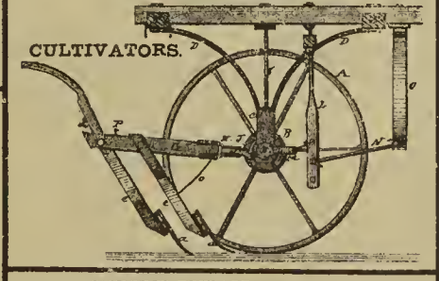
98,968, S. CHARLES HOWE.
SAWING-MACHINES.



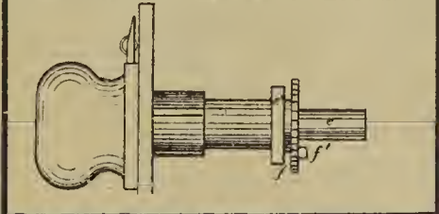
98,969, JAMES HOWLAND.
ROAD-SCRAPER.



98,970, BENJAMIN S. HYERS.
CULTIVATORS.



98,971, HENRY ISHAM.
KNOBS FOR PERMUTATION-LOCKS.



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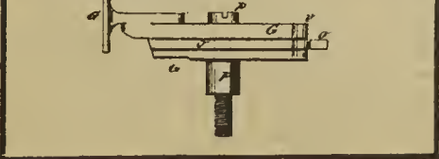
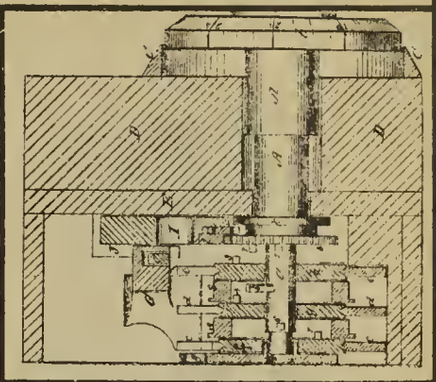
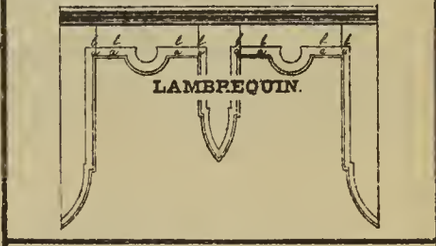
PERMUTATION-LOCKS.



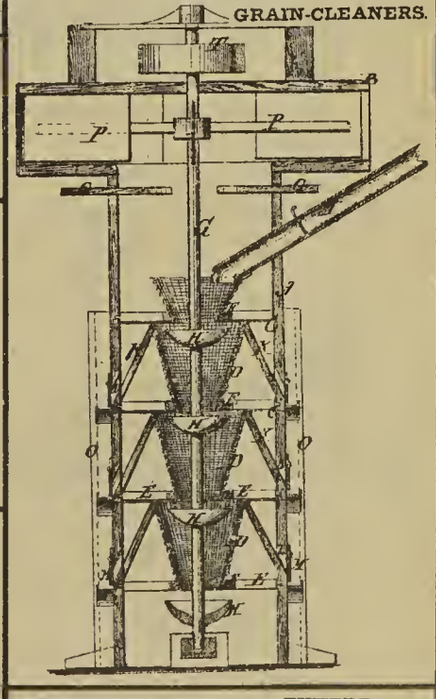


98,973, WM. H. JOECKEL. **CHAIR.**

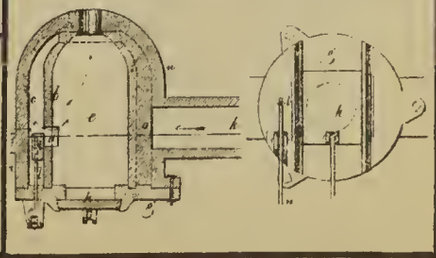
98,974, HENRY M. JOHNSTON.
LAMBREQUIN.



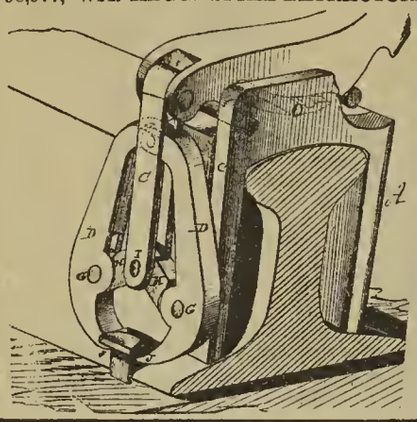
98,975, CHARLES JONES.
GRAIN-CLEANERS.



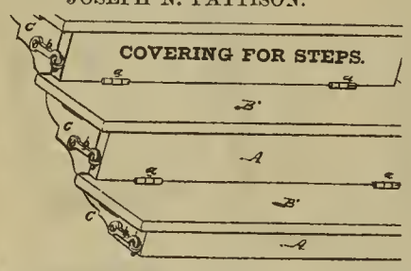
98,976, JAMES O. JONES. **TUYERE.**



98,977, WM. KEGG. SPIKE-EXTRACTOR.

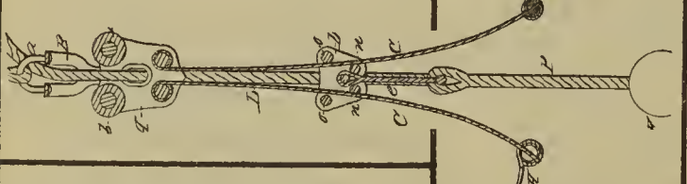


98,978, CHARLES E. KEMP.
JOSEPH N. PATTISON.
COVERING FOR STEPS.



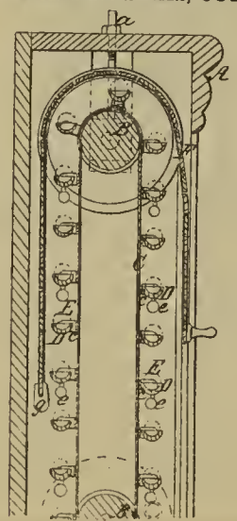
98,979, JOHN J. KIMBALL.
FLOOD-GATE.

98,980, GEO. S. KNAPP.
CHIMNEY-CLEANER.



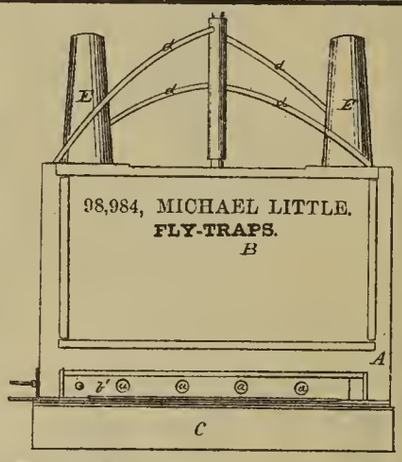
98,981, G. S. KNAPP.
RAILROAD-CAR WINDOW.

98,982, GEO. D. LEONARD.
SHOW-CASE FOR SILKS, COTTONS.

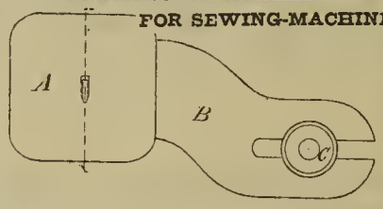


98,983, N. H. LINDLEY.
HORSE-HOE.

98,984, MICHAEL LITTLE.
FLY-TRAPS.

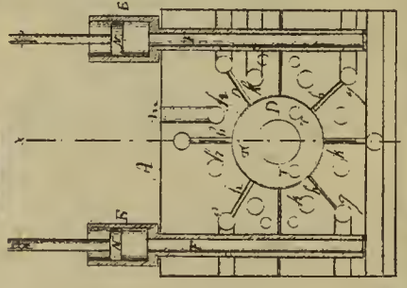


98,985, JAMES M. LYON.
BRAIDING-ATTACHMENT
FOR SEWING-MACHINES.

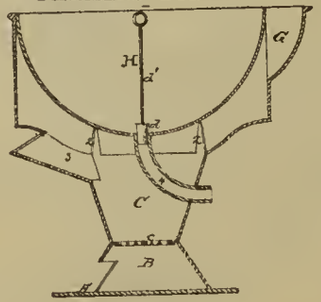


98,986, J. J. MARCY.
OIL-CAN VENT-SPOUTS.

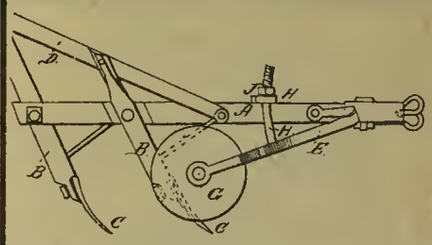
98,987, JEREMIAH McILVAIN.
JOURNAL-BOXES.



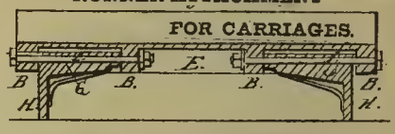
98,988 ALLEN N. MERRILL.
FARMERS' BOILER.



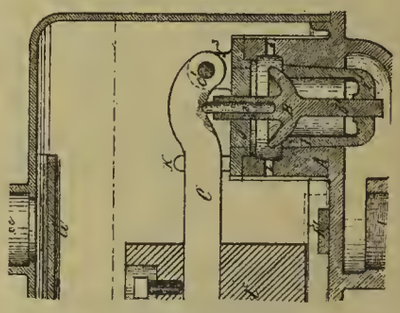
98,989, DAN. O. MOORE.
FRANK REID.
CLOD-FENDERS.



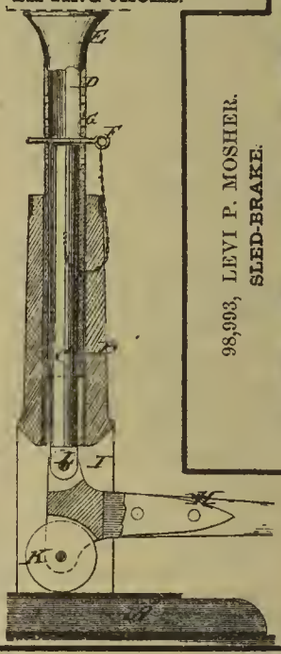
98,990, J. W. MOORE.
RUNNER-ATTACHMENT
FOR CARRIAGES.



98,991, WILLIAM MOSES.
LOCK-UP SAFETY-VALVE.



98,992, C. W. MOSHER.
LIFTING-JACKS.



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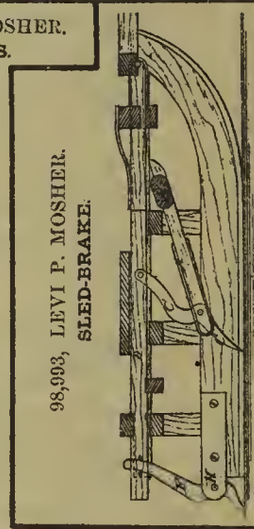
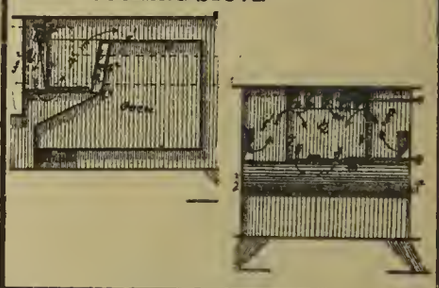
SLED-BRAKE.



98,994, MARTIN J. MOSHER.
COOKING-STOVE



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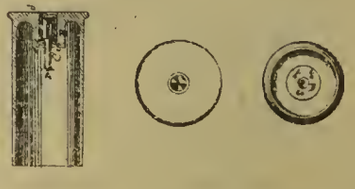
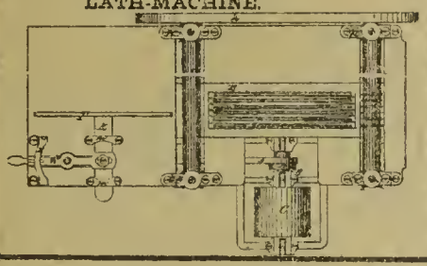
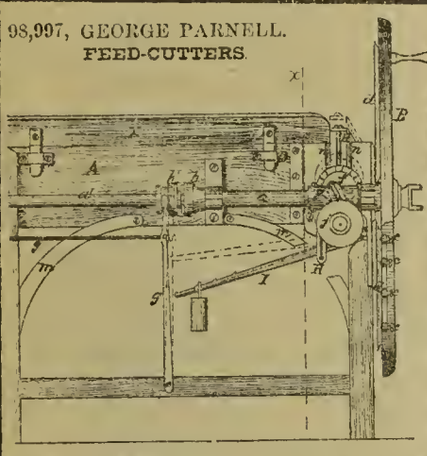
METALLIC CARTRIDGES.



98,996, WALTER B. NOYES.
LATH-MACHINE.

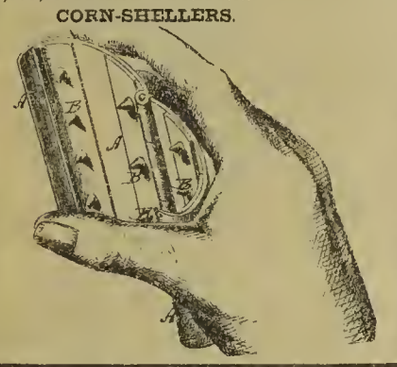


98,997, GEORGE PARNELL.
FEED-CUTTERS.

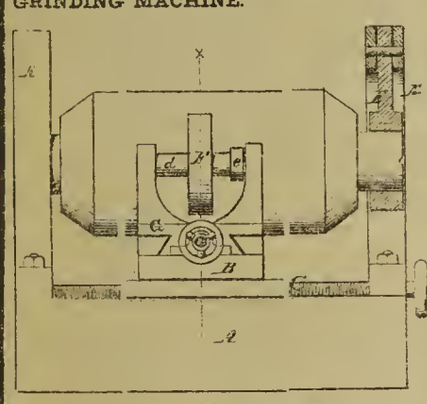


98,998, JAMES I. PECK.
TONGUE AND THILL-COUPLING.

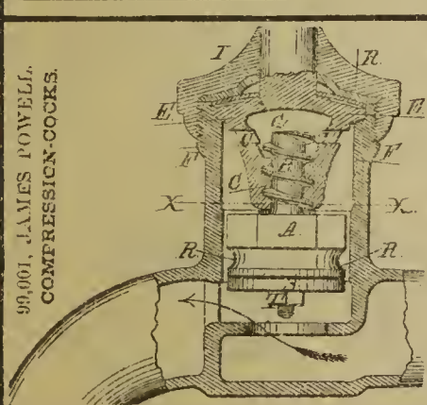
98,999, RUPERT PFEIFER.
CORN-SHELLERS.



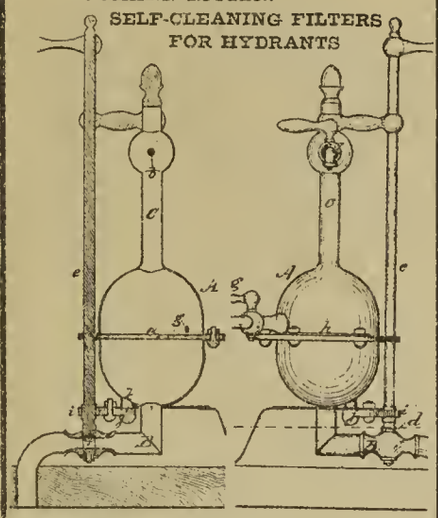
99,000. J. M. POOLE.
GRINDING MACHINE.



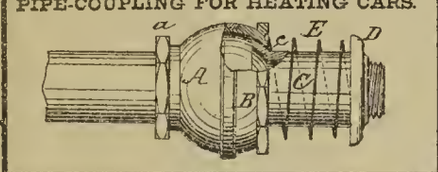
99,001, JAMES POWELL.
COMPRESSION-COCKS.



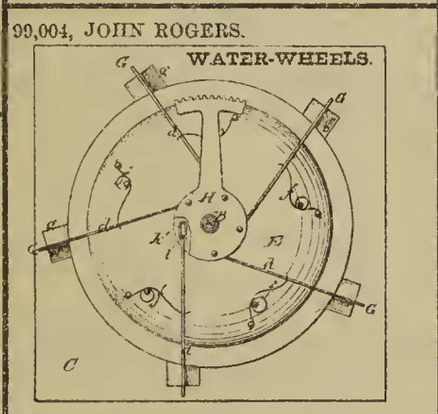
99,002, JOHN RAIBLE.
MATTHIAS REIS.
JOHANN RITTER.
SELF-CLEANING FILTERS FOR HYDRANTS



99,003, HENRY R. ROBBINS.
PIPE-COUPLING FOR HEATING CARS.



99,004, JOHN ROGERS.
WATER-WHEELS.



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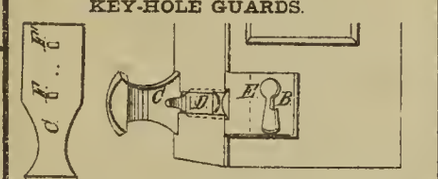
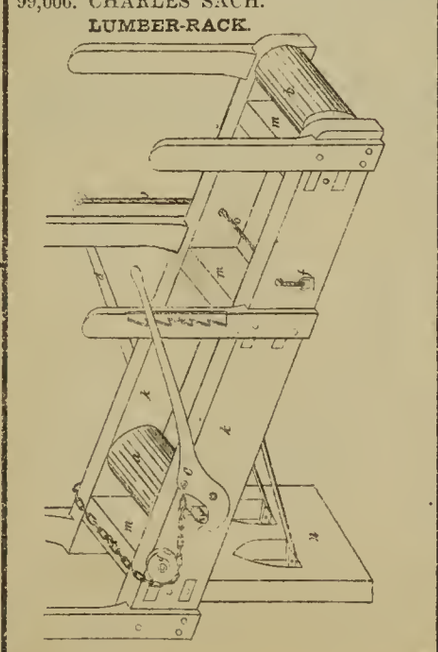
KEY-HOLE GUARDS.

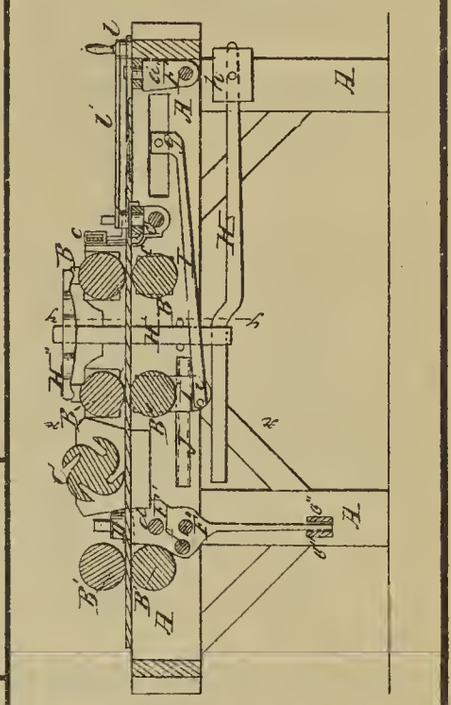


99,006. CHARLES SACH.
LUMBER-RACK.

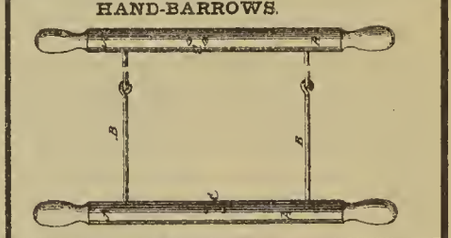


99,007, ELLIOT SAVAGE.
ALLOYS OF MANGANESE.

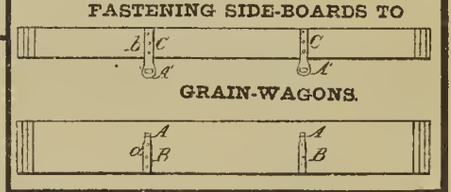
99,008, JOHN B. SCHENCK.
PLANING-MACHINES.



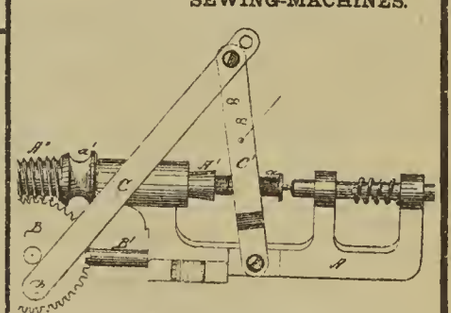
99,009, MINOT S. SCOFIELD.
HAND-BARROWS.



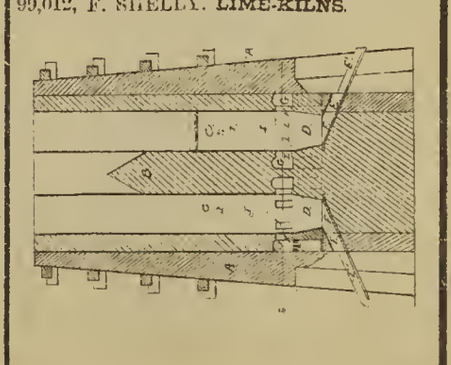
99,010, GEO. SEITZINGER.
FASTENING SIDE-BOARDS TO
GRAIN-WAGONS.



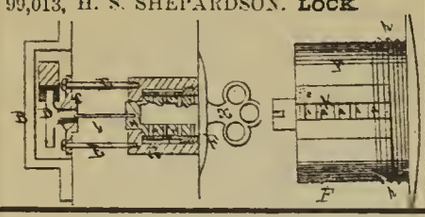
99,011. THOMAS SHANKS.
BOBBIN-WINDERS FOR SEWING-MACHINES.



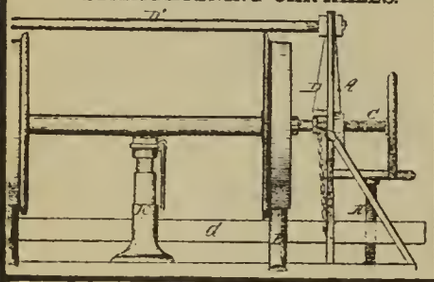
99,012, F. SHELLY. LIME-KILNS.



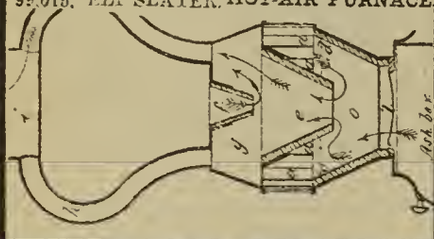
99,013, H. S. SHEPARDSON. LOCK.



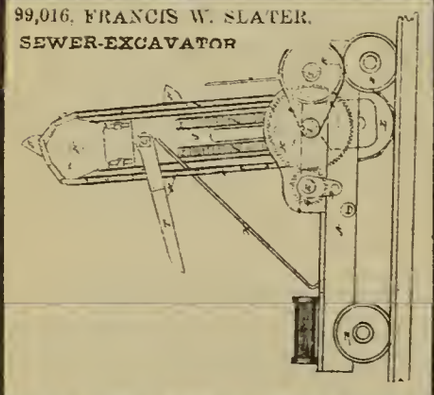
99,014, B. S. SKATES. APPARATUS FOR STRAIGHTENING CAR-AXLES.



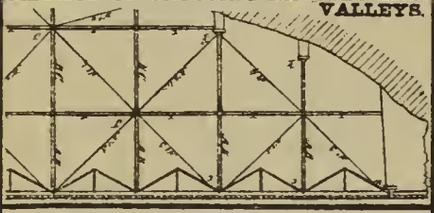
99,015, ELI SLATER. HOT-AIR FURNACE.



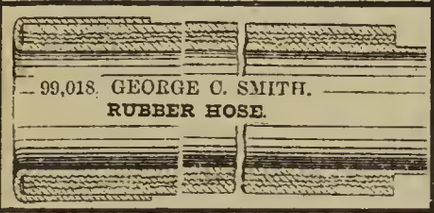
99,016, FRANCIS W. SLATER. SEWER-EXCAVATOR.



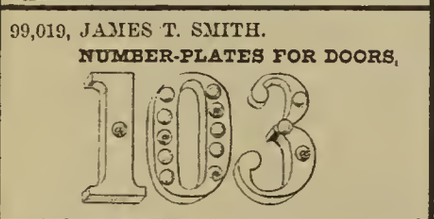
99,017, SMITH, LATROBE AND SMITH. METHOD OF CROSSING RAVINES AND VALLEYS.



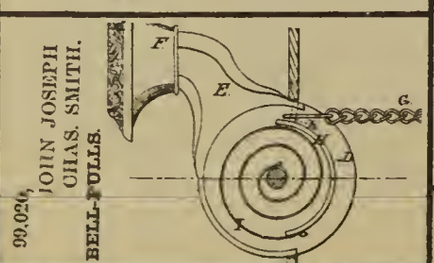
99,018, GEORGE C. SMITH. RUBBER HOSE.



99,019, JAMES T. SMITH. NUMBER-PLATES FOR DOORS.

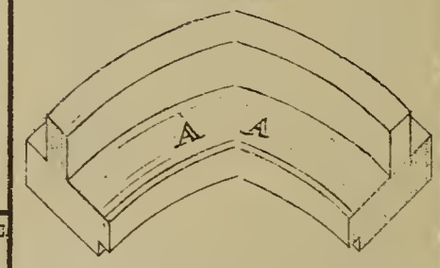


99,020, JOHN JOSEPH CHAS. SMITH. BELL-PULLS.

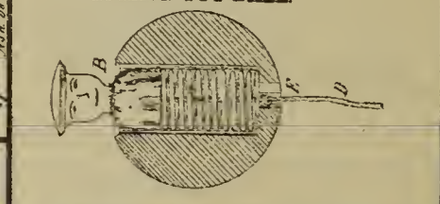


99,021, T. RICE SMITH. JAMES MITCHELL. CLOTHES-SPRINKLER.

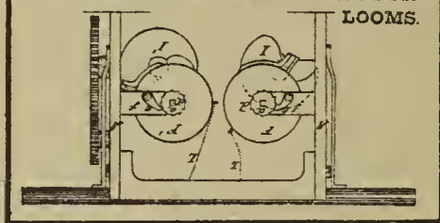
99,022, JOHN SPERRY. PICTURE-FRAMES.



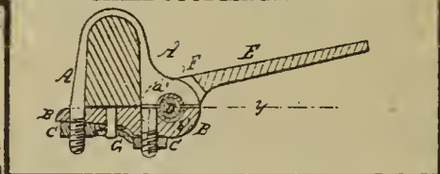
99,023, HENRY SPLITDORF. SPRING TOY-BALL.



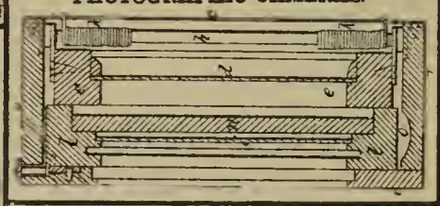
99,024, JEREMIAH STEVER. SHUTTLE-DRIVING MECHANISM FOR LOOMS.



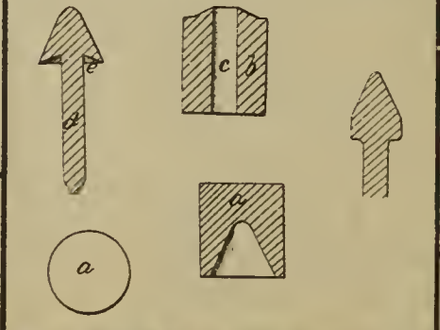
99,025, CLEMENT ST. JAMES. THILL-COUPLINGS.



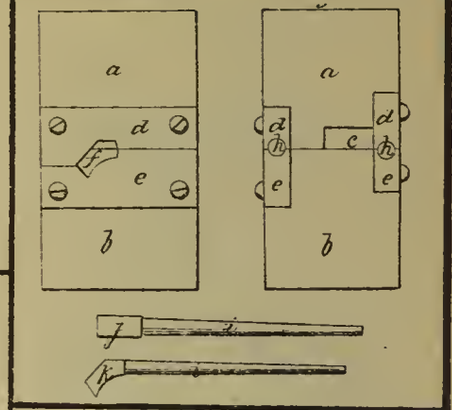
99,026, I. H. STODDARD. PHOTOGRAPHIC CAMERAS.



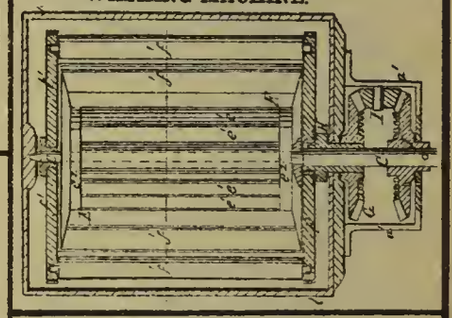
99,027, ALSON A. STONE. DIE FOR FORMING SHUTTLE-TIPS.



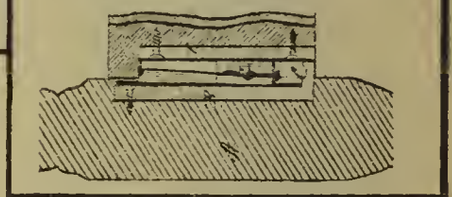
99,028, ALSON A. STONE. DIE FOR FORMING SHUTTLE-SPINDLE HEADS.



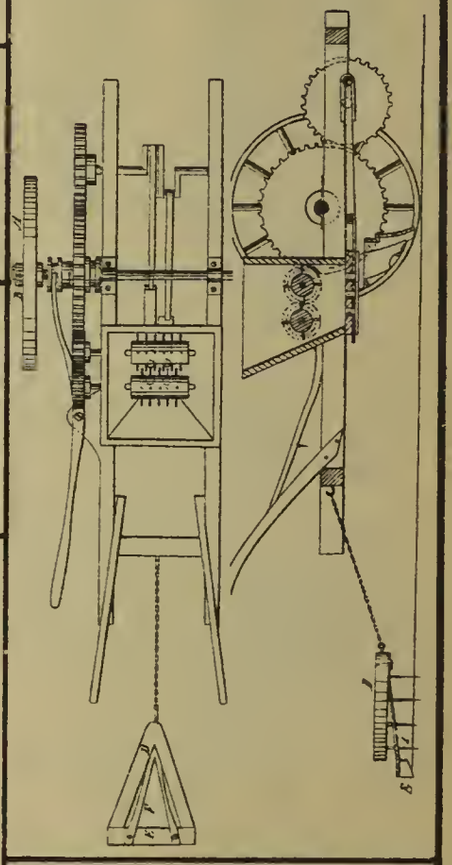
99,029, GEO. W. STRANAHAN. WASHING-MACHINE.



99,030, HENRY SWINEFORD. BEDSTEAD-FASTENER.



99,031, E. L. SYKES. COTTON-PLANTER.



99,032, CHAS. M. THEBERATH. MODE OF COVERING HARNESS-TRIMMINGS.

99,033, F. W. THORLA.
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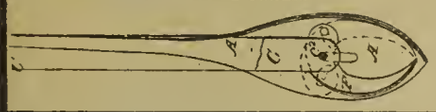

99,034, ELWOOD TUSH.
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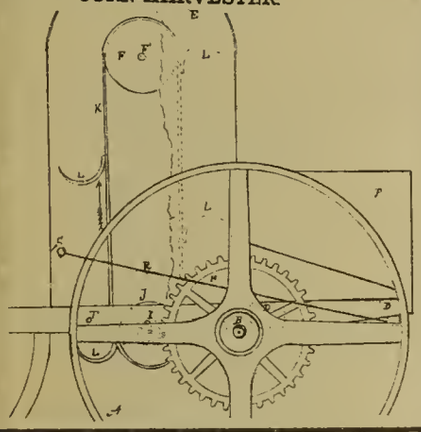

99,035, EDWIN TUTTE.
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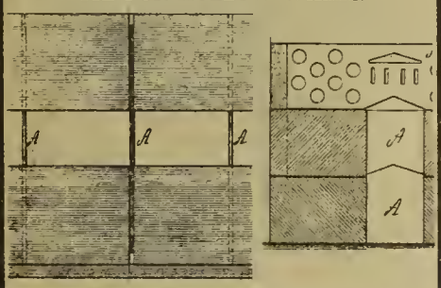

99,036, CORNELIUS WALSH.
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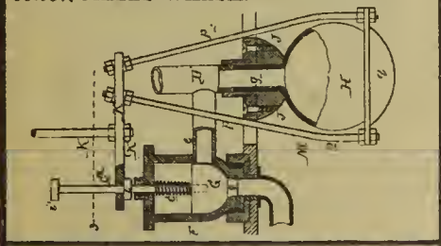
99,037, JAMES WALSH. **HYDRANTS.**



99,038, P. R. WALSH. **PRUNING-SHEARS.**
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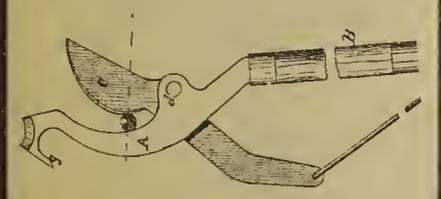

99,039, WILLIAM WEISNER.
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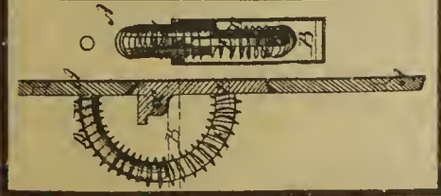

99,040, A. H. WELLINGTON.
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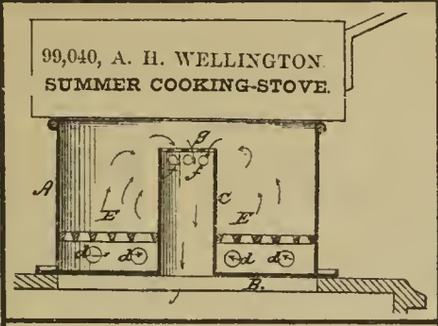

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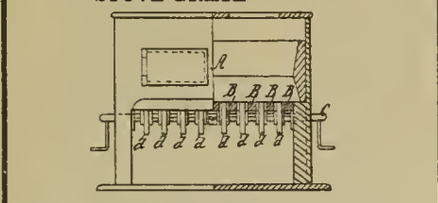

99,042, STEPHEN S. WILCOX.
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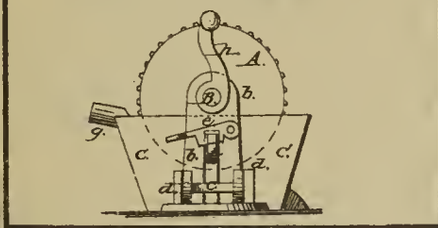
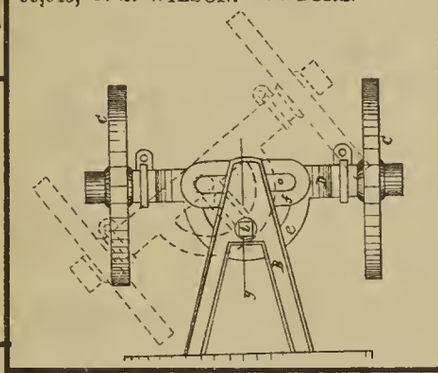


99,043, J. S. WILSON. **WAGONS.**



99,044, DANIEL LONG.
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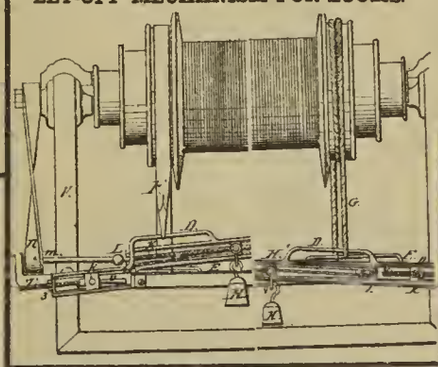

99,045, JOSEPH BANIGAN.
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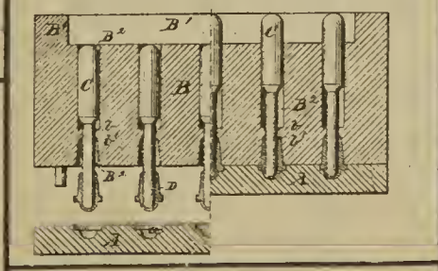

3,797, WM. H. GUILD.
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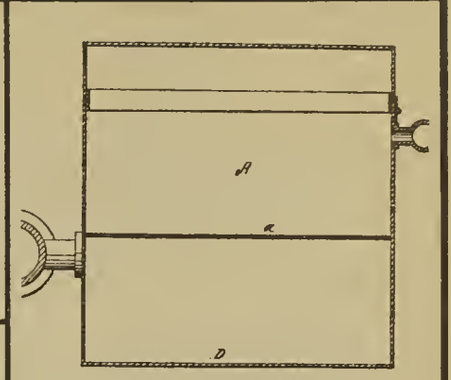

3,798, WM. CLEVELAND HICKS.
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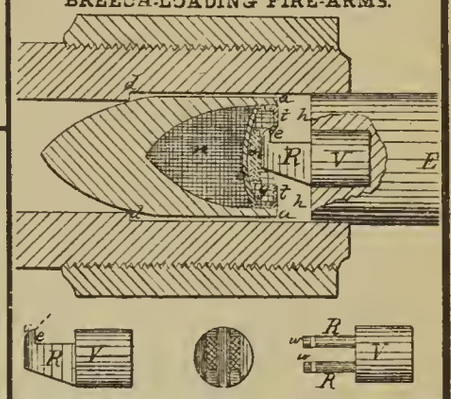

3,799, JOHN N. LYMAN.
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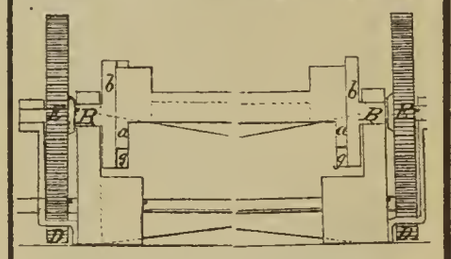

3,800, ELIE MONEUSE.
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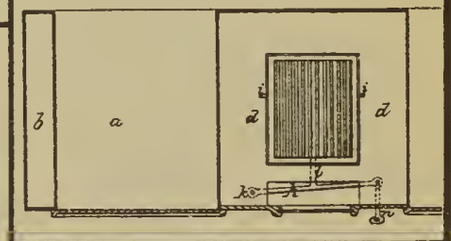

3,801, ROBT. SCORER.
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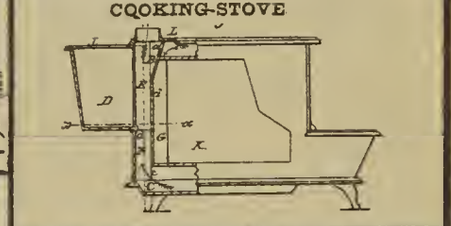

3,802, WM. M. STEVENSON.
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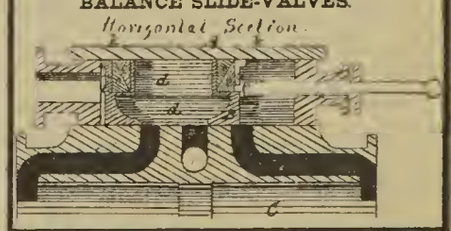

3,803, F. H. NORTH,
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99,046, H. C. ALEXANDER **CAN-OPENERS**

99,047, MILTON F. ADAMS.
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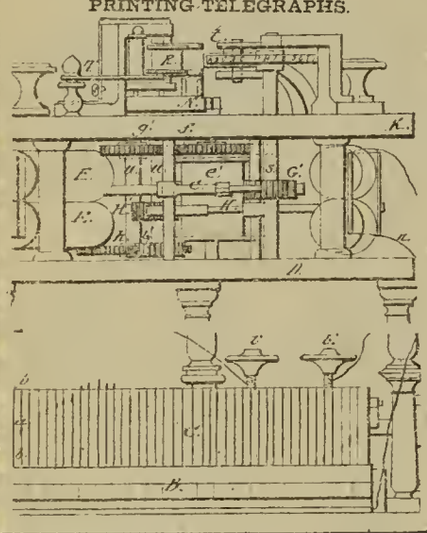

99,048, HENRY BAKER.
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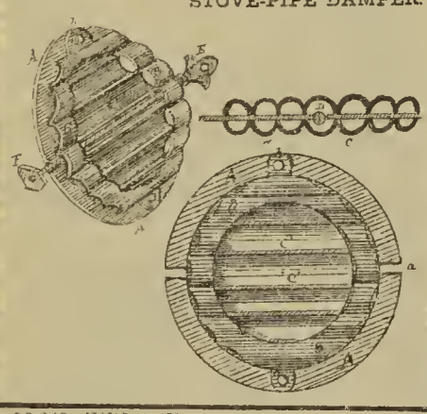

99,049, CYRUS W. BALDWIN.
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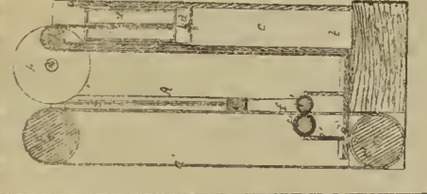

99,050, MARCUS L. BATTLE.
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99,051, ARTHUR TAPPAN BECKER.
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99,052, GEO. M. BIRD.
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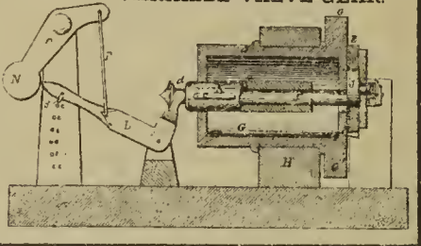

99,053, ANDREW C. BLACK.
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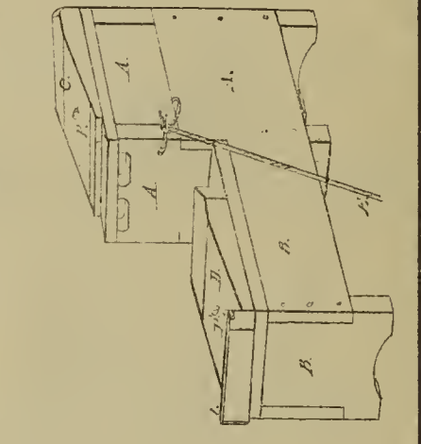
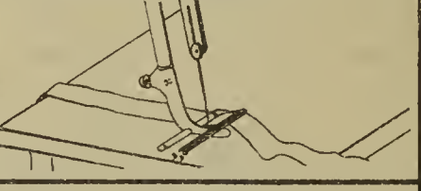


99,054. E. BOUSCAY, JR. **DEVICE FOR APPLYING BRAID TO FABRICS IN SEWING MACHINES.**



99,055, W. C. BRAMWELL
PAUL BRAMWELL
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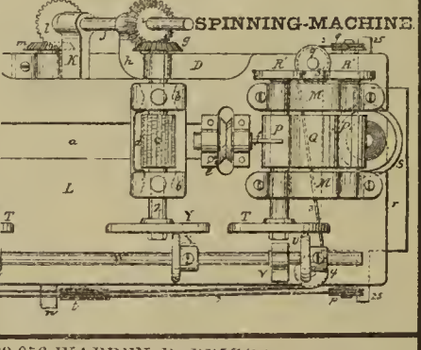

99,056 WARREN R. BRIGGS.
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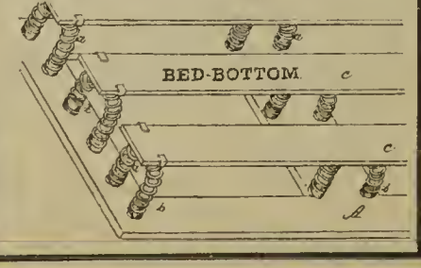

99,057, PETER BROADBROOKS.
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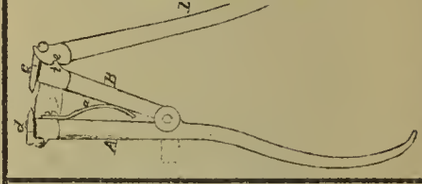

99,058, ARCHIBALD H. CEILEY.
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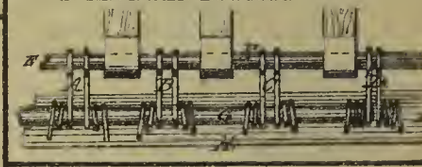

99,059, LUKE CHAPMAN.
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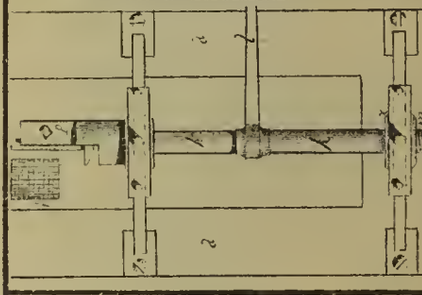

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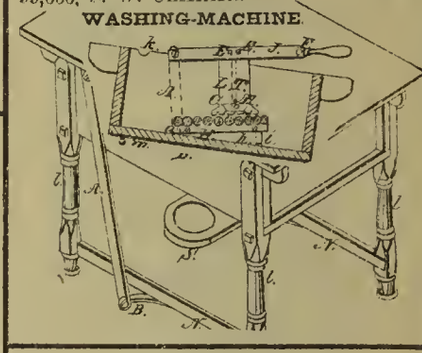

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99,063, AARON COLTON.
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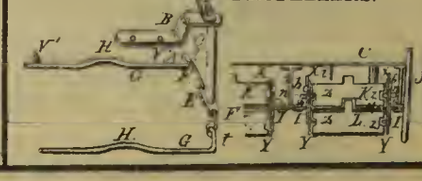

99,064, JOHN COX
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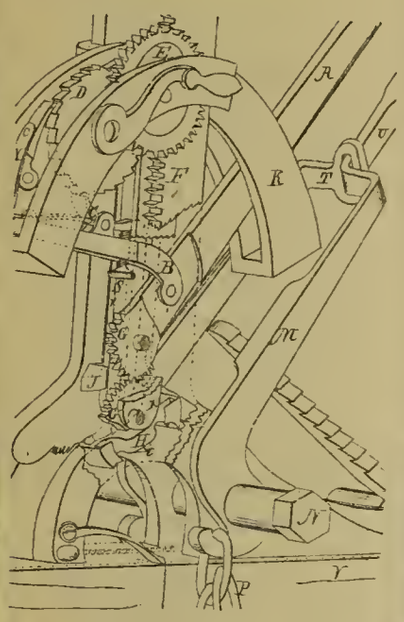

99,065, WILLIAMS CULVER.
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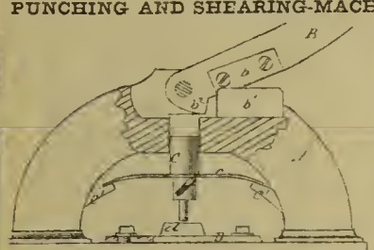
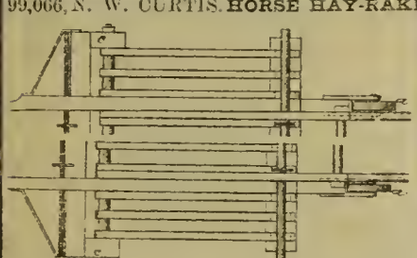


99,066, N. W. CURTIS. HORSE HAY-RAKE.



99,067, JOB A. DAVIS.
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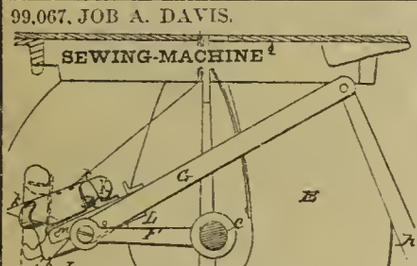

99,068, MARINUS DE GRAFF.
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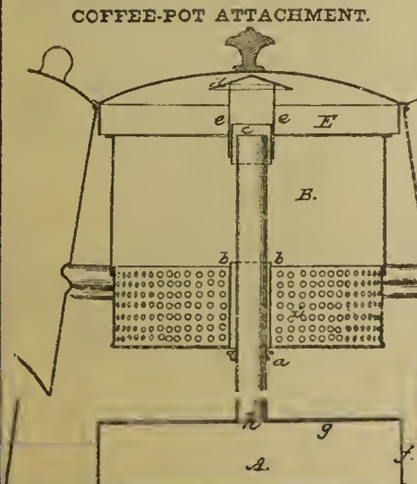

99,069. C. DITTMAN. EXPLOSIVE AGENT CALLED XYLOGLODINE

99,070, CARL DITTMAR.
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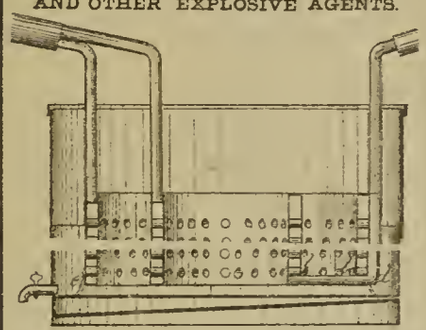

99,071, HEZEKIAH DODGE.
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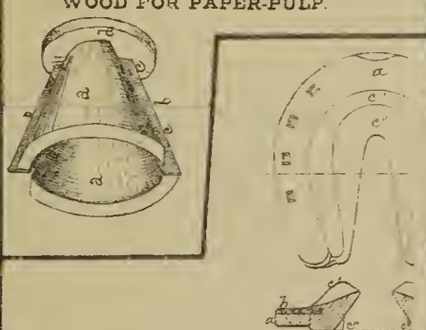

99,072, HAY DOWNIE.
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99,073. DAVID A. DREW.
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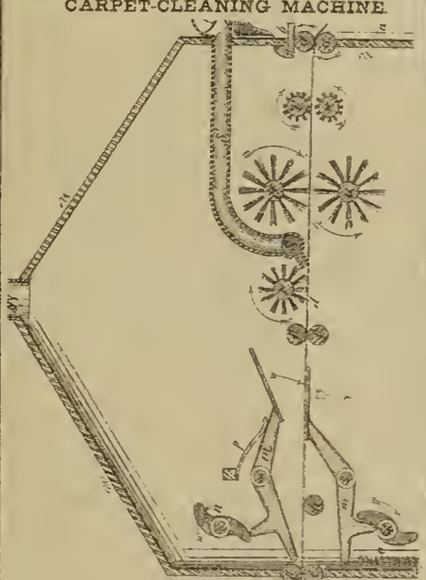
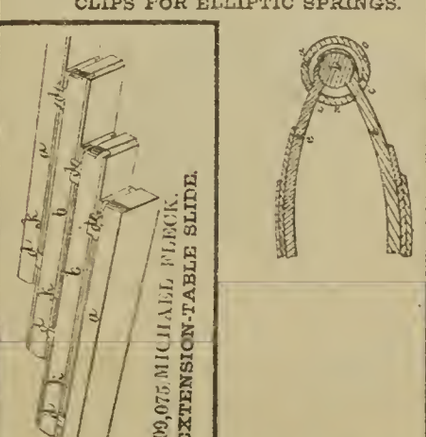
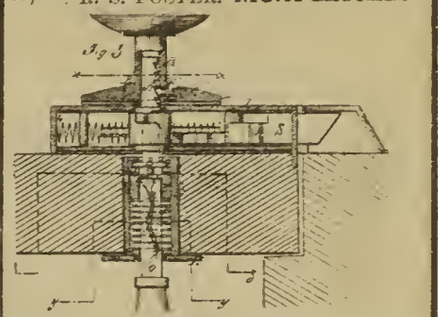


99,074, WILLIAM EVANS.
CLIPS FOR ELLIPTIC SPRINGS.

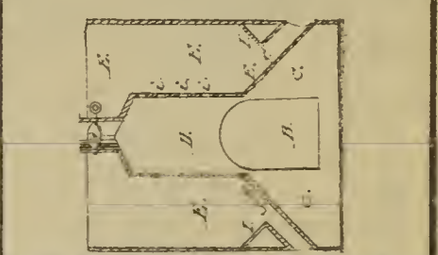


99,075 MICHAEL FLECK.
EXTENSION-TABLE SLIDE.

99,076. R. S. FOSTER. NIGHT-LATCHES.

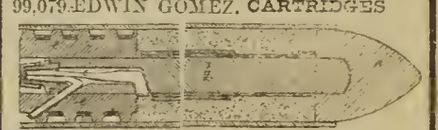


99,077. W. A. GAY. GRAVEL HEATER.

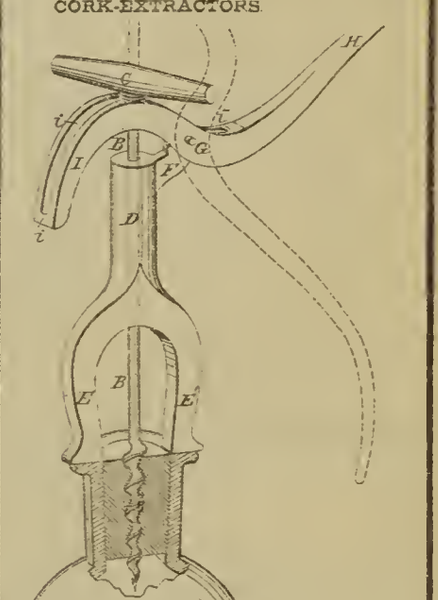


99,078. EDWIN GOMEZ. CARTRIDGES.

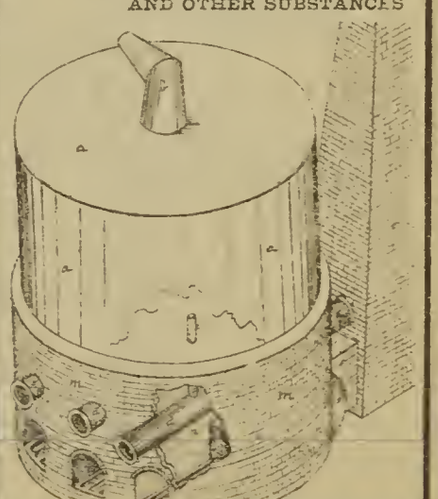
99,079. EDWIN GOMEZ. CARTRIDGES



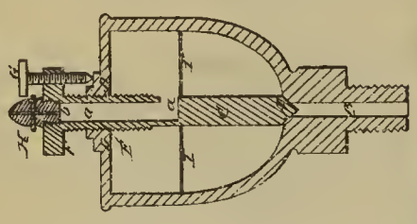
99,080. CHARLES GOOCH.
CORK-EXTRACTORS.



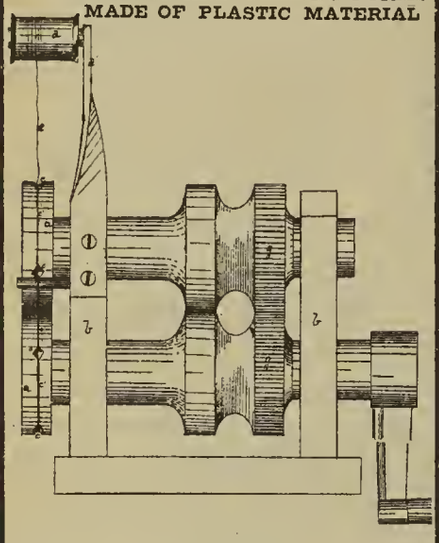
99,081. JOHN GRACIE
STILLS FOR HYDROCARBONS AND OTHER SUBSTANCES



99,082, HENRY HAMMOND.
PORTABLE LUBRICATORS.

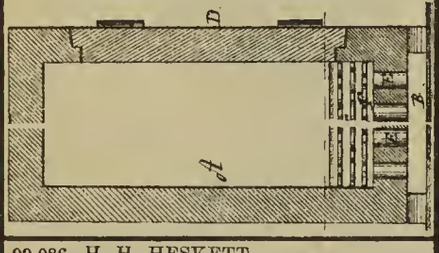


99,083. SAM. HART.
MOULDING AND GLAZING FORMS MADE OF PLASTIC MATERIAL

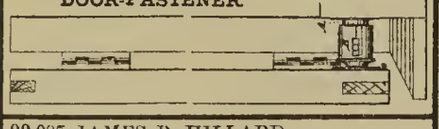


99,084, JOHN HARWOOD.
BOOT-STRETCHER.

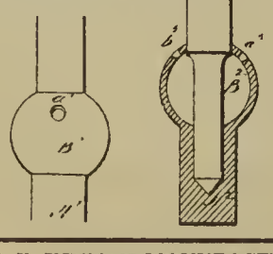
99,085, E. M. HENDRICKSON.
BURGLAR-PROOF SAFES.



99,086, H. H. HESKETT.
MARCUS E. FERGUSON.
COMBINED BASE-KNOB AND DOOR-FASTENER.

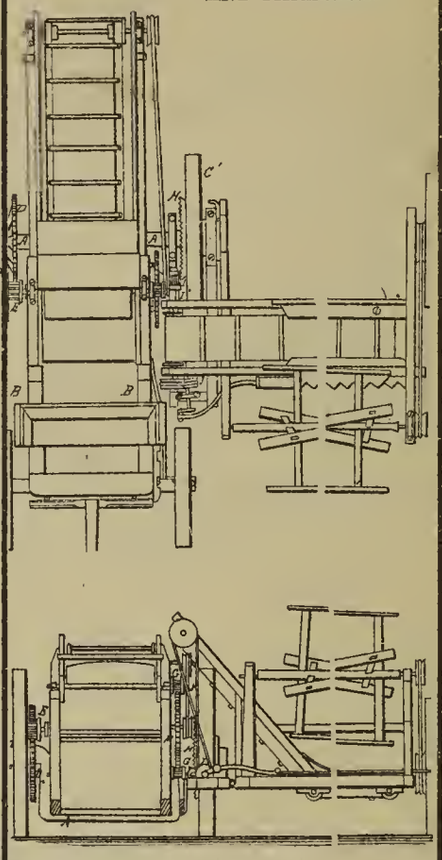


99,087, JAMES P. HILLARD.
STEPS FOR SPINDLES TO SPINNING-MACHINES.

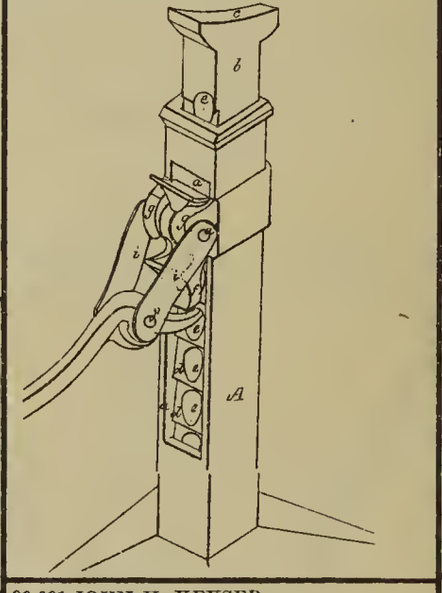


99,088, C. F. HINMAN. **MANUFACTURE OF COMPOSITION-ROOFS.**

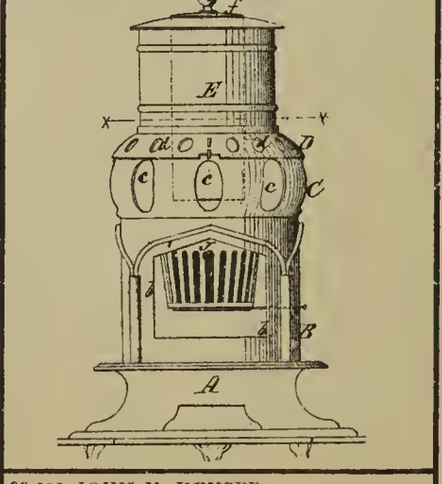
99,089, DAVID HOWELL.
COMBINED HARVESTER AND THRESHER.



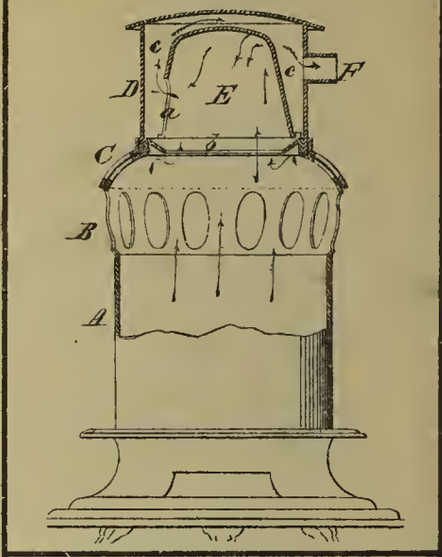
99,090, THOMAS W. JOHNSTON.
CARRIAGE-JACKS.



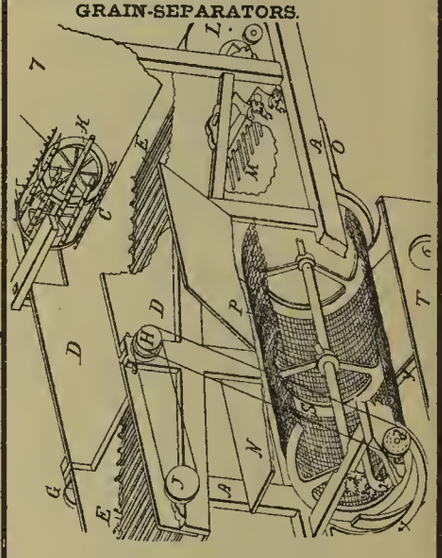
99,091, JOHN H. KEYSER.
BASE-BURNING STOVE.



99,092. JOHN H. KEYSER
COAL-STOVE.

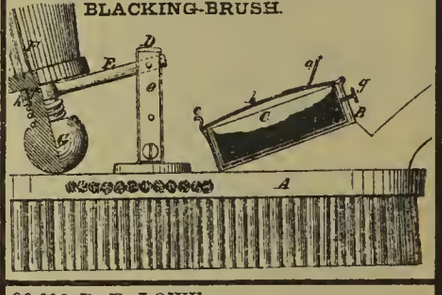


99,093. DENNIS LADD.
GRAIN-SEPARATORS.

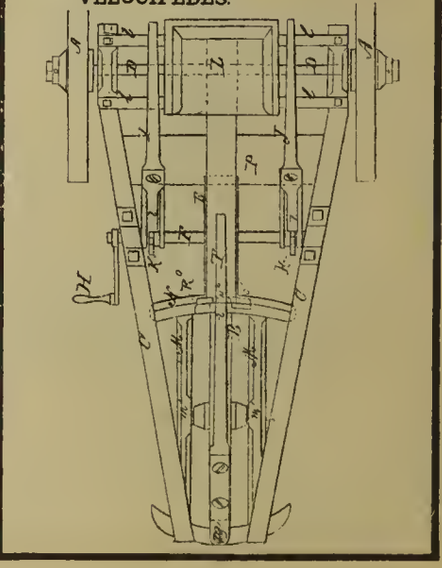


99,094. HENRY LASSING.
PREPARING SEED FOR PLANTING.

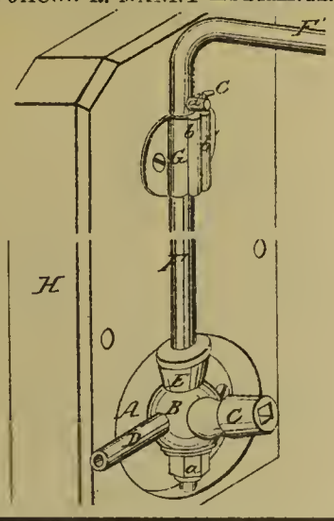
99,095, GEO. W. LISHAWA.
BLACKING-BRUSH.



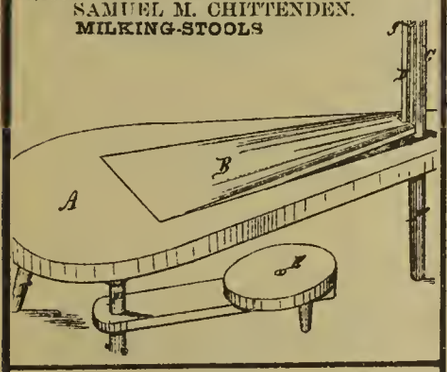
99,096, R. E. LOWE.
VELOCIPEDES.



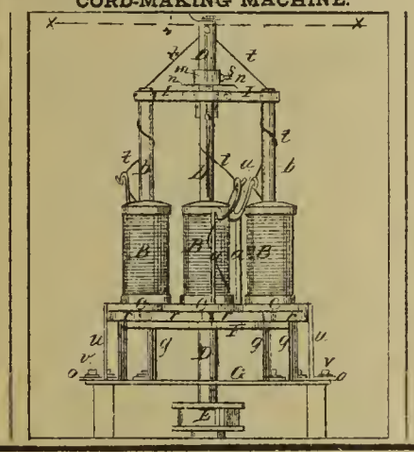
99,097 JACOB R. MANNY **HYDRANTS.**



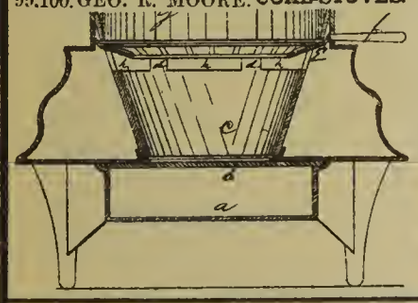
99,098 EPHRAIM MARTIN.
SAMUEL M. CHITTENDEN.
MILKING-STOOLS



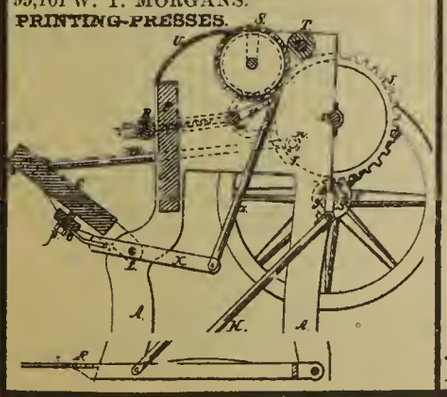
99,099, JAMES McINTIRE.
CORD-MAKING MACHINE.



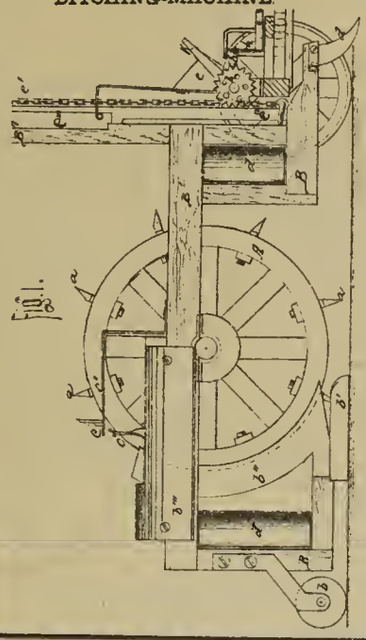
99,100. GEO. R. MOORE. **COAL-STOVES.**



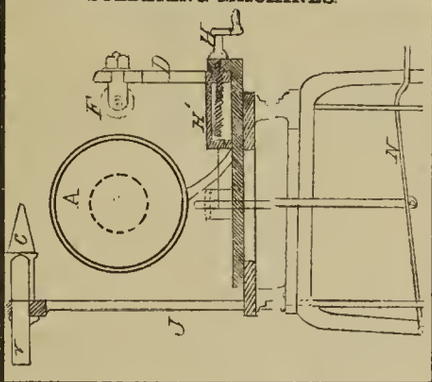
99,101 W. T. MORGANS.
PRINTING-PRESSES.



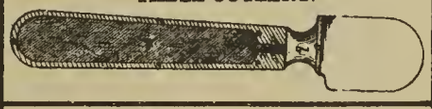
99,102, G. W. NEVILL.
DITCHING-MACHINE.



99,103, DANIEL P. NEWELL.
SOLDERING-MACHINES.

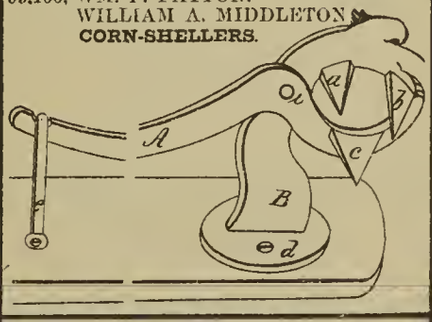


99,104. JOSIAH H. NICHOLS.
WM. BOWER.
TABLE-CUTLERY.

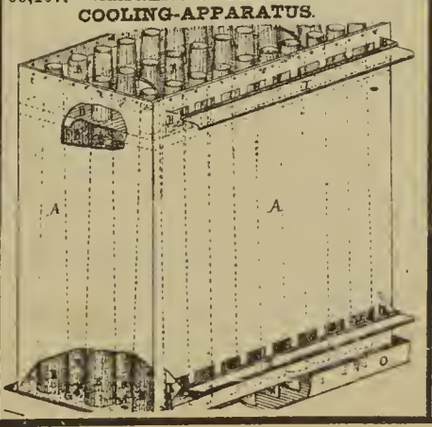


99,105, ALFRED PARAF.
METHOD OF FIXING PIGMENTS TO FIBROUS AND TEXTILE MATERIALS.

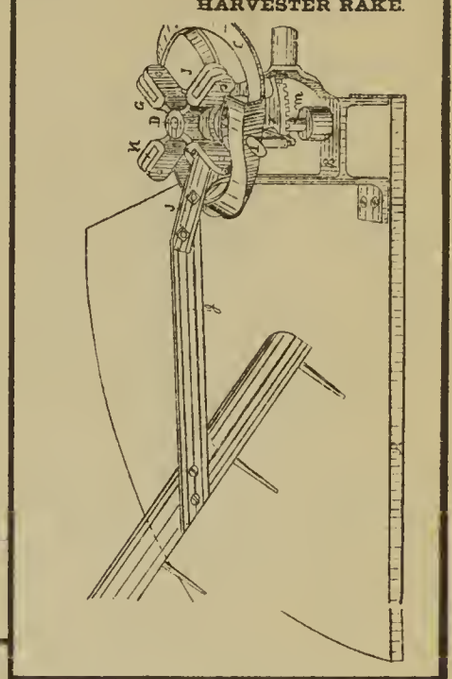
99,106, WM. P. PATTON.
WILLIAM A. MIDDLETON.
CORN-SHELLERS.



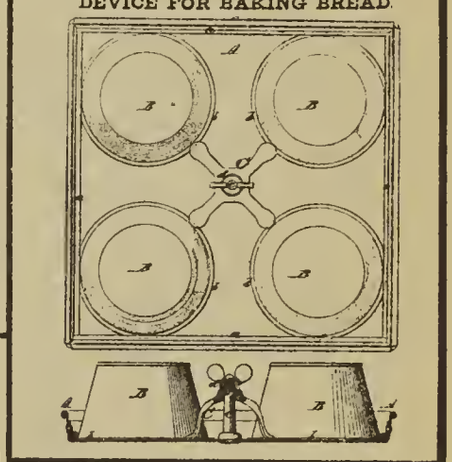
99,107. CHARLES F. PIKE.
COOLING-APPARATUS.



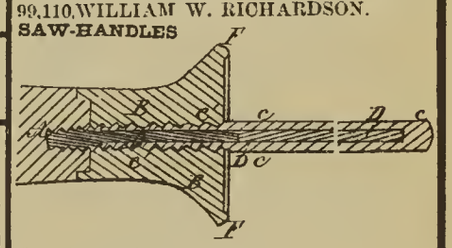
99,108. W. PIMLOTT.
HARVESTER RAKE.



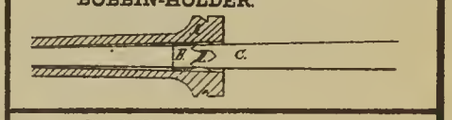
99,109, ABRAM J. QUACKENBUSH.
GUILFORD HAWN.
DEVICE FOR BAKING BREAD.



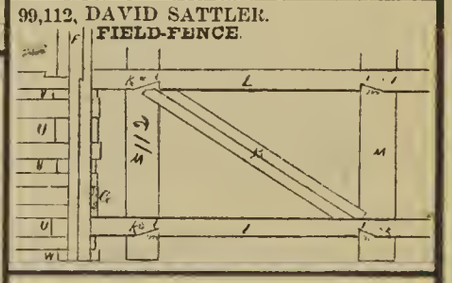
99,110, WILLIAM W. RICHARDSON.
SAW-HANDLES



99,111, JOHN SALISBURY.
BOBBIN-HOLDER.

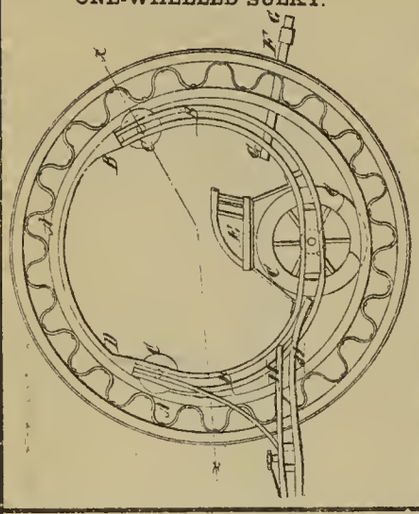


99,112, DAVID SATTLER.
FIELD-FENCE.

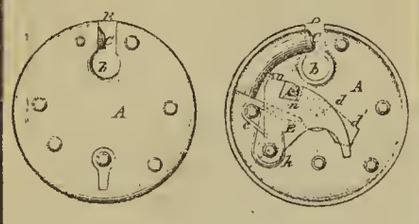


99,113, WILLIAM SEATON.
SLOTTING-TOOL HOLDER

99,114. JAS. A. SINCLAIR.
ONE-WHEELED SULKY.



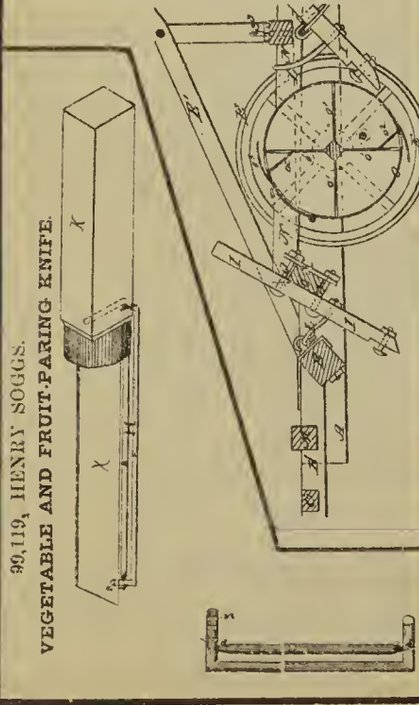
99,115. F. W. SMITH, JR. **PADLOCKS.**



99,116, F. W. SMITH, JR. **PADLOCKS.**

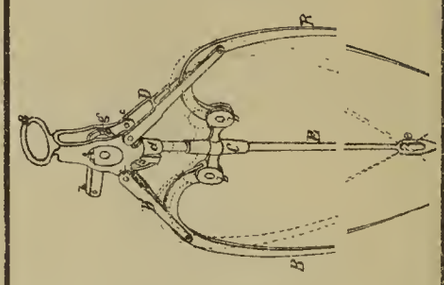
99,117, S. CURTIS SMITH.
SAFETY-STOP FOR WATCHES.

99,118. T. J. SMITH. **COMBINED PLOW, PLANTER, AND CULTIVATOR**

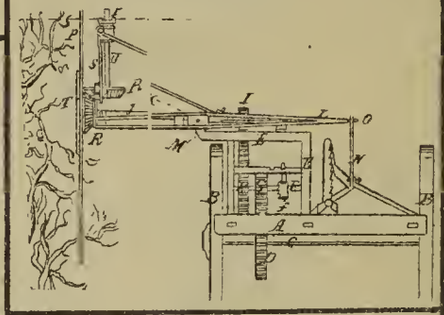


99,119, HENRY SOGGS.
VEGETABLE AND FRUIT-PARING KNIFE.

99,120, GEO. N. STEARNS.
HORSE HAY-FORKS.

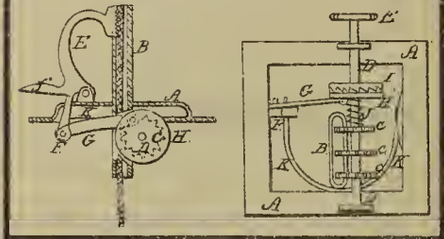


99,121, JAMES M. VAN NOSDALL.
OLIVER W. VAN NOSDALL.
HEDGE-TRIMMER.



99,122, J. S. WARNER. **THREAD-TENSION DEVICE FOR SEWING-MACHINE.**

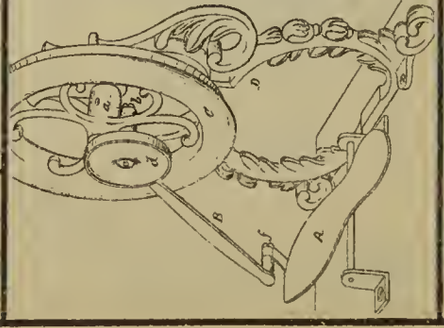
99,123, WM. H. WEEKS.
AUTOMATIC LIGHTING-ATTACHMENT FOR LAMPS AND TAPER-BURNERS.



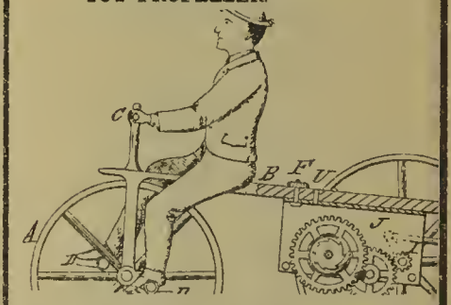
99,124, JOHN WERNER. **COMPOSITION FOR LINING ALE AND BEER-CASKS.**

99,125. J. P. WHITEHEAD.
RAILROAD TICKET.

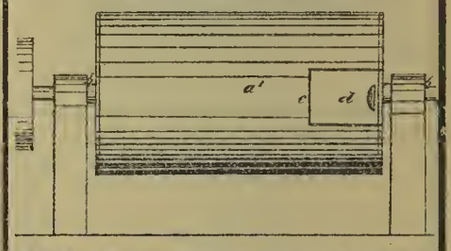
99,126, CHAS. H. WILLCOX.
TREADLES FOR SEWING-MACHINES.



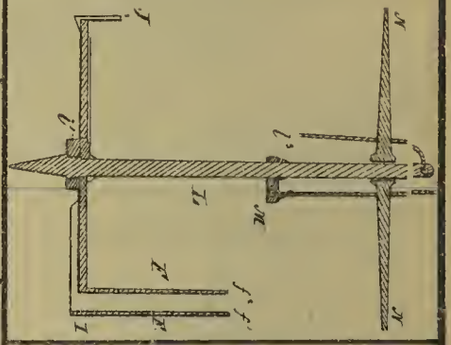
99,127 ARTHUR M. ALLEN
TOY PROPELLER.



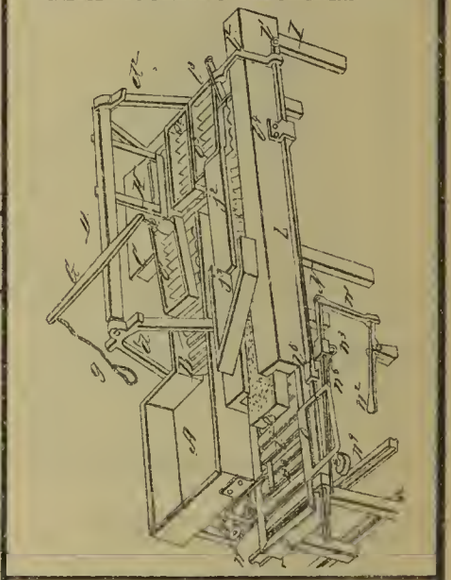
99,128. J. R. ALSING. **APPARATUS FOR PULVERIZING PORCELAIN-PASTE.**



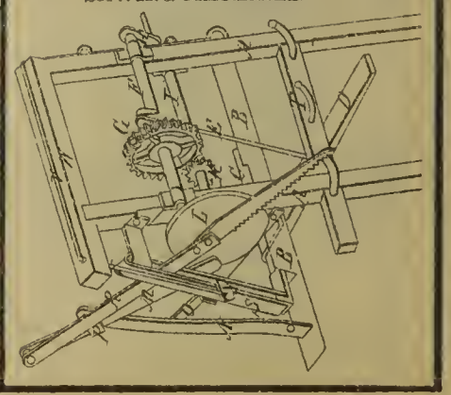
99,129. N. AUBIN. **PEAT AUGER.**



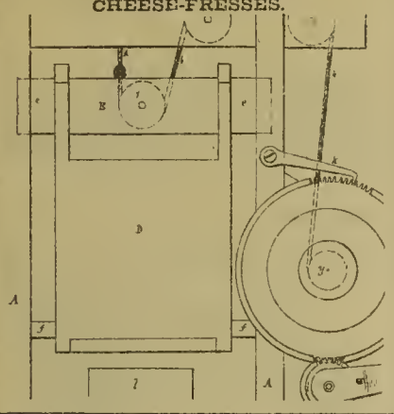
99,130, N. AUBIN.
PEAT-MOULDING MACHINES.



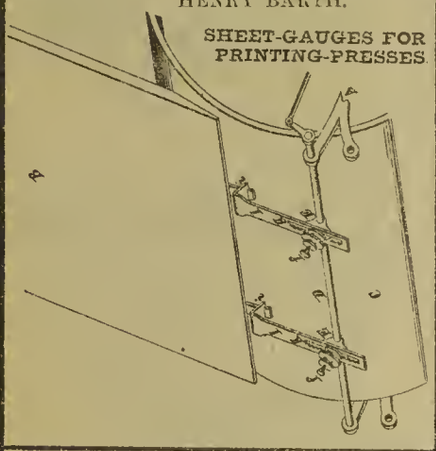
99,131, LOUIS BACH.
L. C. CHRISTLIP.
SAWING-MACHINES.



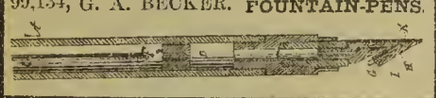
99,132, ALBERT G. BAGG.
CHEESE-PRESSES.



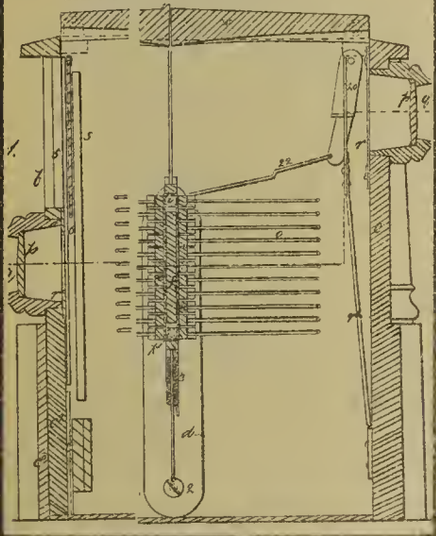
99,133, HENRY BARTH.
SHEET-GAUGES FOR PRINTING-PRESSES.



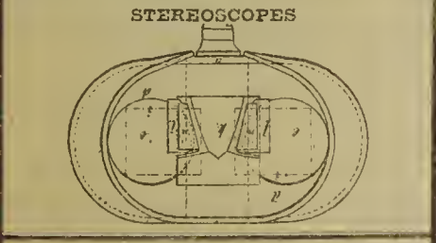
99,134, G. A. BECKER. FOUNTAIN-PENS.



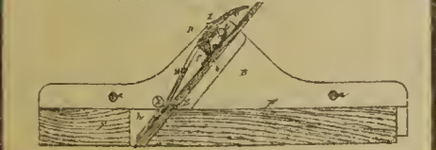
99,135, ALEX. BECKERS.
REVOLVING STEREOSCOPES.



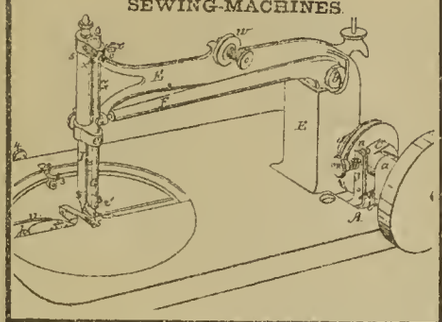
99,136, ALEX. BECKERS.
STEREOSCOPES



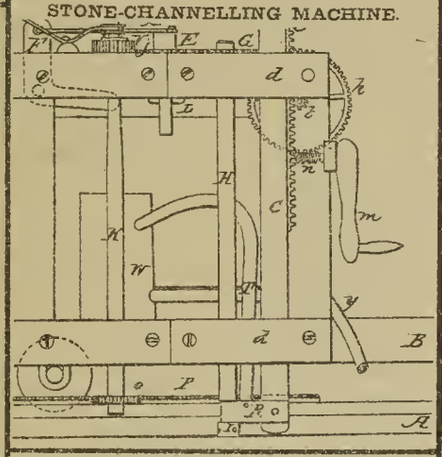
99,137, GEORGE CYRUS BECKWITH
JOINERS' PLANES.



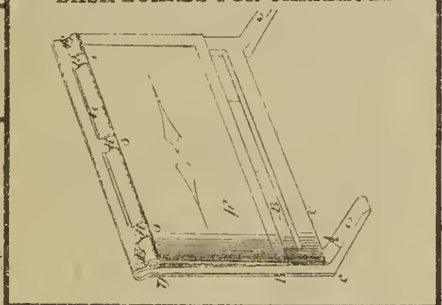
99,138, JOSEPH BENNOR.
SEWING-MACHINES.



99,139, VIRGIL W. BLANCHARD.
STONE-CHANNELLING MACHINE.

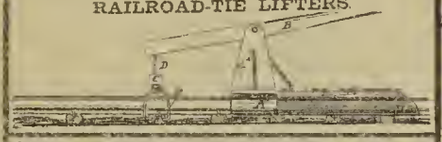


99,140, JOHN BLAND.
DASH-BOARDS FOR CARRIAGES.

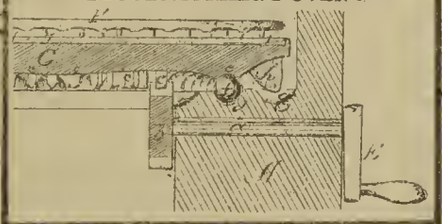


99,141. E. BOIVIN AND D. LOISEAU
PROCESS OF EXTRACTING,
MANUFACTURING, AND REFINING
SUGAR.

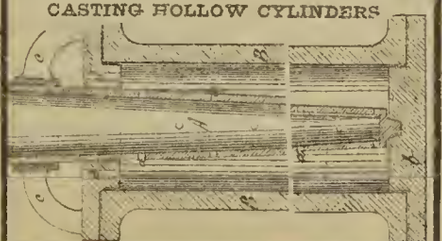
99,142, ELIJAH BOMAR.
RAILROAD-TIE LIFTERS.



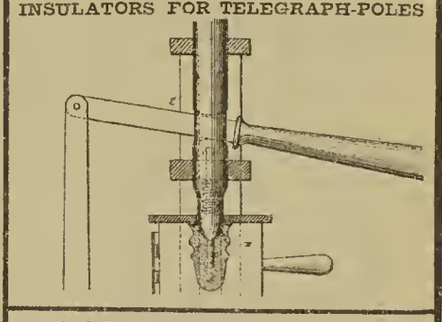
99,143, JOHN C. BREWSTER.
DESULPHURIZING-OVENS.



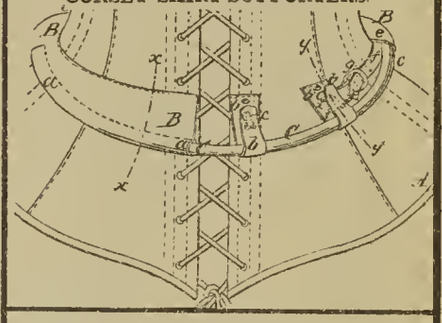
99,144, JOHN W. BRITTIN.
CASTING HOLLOW CYLINDERS.



99,145, HOMER BROOKE.
MANUFACTURE OF
INSULATORS FOR TELEGRAPH-POLES.

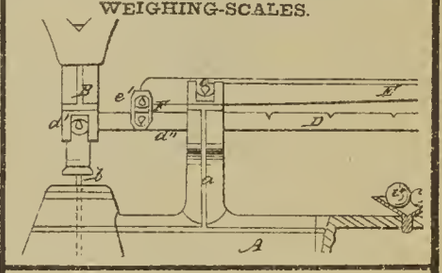


99,146, J. W. BROOKS.
CORSET SKIRT-SUPPORTERS.

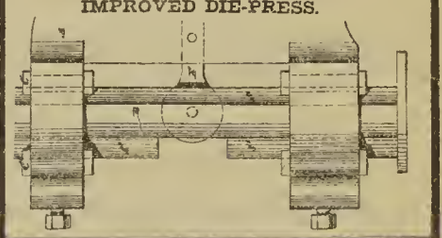


ALBERT G. BROWN. INK-RETAINING
99,147, ATTACHMENT FOR PENS.

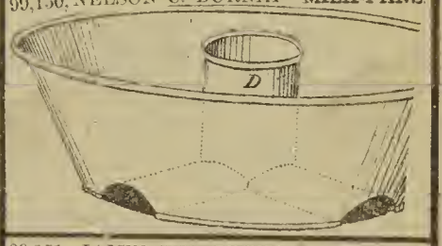
99,148, DENNIS BUOY.
WEIGHING-SCALES.



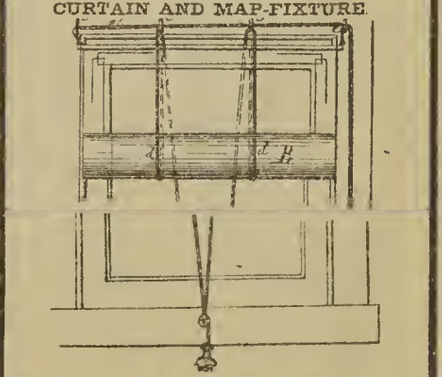
99,149, WM. BURKE.
IMPROVED DIE-PRESS.



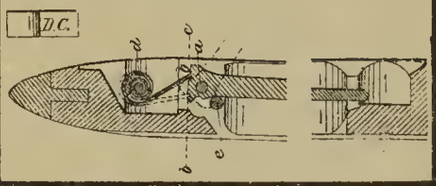
99,150, NELSON C. BURNAP. MILK-PANS.



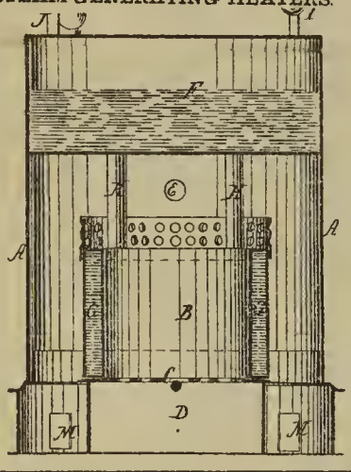
99,151, JAMES WM. BURNS.
CURTAIN AND MAP-FIXTURE.



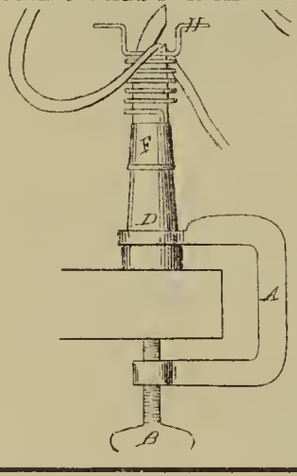
99,152. W. H. BURNS.
SHUTTLE FOR LOOMS.



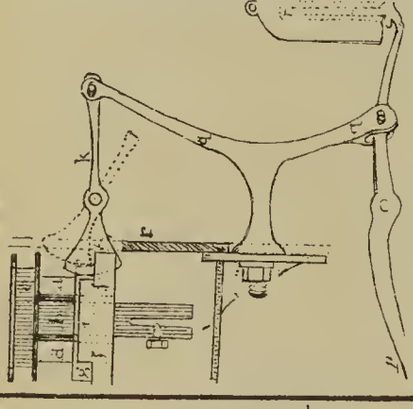
99,153, C. A. BUTTLES.
STEAM-GENERATING HEATERS.

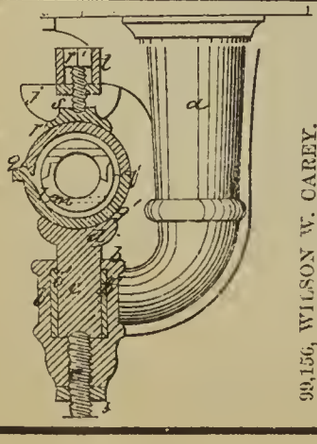


99,154, B. F. CADY. SLITTING AND JOINING RAGS FOR CARPETS.



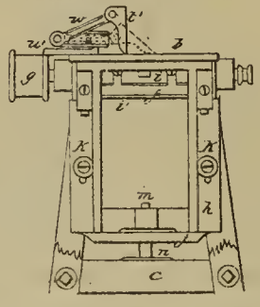
99,155, M. E. CAMPFIELD.
MORTISING-MACHINE.



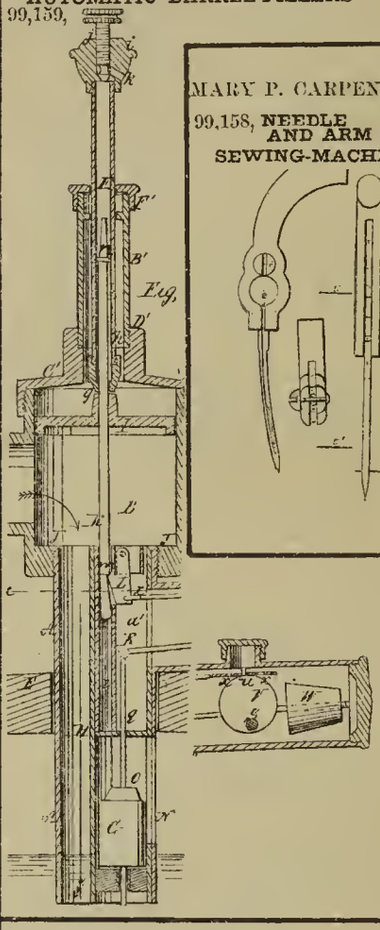


99,156, WILSON W. CAREY.
GEO. W. HARRIS.
HANGERS FOR SHAFTING.

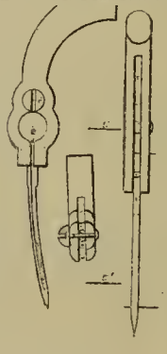
99,157. WILSON W. CAREY.
G. W. HARRIS.
PLANING MACHINE.



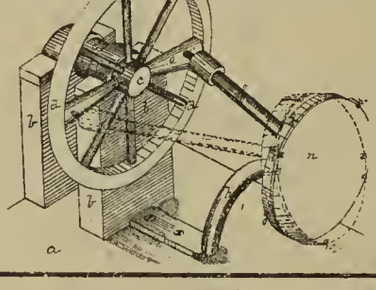
S. C. CATLIN.
AUTOMATIC BARREL-FILLERS
99,159,



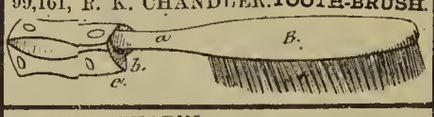
MARY P. CARPENTER.
99,158, NEEDLE AND ARM FOR SEWING-MACHINE.



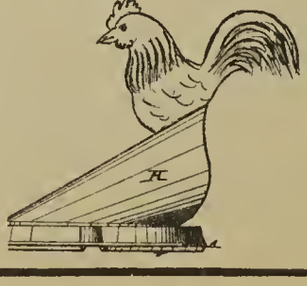
99,160. JOHN CHAMBERS.
MACHINE FOR REMOVING THE "BLOW-OVER" ON GLASS JARS, &c.



99,161, R. K. CHANDLER. TOOTH-BRUSH.

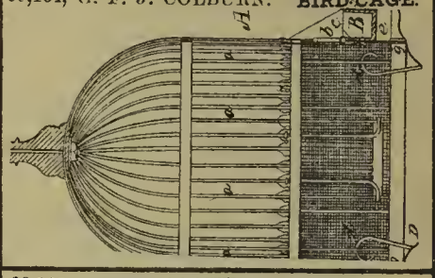


LINUS N. CHAPIN. CHIMNEY-COWL
99,162,

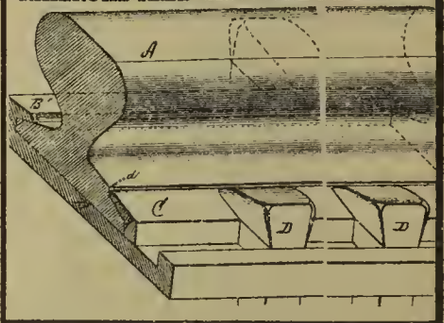


99,163, J. A. CLIPPINGER.
SHOEMAKERS' TOOLS.

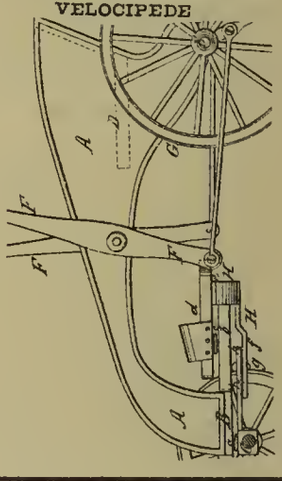
99,164, G. F. J. COLBURN. BIRD-CAGE.



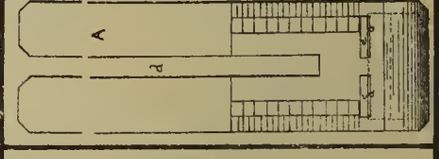
99,165, WATTS COOKE.
RAILROAD-RAIL AND BASE-PLATE.



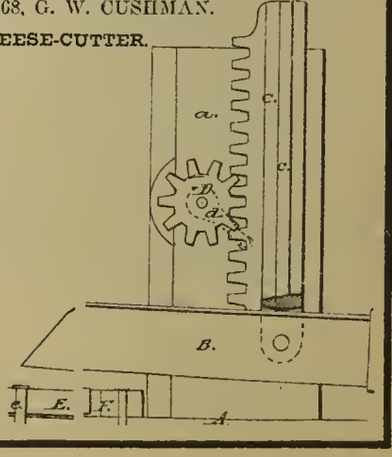
99,166, JESSE A. CRANDALL.
VELOCIPEDE



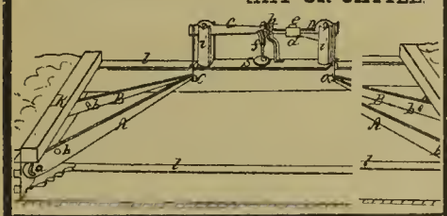
99,167, GEO. B. CUMMINGS.
SHEET-GAUGES FOR PRINTING-PRESSES



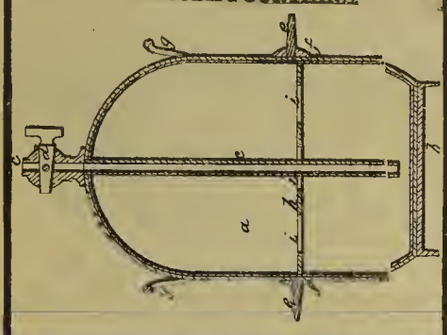
99,168, G. W. CUSHMAN.
CHEESE-CUTTER.



99,169, DANIEL H. DEWEY.
PLATFORM-SCALES FOR HAY OR CATTLE.

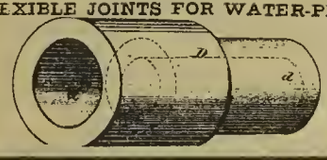


99,170, GUSTAVUS D. DOWS.
SODA-FOUNTAINS.

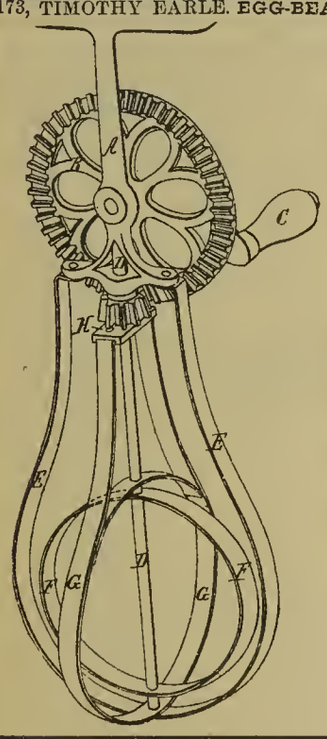


99,171, THOMAS M. DROWN.
WATER-PROOF FABRIC.

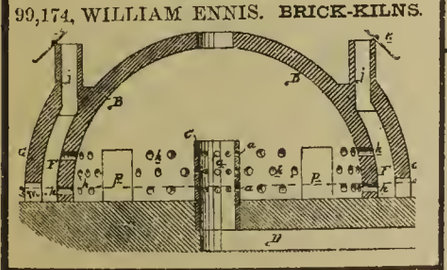
99,172, M. C. DUFFEY.
FLEXIBLE JOINTS FOR WATER-PIPES.



99,173, TIMOTHY EARLE. **EGG-BEATER.**

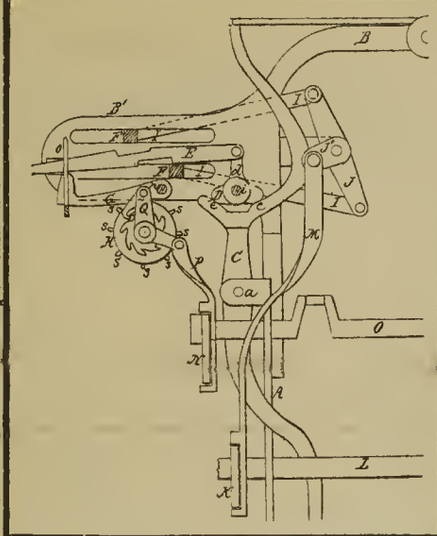


99,174, WILLIAM ENNIS. **BRICK-KILNS.**

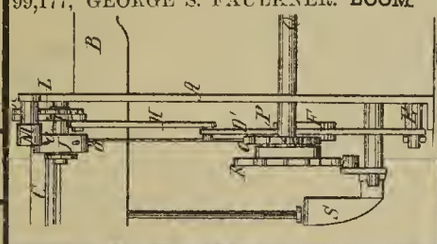


99,175, **RECTIFYING WHISKEY DURING DISTILLATION.**

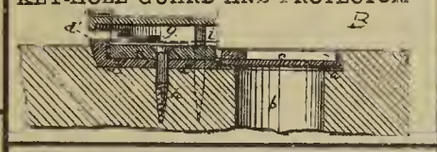
99,176, GEORGE S. FAULKNER.
HARNESS-OPERATING MECHANISM FOR LOOMS.



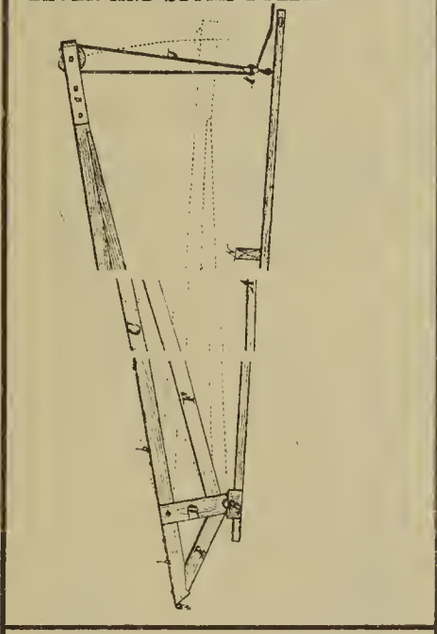
99,177, GEORGE S. FAULKNER. **LOOM.**



99,178, JOSEPH G. FOX.
KEY-HOLE GUARD AND PROTECTOR.

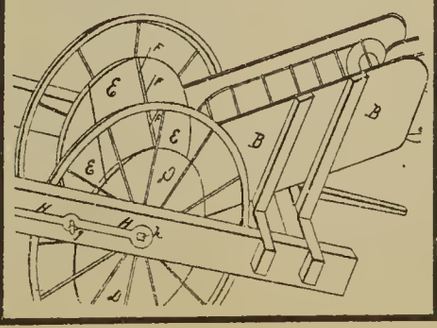


99,179, HENRY M. FLANAGIN.
LEVER AND STUMP-PULLER.

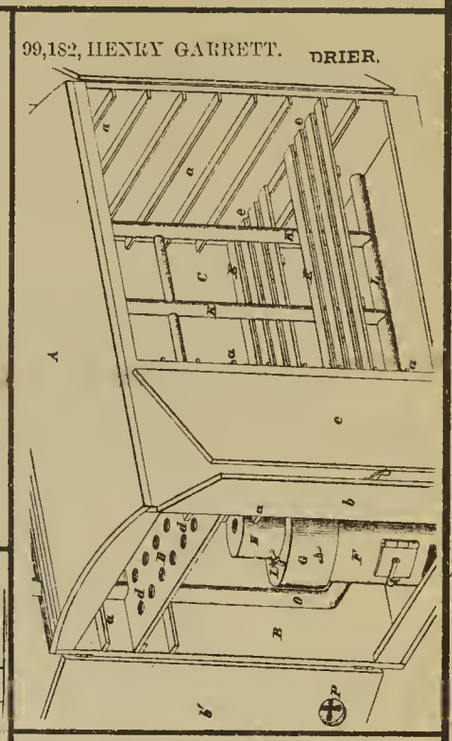


99,180, HENR. GAHN.
PRESERVING MEAT.

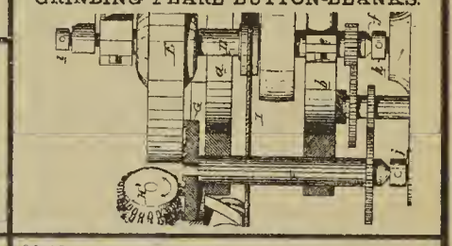
99,181, CYRUS B. GARLINGHOUSE.
HAY-LOADERS.



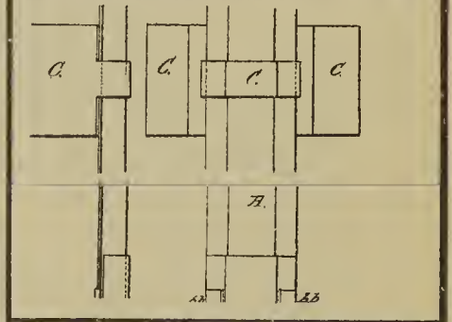
99,182, HENRY GARRETT. **DRIER.**



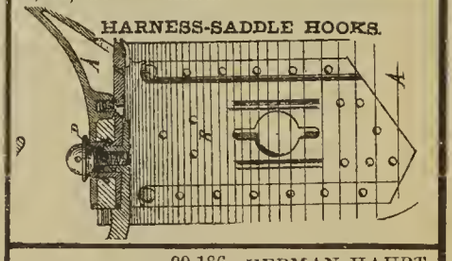
99,183, JOHN D. HALL. **MACHINE FOR GRINDING PEARL BUTTON-BLANKS.**



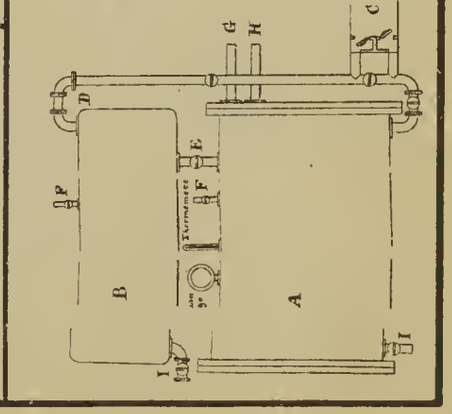
99,184, JAMES W. HANKENSON.
LIGHTNING-RODS AND CONDUCTORS.



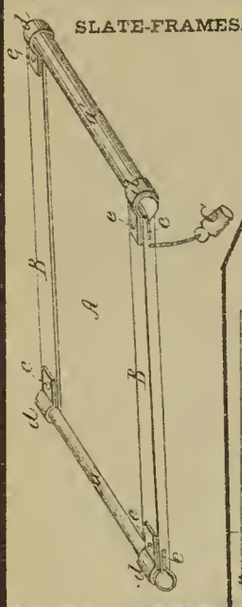
99,185, ROBT. HART.
HARNESS-SADDLE HOOKS.



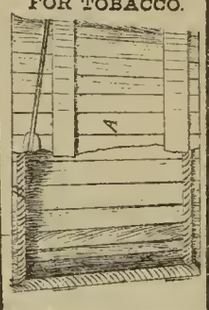
99,186, HERMAN HAUPT.
DRYING, PRESERVING, AND COLORING WOOD OR OTHER FIBROUS MATERIAL.



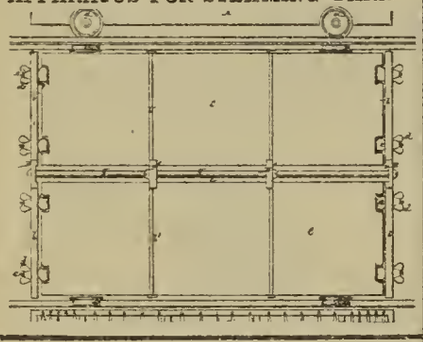
99,187, WILLIAM HERSEE.
SLATE-FRAMES.



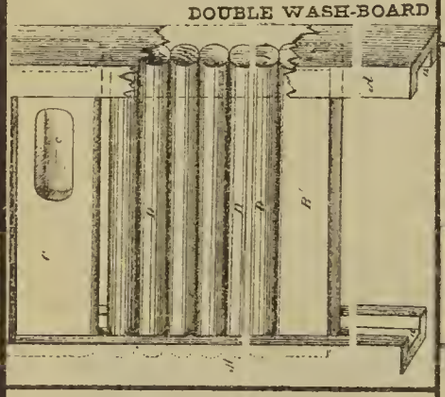
99,188, S. F. HESS.
PACKING-CASE FOR TOBACCO.



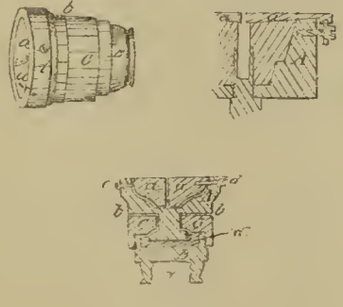
99,189, JOHN H. HIGGINS.
APPARATUS FOR STEAMING YARN.



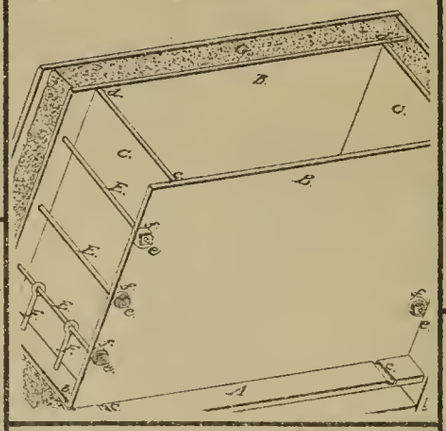
99,190, HENRY F. HILDEBRAND.
DOUBLE WASH-BOARD



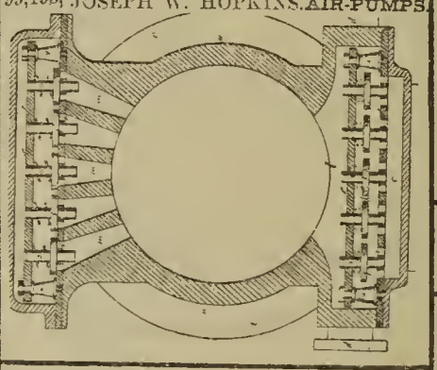
99,191, LYSANDER S. HILL.
JEWELLERS' CHUCK.



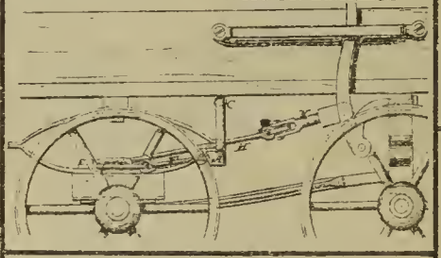
99,192, PETER S. HOE.
BATTERIES FOR ELECTROTYPING.



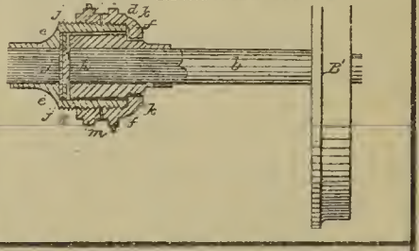
99,193, JOSEPH W. HOPKINS. AIR-PUMPS.



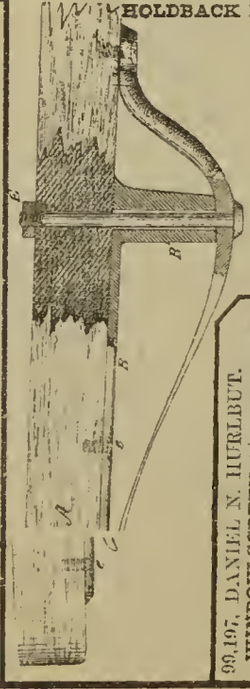
99,194, CHARLES M. HOWELL.
WAGON-BRAKES.



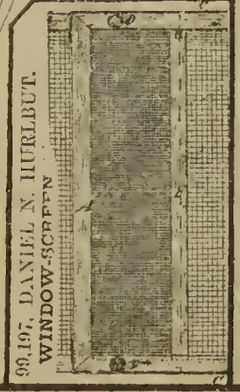
99,195, FRANK HUDNER.
RAILWAY-CAR AXLE.



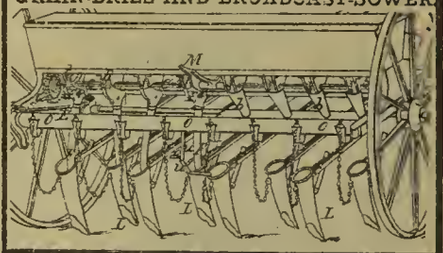
99,196, JAMESON HUNLOCK.
HOLDBACK FOR CARRIAGES.



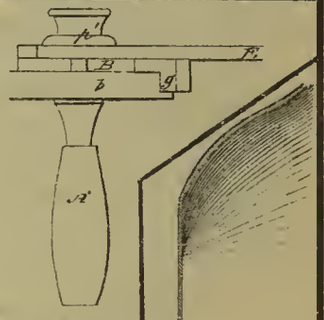
99,197, DANIEL N. HURLBUT.
WINDOW-SCREEN.



99,198, JOSEPH INGELS.
GRAIN-DRILL AND BROADCAST-SOWER.

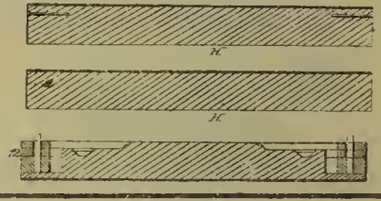


99,199, SIMON INGERSOLL.
FRICTION-CLUTCH.

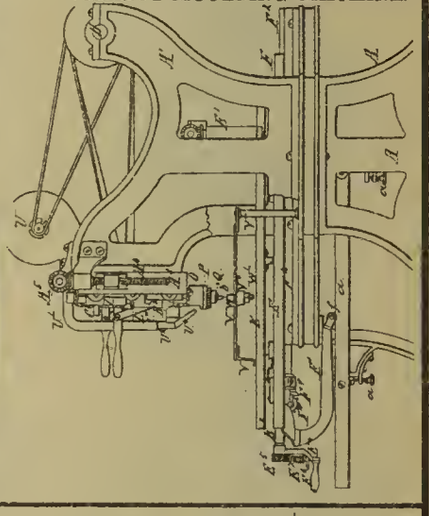


99,200, JOHN W. JARBOE.
PAPER PAN, BOWL, BOX AND DISH.

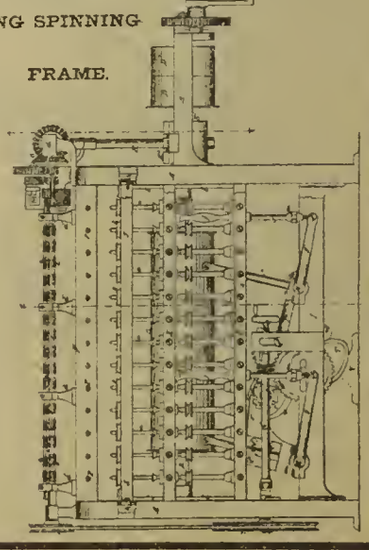
99,201, NICHOLAS JENKINS.
METHOD OF WOOD-WORKING.



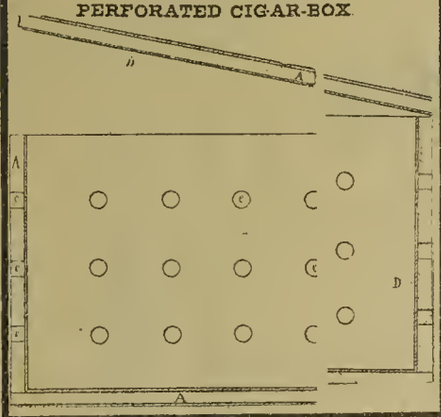
99,202, NICHOLAS JENKINS.
VARIETY-MOULDING MACHINE.



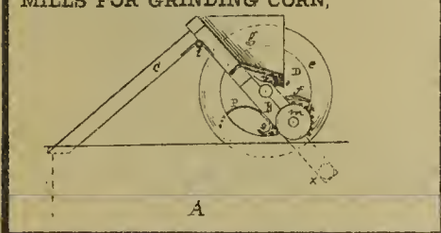
99,203, BARTON H. JENKS.
RING SPINNING FRAME.



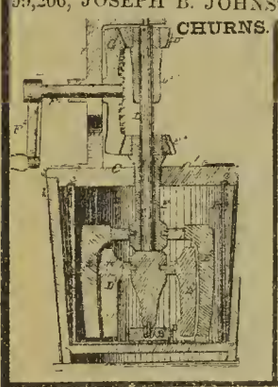
99,204, RALPH S. JENNINGS.
PERFORATED CIGAR-BOX.



99,205, JAMES J. JOHNSTON.
MILLS FOR GRINDING CORN.

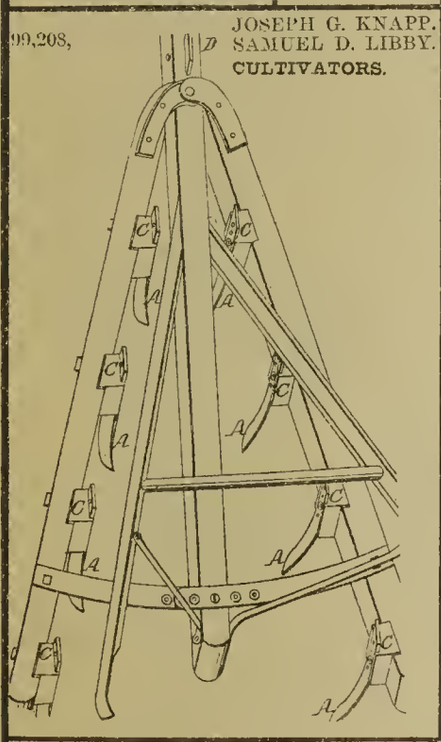


99,206, JOSEPH B. JOHNSTON.
CHURNS.



99,207,
C. P. KIMBALL.
SLEIGHS.

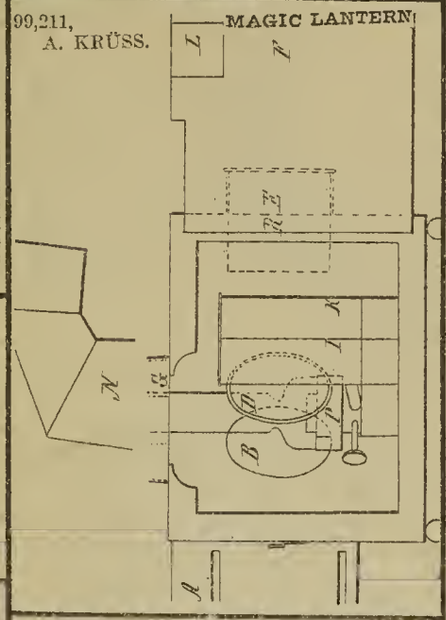
99,208,
JOSEPH G. KNAPP.
SAMUEL D. LIBBY.
CULTIVATORS.



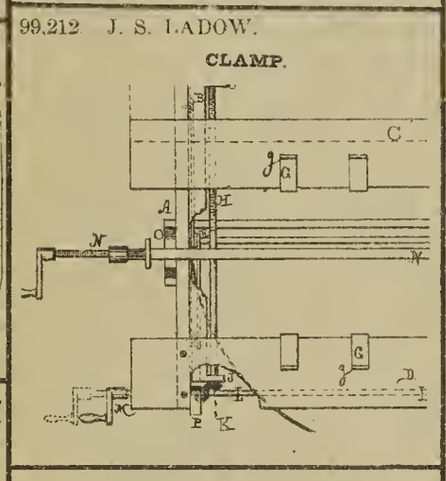
99,209, CHARLES KOEHLER.
MACHINES FOR ROUNDING SHOT.

99,210, A. KOMP.
RAILWAY-CAR WHEEL.

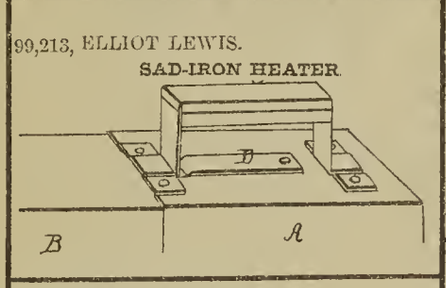
99,211,
A. KRÜSS.
MAGIC LANTERN.



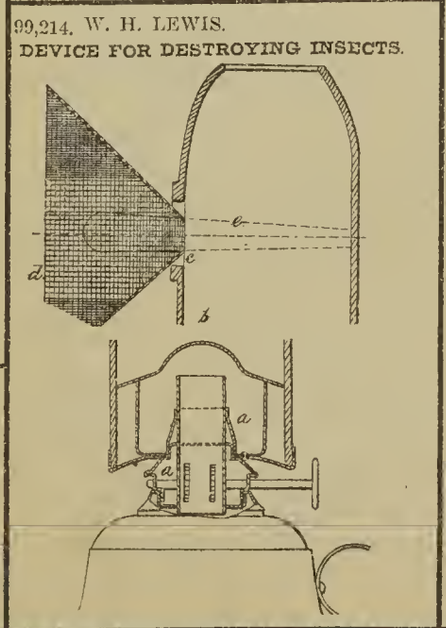
99,212 J. S. LADOW.
CLAMP.



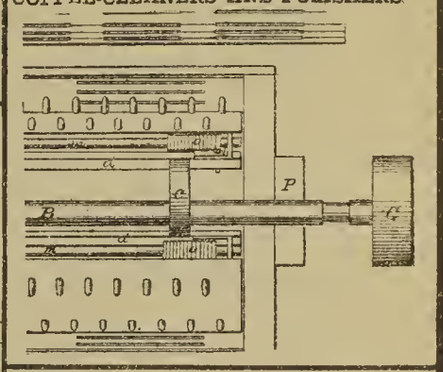
99,213, ELLIOT LEWIS.
SAD-IRON HEATER.



99,214. W. H. LEWIS.
DEVICE FOR DESTROYING INSECTS.

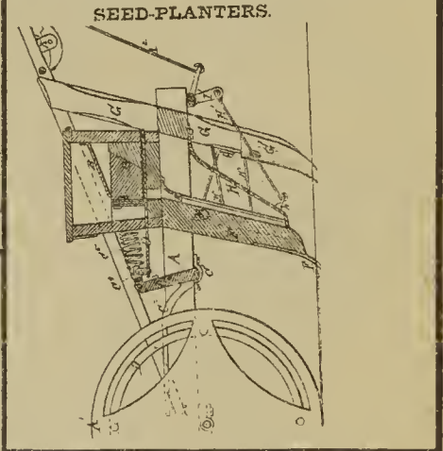


99,215, H. C. LOCKWOOD.
COFFEE-CLEANERS AND POLISHERS.

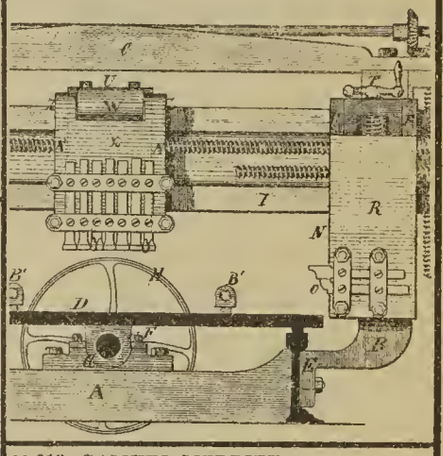


99,216. OLIVER T. MAY.
NON-CORROSIVE METALLIC ROOFING.

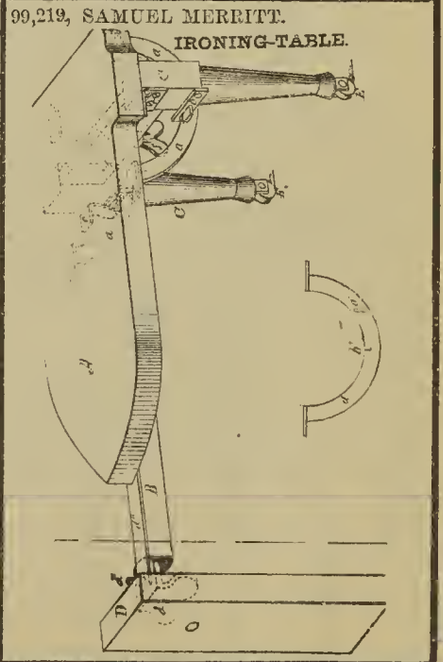
99,217. NOAH MENDENHALL.
SEED-PLANTERS.



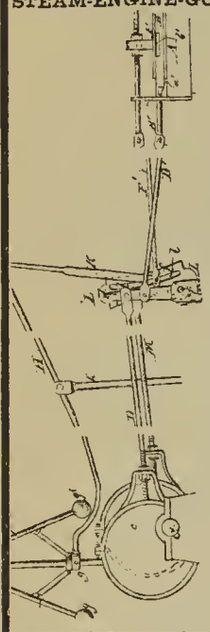
99,218, ANDREWS T. MERRIMAN.
STONE-PLANING MACHINE.



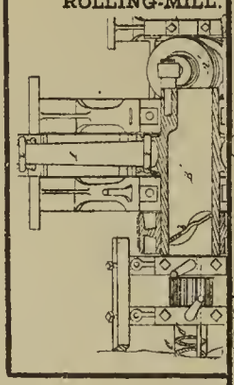
99,219, SAMUEL MERRITT.
IRONING-TABLE.



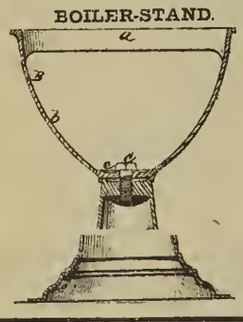
99,220, GEO. MILBANK.
STEAM-ENGINE-GOVERNOR CUT-OFFS.



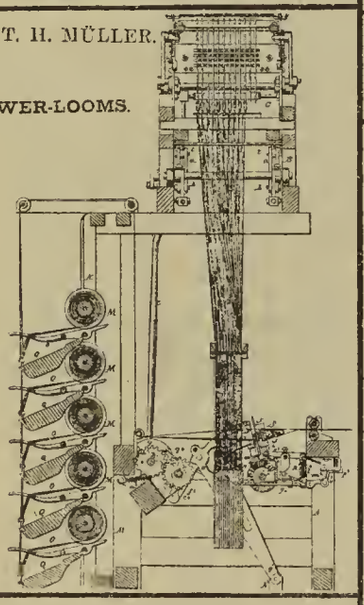
99,221, J. MONTGOMERY.
ROLLING-MILL.



99,222, JORDAN L. MOTT.
BOILER-STAND.

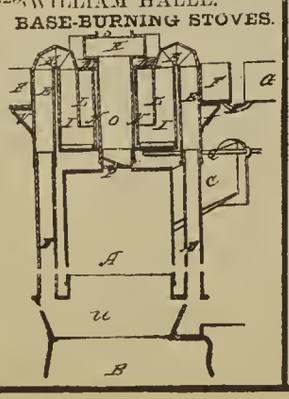


99,223, T. H. MÜLLER.
POWER-LOOMS.

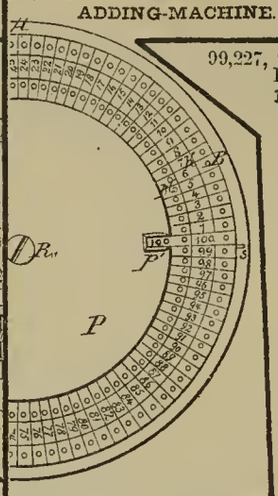


99,224, JUNIUS S. NORTON.
POCKET-SAFES FOR FRICTION-MATCHES.

99,225, FRANK Z. OBERMEYER.
WILLIAM HALLE.
BASE-BURNING STOVES.

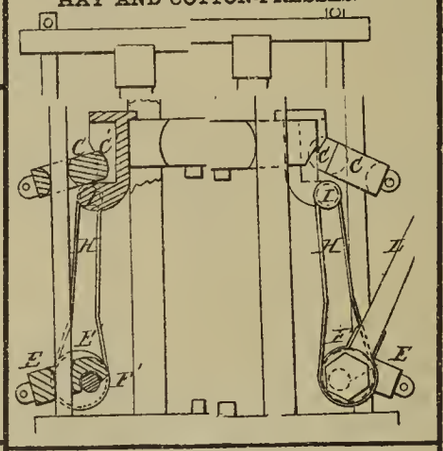


99,226, H. PARMELEE.
ADDING-MACHINE.



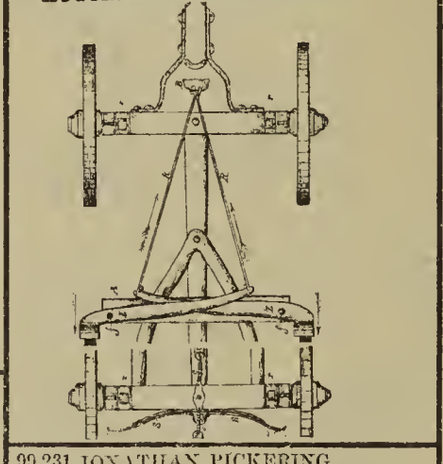
99,227, C. PARTRIDGE.
PRESTON.
POST-AUGERS.

99,228, I. N. PATTEN.
D. G. MARDEN.
HAY AND COTTON-PRESSES.

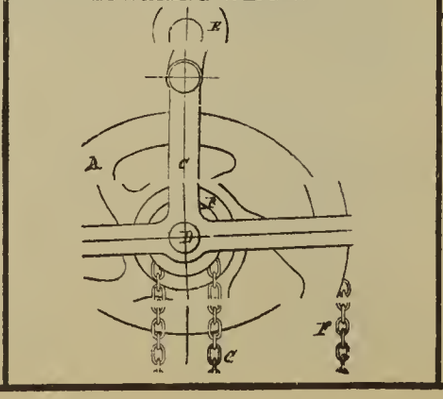


99,229, DORWIN DORMAN PENNOYER.
PAINT OR COATING FOR ROOFS.

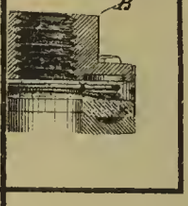
99,230, SAMUEL J. PICKERILL.
FRANCIS M. PICKERILL.
AUTOMATIC WAGON-BRAKE.



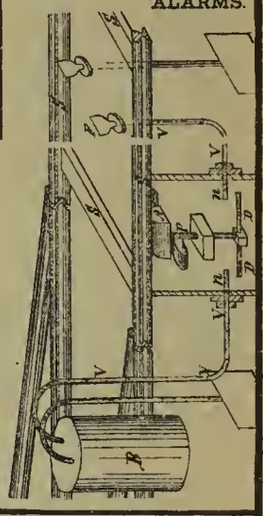
99,231, JONATHAN PICKERING.
APPARATUS FOR RAISING AND LOWERING WEIGHT



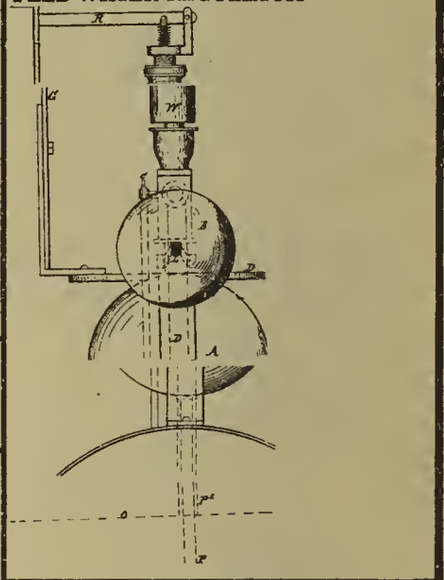
99,232, DANIEL R. PRATT.
SPRING-NUT.



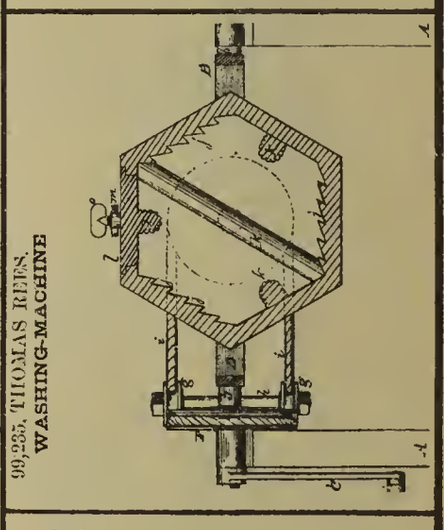
99,233, T. A. B. PUTNAM.
RAILROAD-SWITCH ELECTRO-MAGNETIC ALARMS.



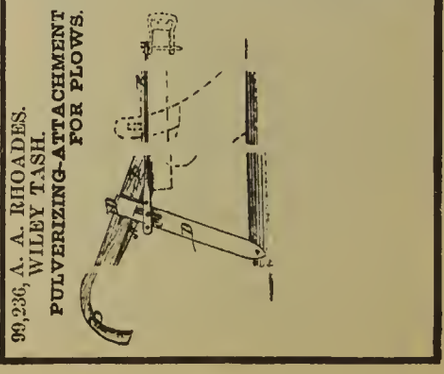
99,234, ROBERT BERRYMAN.
LOW-WATER INDICATOR AND FEED-WATER REGULATOR.

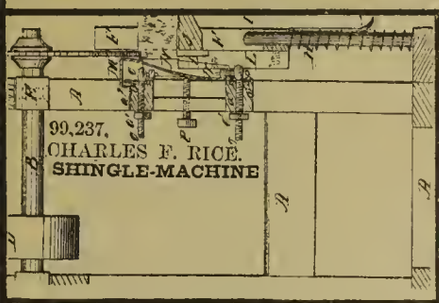


99,235, THOMAS REES.
WASHING-MACHINE



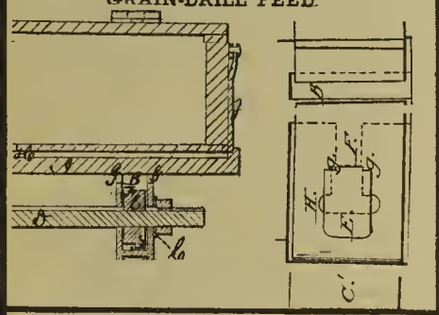
99,236, A. A. RHOADES.
WILBY TASH.
PULVERIZING-ATTACHMENT FOR PLOWS.



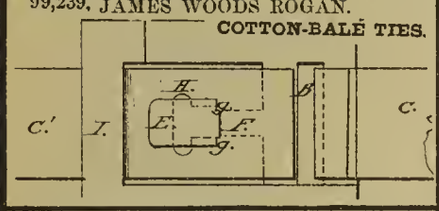


99,237, CHARLES F. RICE. SHINGLE-MACHINE

99,238, JOHN L. RITER. GRAIN-DRILL FEED.



99,239, JAMES WOODS ROGAN. COTTON-BALE TIES.



99,240, JACOB F. SAIGER. PROCESS OF PRESERVING BUTTER.

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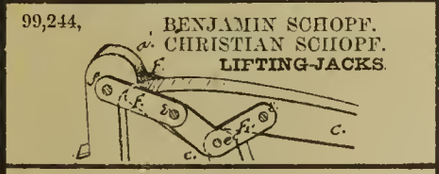

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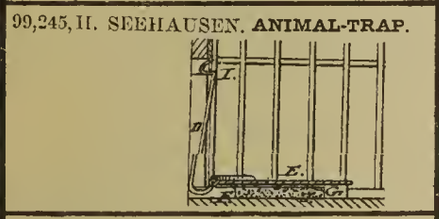

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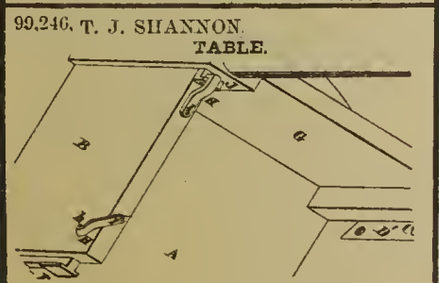

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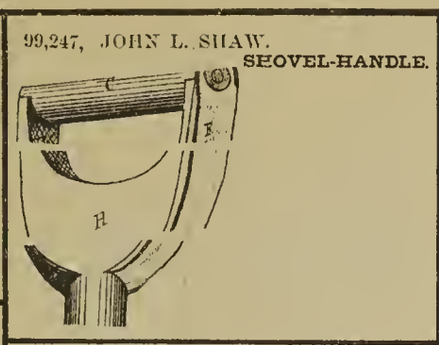

99,248, ALEXANDER J. SHELDON. MANUFACTURE OF PARCHMENT-PAPER.

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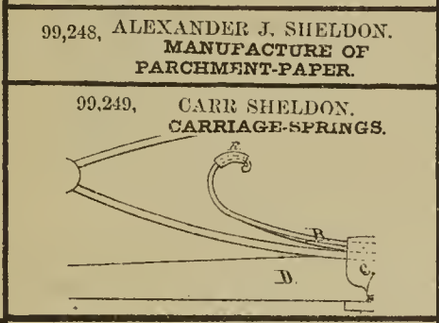

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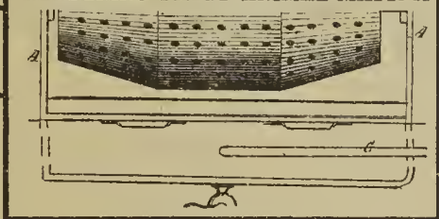
99,252, AMOR SMITH. APPARATUS FOR RENDERING FATTY ANIMAL MATTER.



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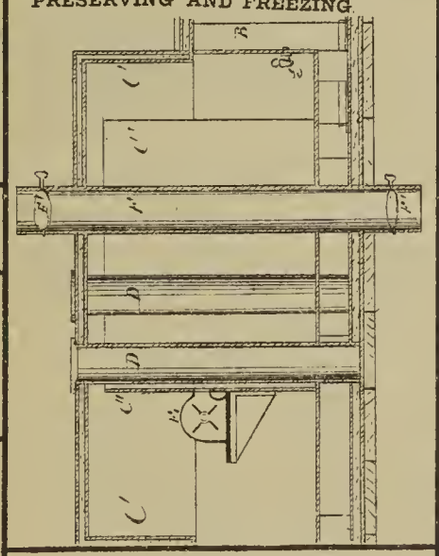
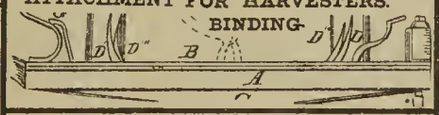
99,254, D. E. SOMES. APPARATUS FOR PRESERVING AND FREEZING.

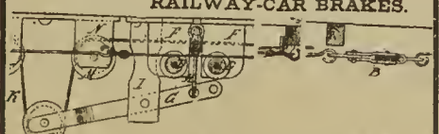


99,255, I. W. SPEYER. FERTILIZERS.

99,256, B. W. SQUIRES. CHAS. M. CLINTON. ATTACHMENT FOR HARVESTERS. BINDING.



99,257, JOSEPH STEGER. RAILWAY-CAR BRAKES.



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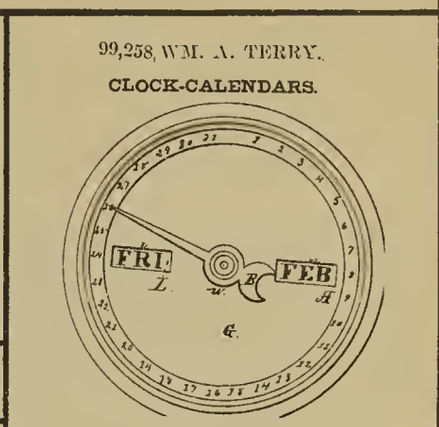
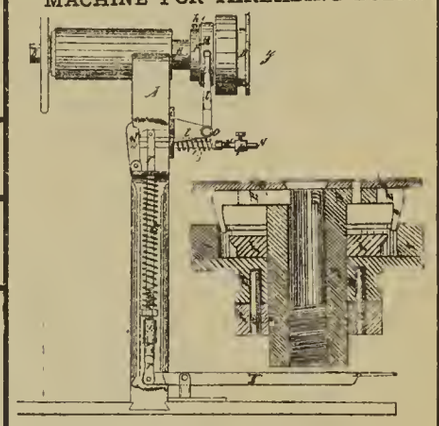


99,259, NICHOLAS THOMAS. MACHINE FOR THREADING BOLTS.



99,260, GEORGE K. THOMPSON. PAINT-BRUSH.

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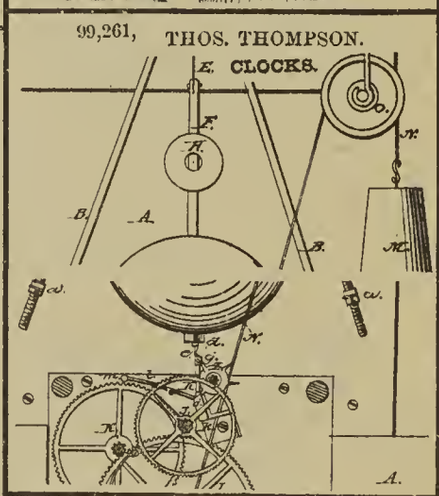

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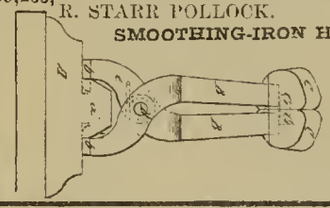

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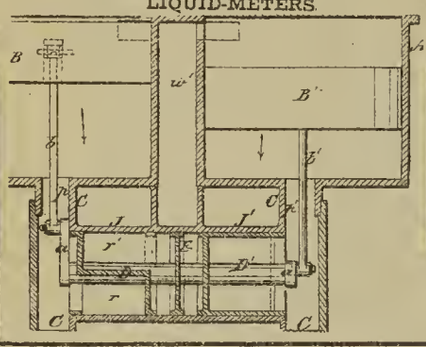

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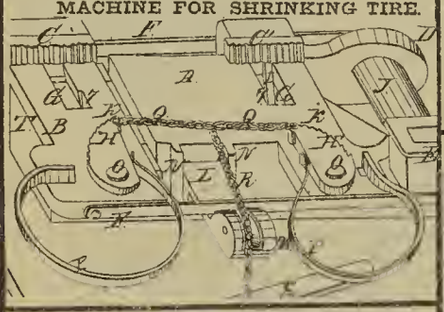

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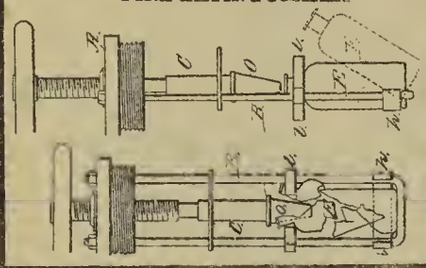

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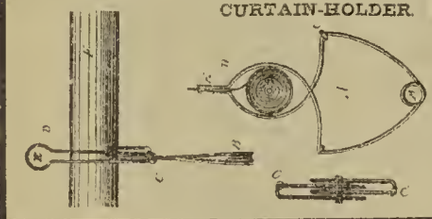

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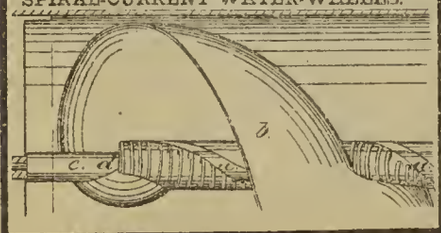

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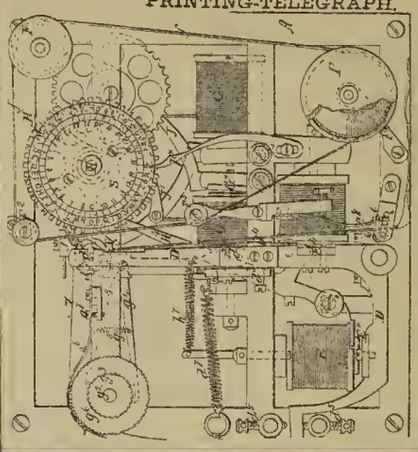

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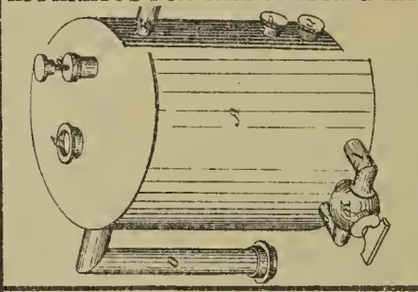

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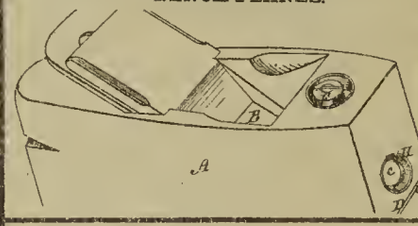

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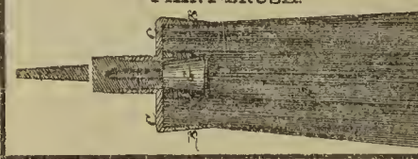

3,804, JAMES McCORMICK.
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3,805, WILLIAM F. RIPPON.
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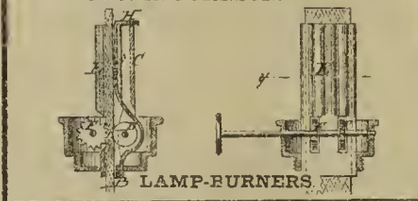

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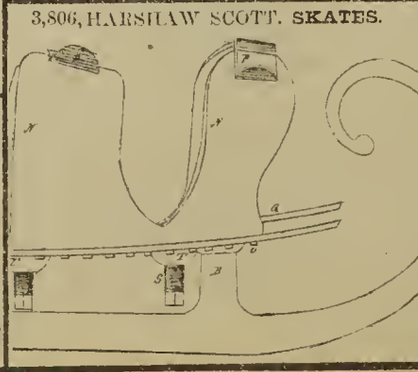
3,806, HARSHAW SCOTT. SKATES.



3,807. C. STETEFELDT.
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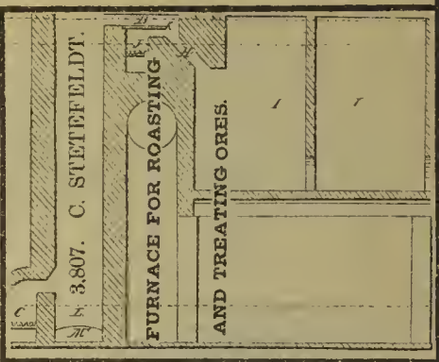
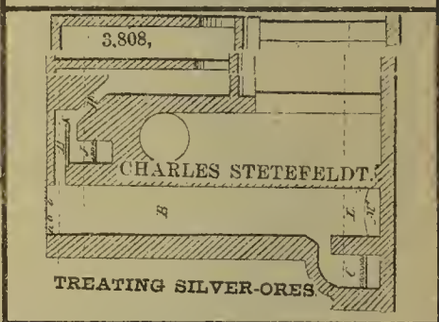


3,808,
CHARLES STETEFELDT.



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3,809, H. L. STUART.
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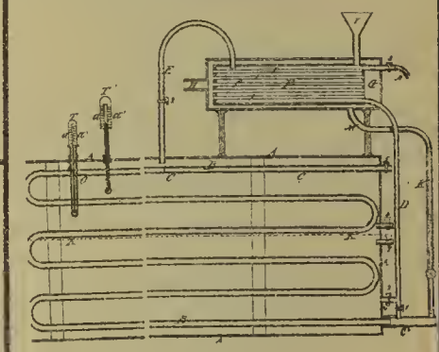

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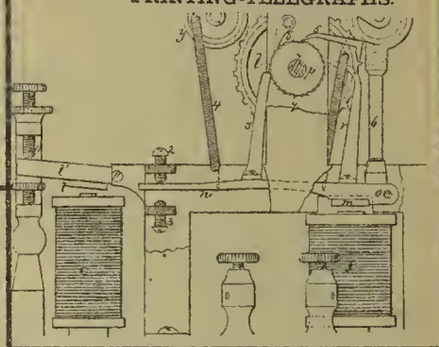
H. L. HOTCHKISS.
PRINTING-TELEGRAPHS.



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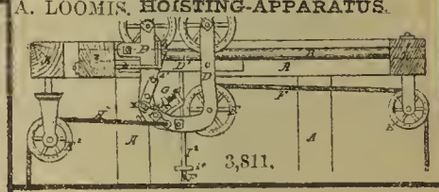

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3,812, GEO. B. FIELD, PRINTING-
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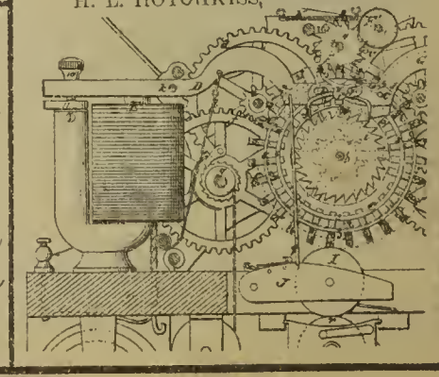

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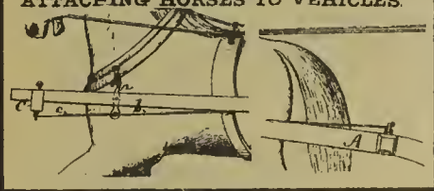

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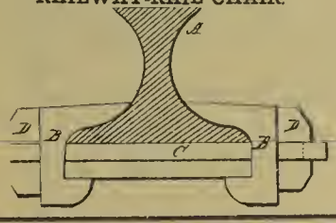

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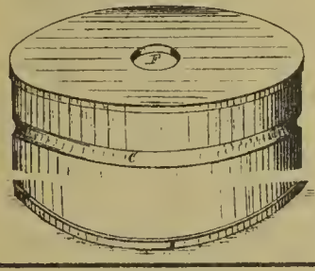

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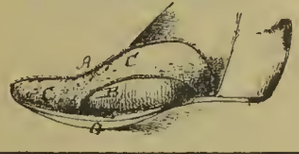

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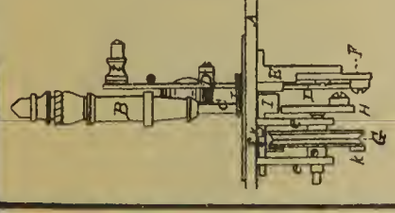
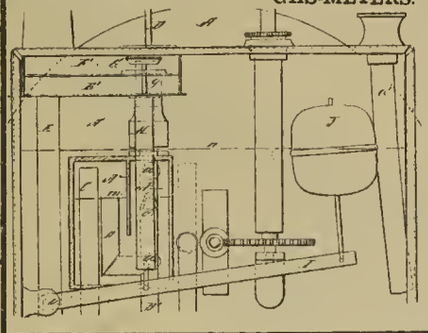


99,284. T. BOND. **TRUNK.**

99,285, THOMAS BRATTAN. **GAS-METERS.**



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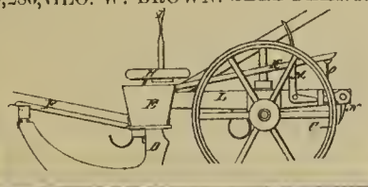

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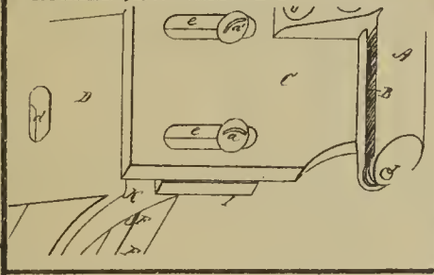

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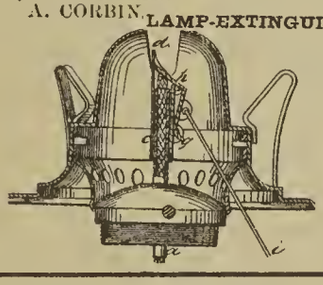
99,289, S. C. CATLIN. A. CORBIN. **LAMP-EXTINGUISHER.**



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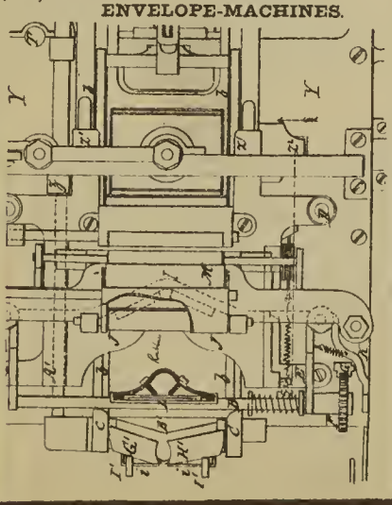
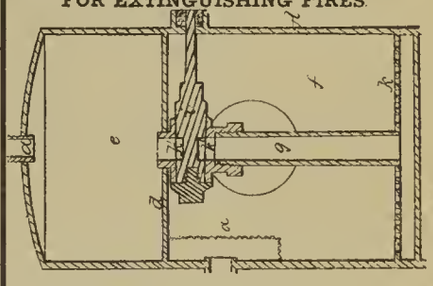
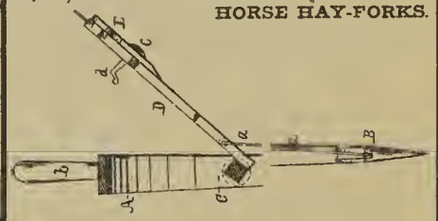


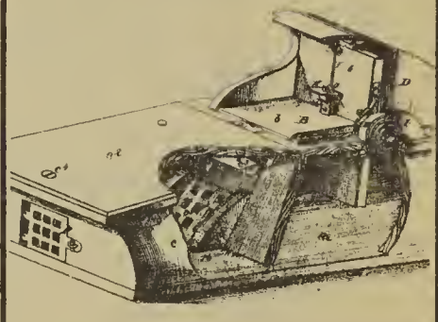
99,291, I. H. CLARK. **APPARATUS FOR EXTINGUISHING FIRES.**



99,292, SIMEON CLARK. **HORSE HAY-FORKS.**

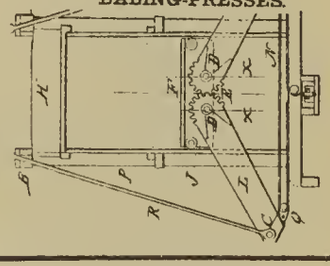


99,293, W. J. CLARKSON. **ANIMAL-TRAP.**

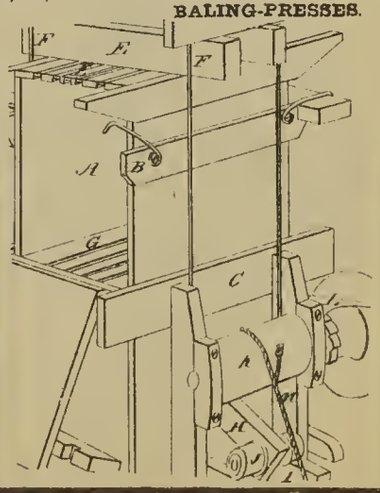


99,294, JOHN COMMINS. **FERTILIZERS.**

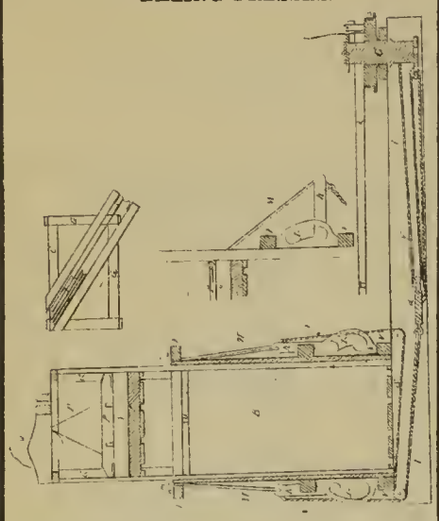
99,295, PETER K. DEDERICK. **BALING-PRESSES.**



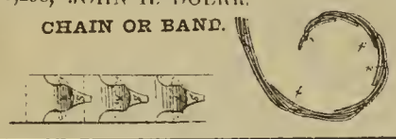
99,296, PETER K. DEDERICK. **BALING-PRESSES.**



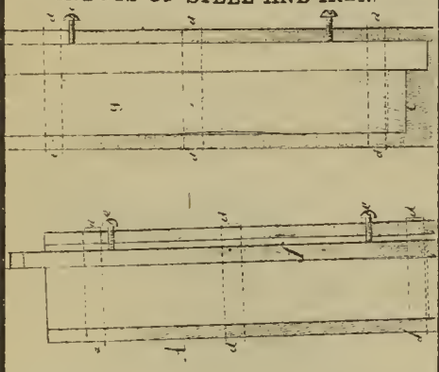
99,297, PETER K. DEDERICK.
BALING PRESSES.



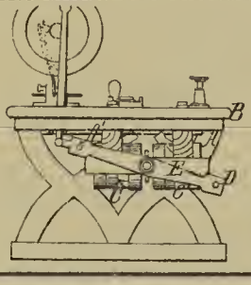
99,298, JOHN H. DOERR.
CHAIN OR BAND.



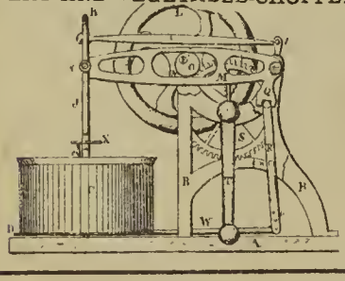
99,299, PATRICK DOYLE
MOULDS FOR MAKING COMBINED INGOTS OF STEEL AND IRON.



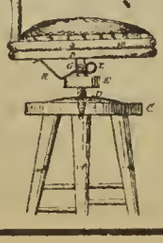
99,300, A. E. DUPAS.
ELECTRO-MAGNETIC MACHINES.



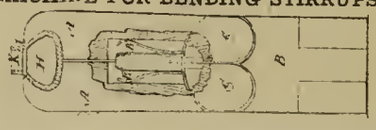
99,301, S. F. EMERSON.
MEAT AND VEGETABLE-CHOPPER.



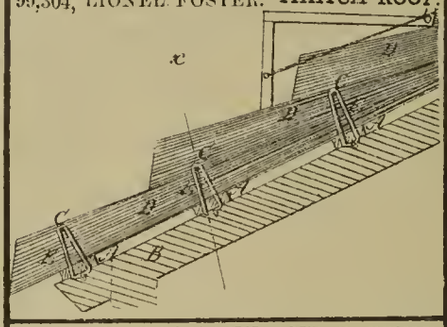
99,302, AMASA J. FINCH.
PRINTERS' CHAIR.



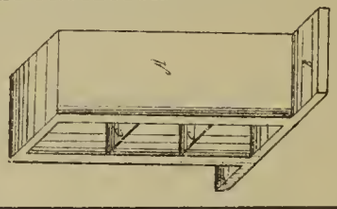
99,303, DEMSEY FOREST.
MACHINE FOR BENDING STIRRUPS



99,304, LIONEL FOSTER. THATCH ROOF.

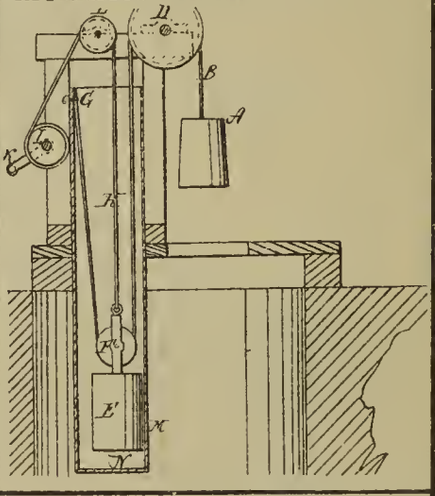


99,305. H. GALMANN AND C. RUHE.
JOIST PROTECTOR.

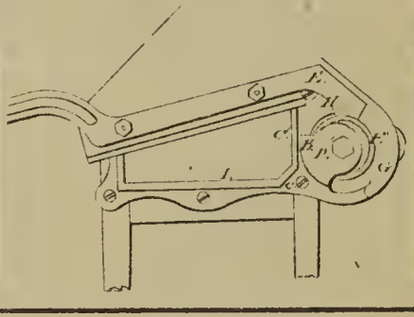


99,306, SMITH GARDNER.
COLORING MARBLE.

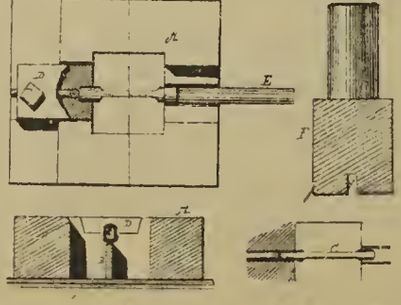
99,307, J. L. GARLINGTON.
APPARATUS FOR RAISING WATER.



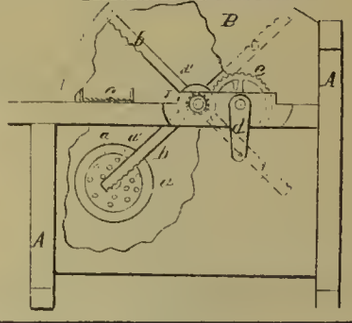
99,308. G. S. GARTH. STRAW-CUTTERS.



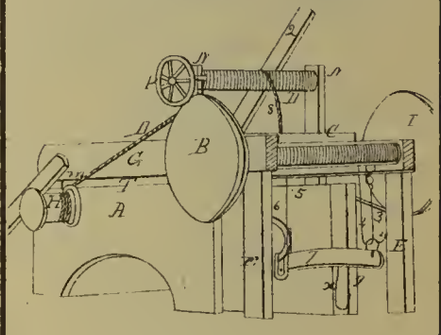
99,309, JOHN GIBBS. PUNCH AND DIE FOR PUNCHING TUBES.



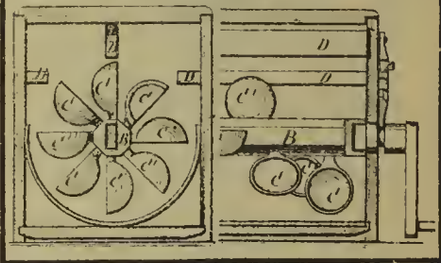
99,310, E. W. GRIFFIN.
THRESHING-MACHINE.



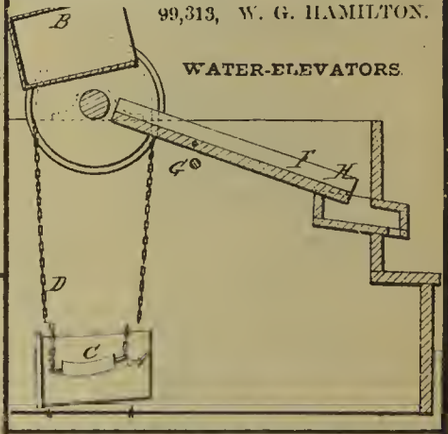
99,311, ALBERT GUMMER.
STUMP-EXTRACTORS.



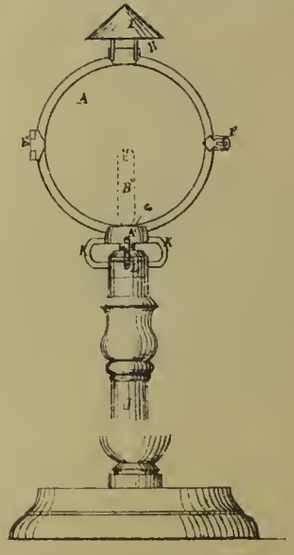
99,312, FLOYD HAMBLIN. CHURNS



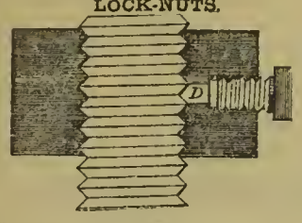
99,313, W. G. HAMILTON.
WATER-ELEVATORS.



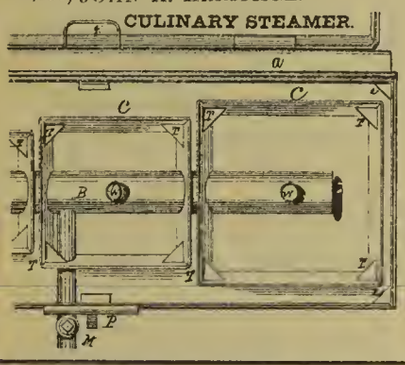
99,314, J. F. HARLY. STREET-LAMPS.



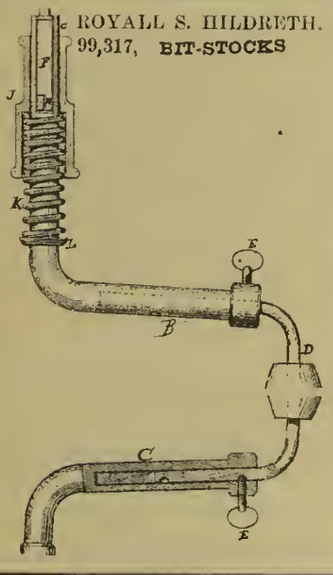
99,315, GARET G. HEERMANCE.
LOCK-NUTS.



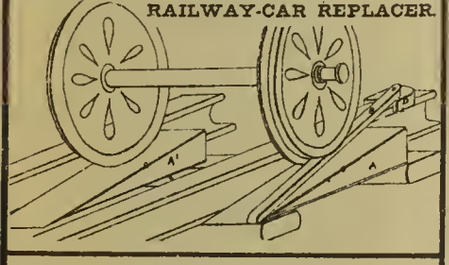
99,316, JOHN H. HERITAGE.
CULINARY STEAMER.



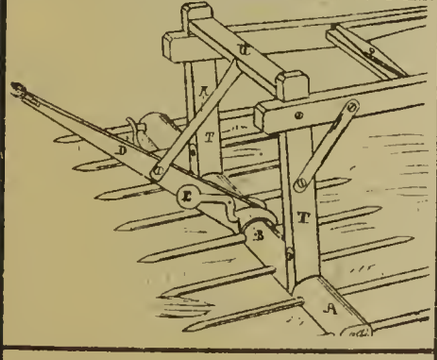
ROYALL S. HILDRETH.
99,317, BIT-STOCKS



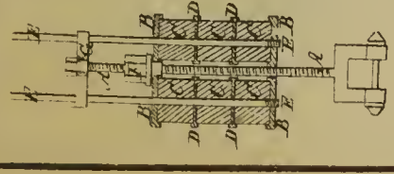
99,318, HORACE H. HOLMES.
RAILWAY-CAR REPLACER.



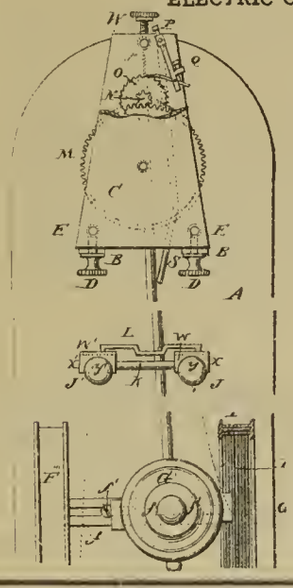
99,319, CHARLES HOWARD.
HORSE HAY-RAKES.



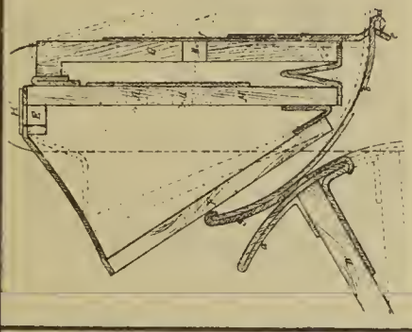
99,320, J. E. JONES. ELASTIC LANYARDS.



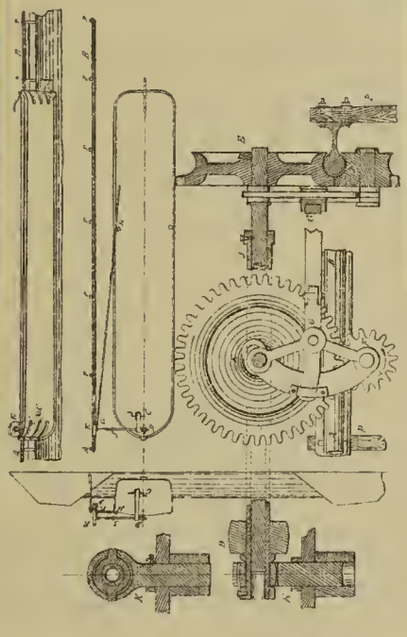
99,321. SAMUEL A. KENNEDY.
ELECTRIC CLOCKS.



99,322. M. J. KERIGAN.
BLOWING APPARATUS FOR ORGANS.

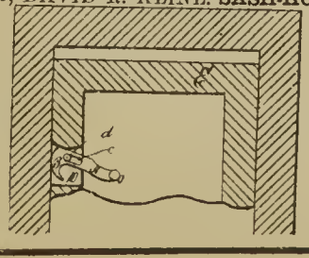


99,323, W. R. KING. MACHINE FOR MOVING BOATS ON CANALS.

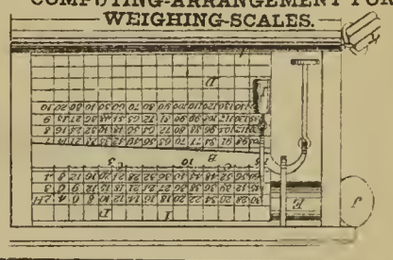


99,324. WM. P. KIRKLAND.
COMPOSITION FOR THE MANUFACTURE OF WATER, GAS, AND DRAIN-PIPES.

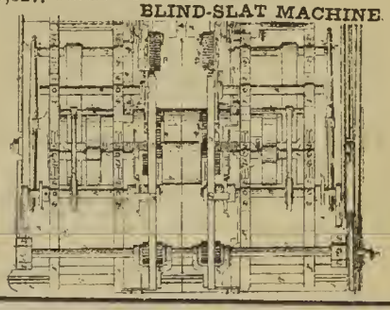
99,325, DAVID R. KLINE. SASH-HOLDER.



99,326, H. D. LATHROP.
ALBERT GAY.
COMPUTING-ARRANGEMENT FOR WEIGHING-SCALES.



99,327, FRANCOIS LECLERE.
BLIND-SLAT MACHINE.



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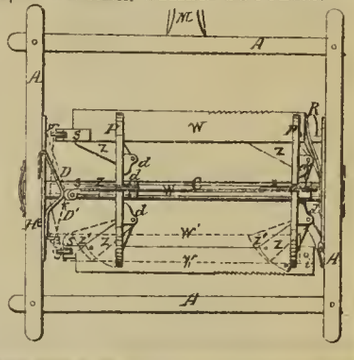
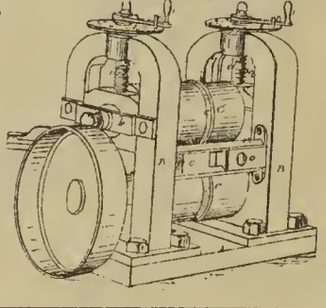
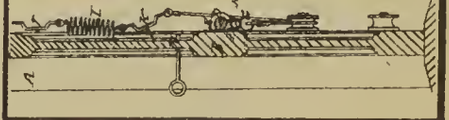


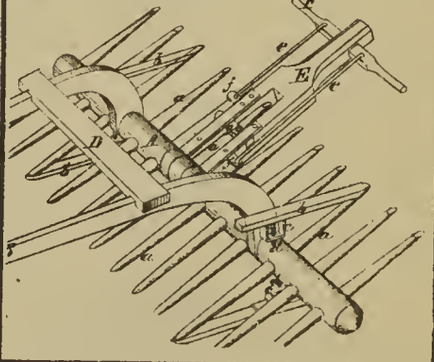
99,329, W. S. LEVAKE.
ROLLING-MILL FOR ROLLING GROOVED METAL ARCHES.



99,330, JACOB LEVY. BOLTS FOR DOORS.

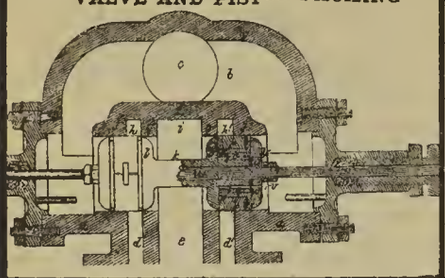


99,331, WILLIAM H. LONG.
HORSE HAY-RAKES.

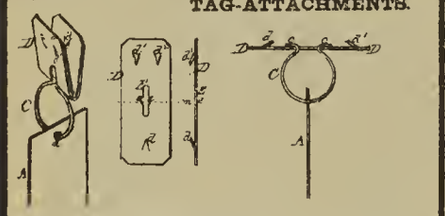


99,332, ROBERT LOVE.
COMPOSITION FOR PAINT.

99,333, JOSEPH MARKS.
VALVE AND PISTON-PACKING

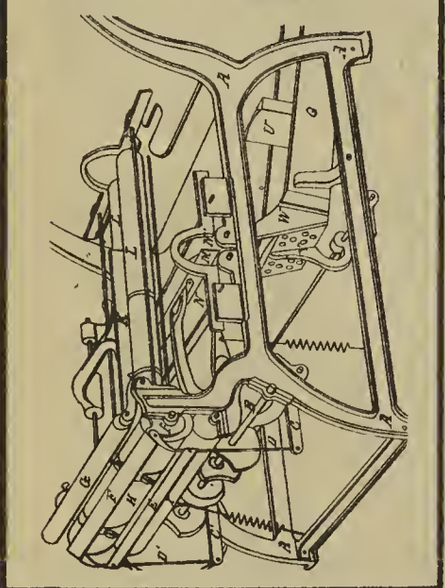


99,334 T. P. MARSTON.
TAG-ATTACHMENTS.

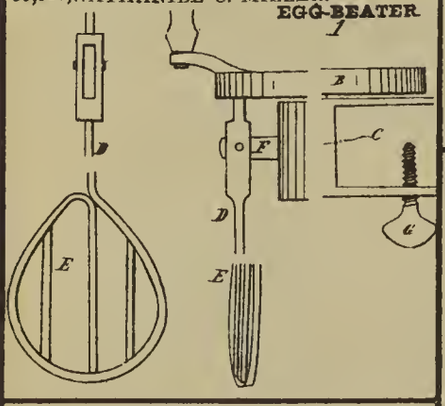


99,335, JACOB McCLURE.
PENCIL-SHARPENERS

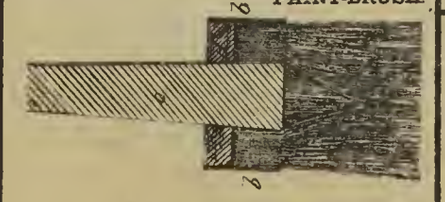
99,336. W. MENDHAM.
PAPER FOLDING MACHINE.



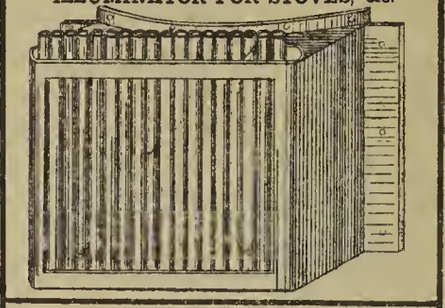
99,337, NATHANIEL C. MILLER.
EGG-BEATER.



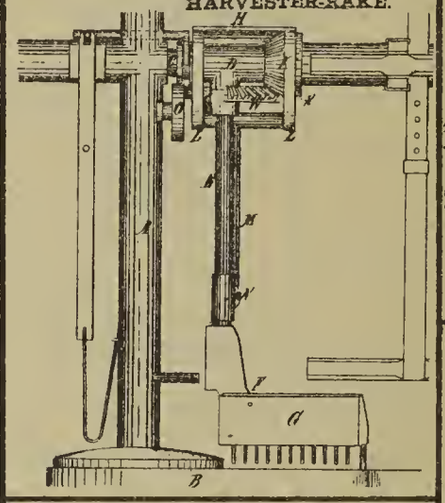
99,338, GEORGE G. MORRIS.
PAINT-BRUSH.



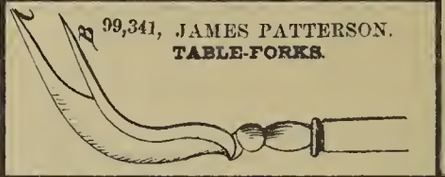
99,339, BENJAMIN NOTT.
ILLUMINATOR FOR STOVES, &c.



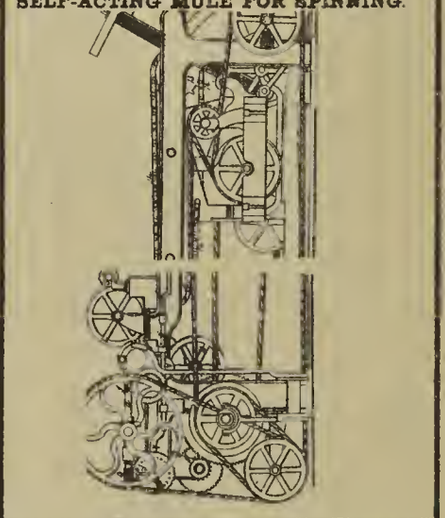
AARON PALMER.
99,340, CHAS. W. PALMER.
HARVESTER-RAKE.



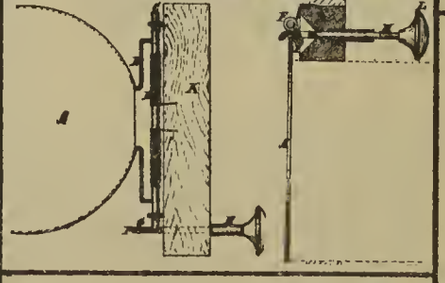
99,341, JAMES PATTERSON.
TABLE-FORKS.



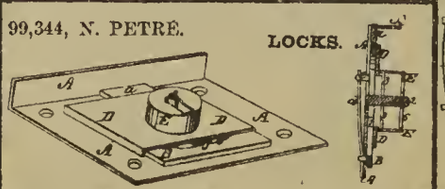
99,342, SETH D. PAUL.
SELF-ACTING MULE FOR SPINNING.



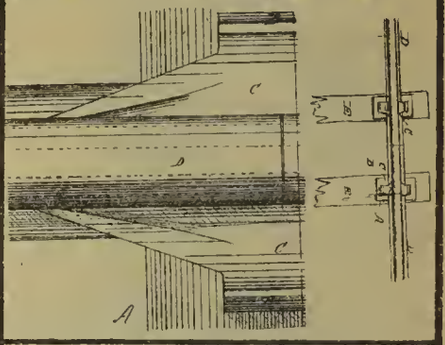
99,343, F. PEABODY. **CAMERA-SCREENS.**



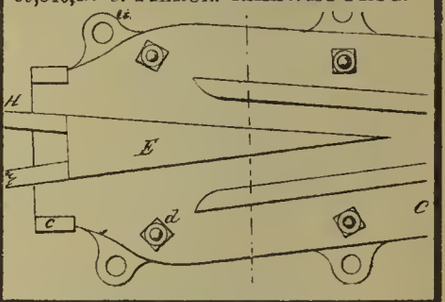
99,344, N. PETRÉ. **LOCKS.**



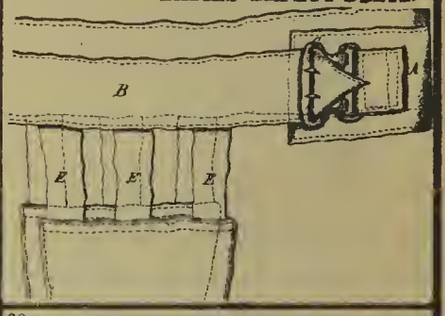
99,345. D. C. PIERCE.
RAILWAY CHAIR AND FISH JOINT.



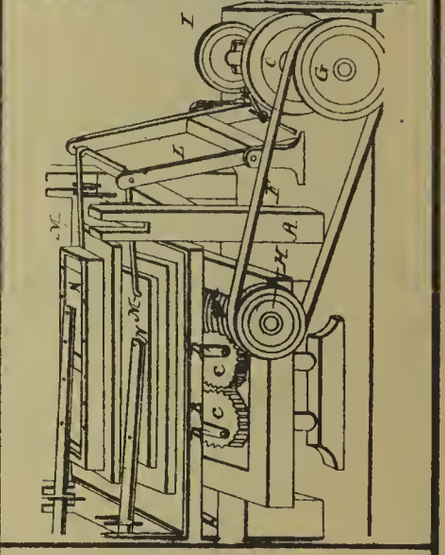
99,346, D. C. PIERCE. **RAILWAY-FROG.**



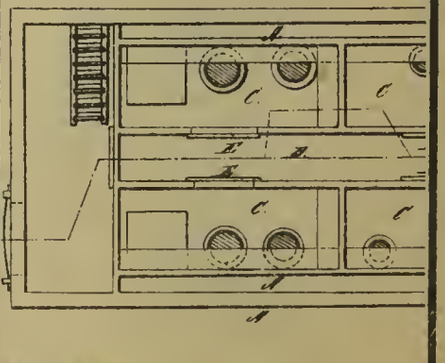
99,347, MARY G. PORTER.
LADIES' SAFETY-BELTS.



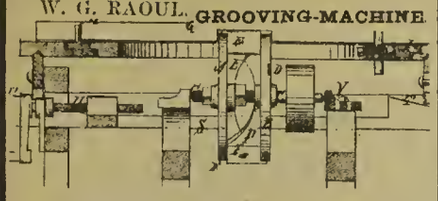
99,348, EDWIN PRICE.
E. B. PRICE.
MACHINE FOR POLISHING MARBLE.



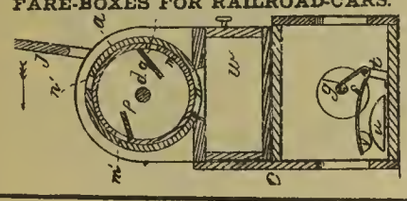
99,349, JESSE PRIOR.
FRUIT-PRESERVING HOUSE.



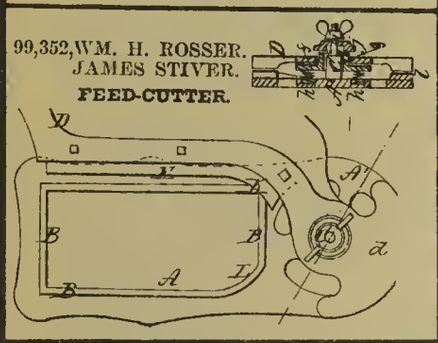
99,350.
W. G. RAOUL. GROOVING-MACHINE.



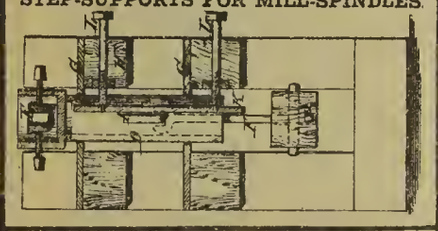
99,351, W. G. RAOUL.
FARE-BOXES FOR RAILROAD-CARS.



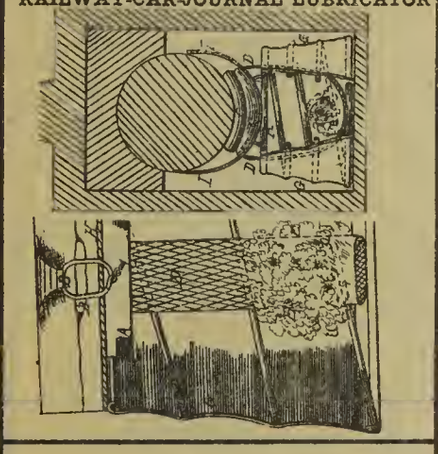
99,352, WM. H. ROSSER.
JAMES STIVER.
FEED-CUTTER.



99,353, JOHN RUSSELL.
STEP-SUPPORTS FOR MILL-SPINDLES.

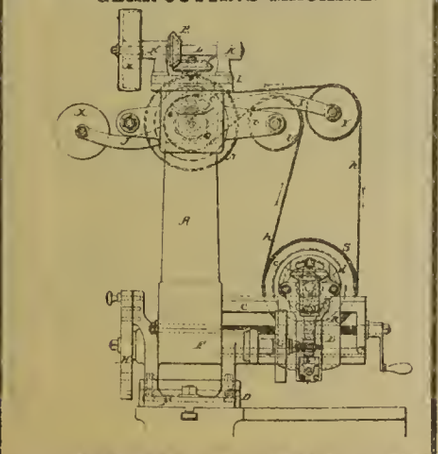


99,354, THOS. SAYLES.
RAILWAY-CAR-JOURNAL LUBRICATOR.

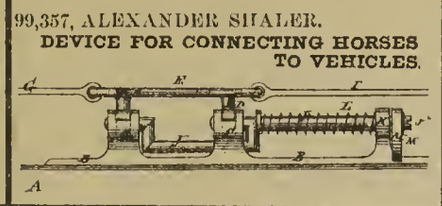


99,355, GUSTAVE SCHLUETER.
COMPOSITIONS FOR MOULDING FROM PLASTER OF PARIS.

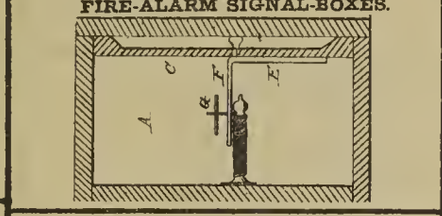
99,356, WM. SELLERS.
GEAR-CUTTING MACHINE.



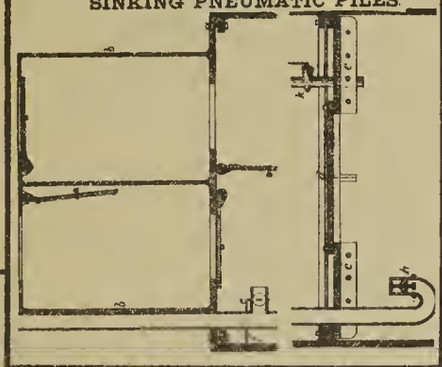
99,357, ALEXANDER SHALER.
DEVICE FOR CONNECTING HORSES TO VEHICLES.



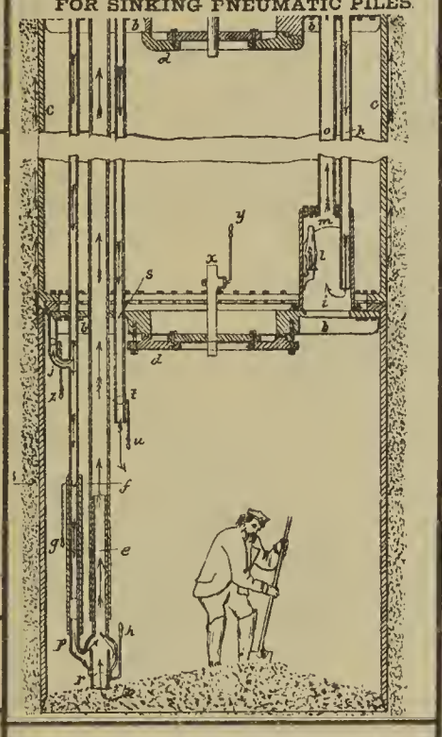
99,358, GEO. W. SHAWK.
FIRE-ALARM SIGNAL-BOXES.



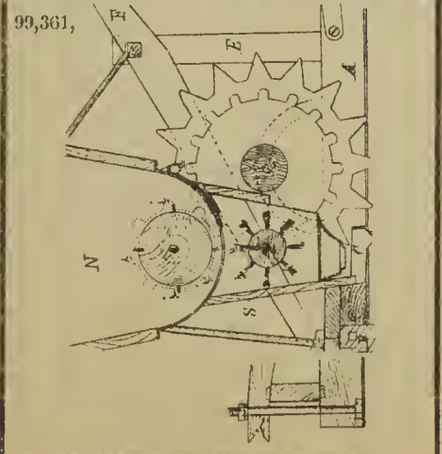
99,359, T. E. SICKELS. APPARATUS FOR SINKING PNEUMATIC PILES.



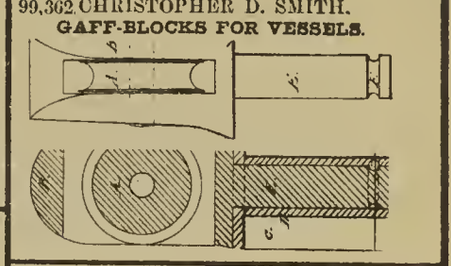
99,360, T. E. SICKELS. APPARATUS FOR SINKING PNEUMATIC PILES.



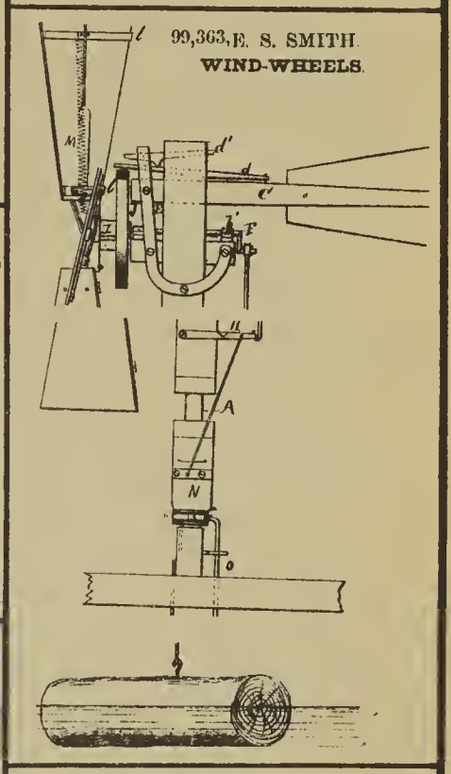
BRYAN SMITH. COTTON-SEED PLANTER.
99,361,



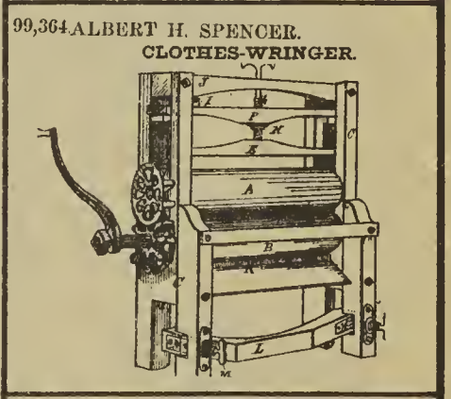
99,362, CHRISTOPHER D. SMITH.
GAFF-BLOCKS FOR VESSELS.



99,363, E. S. SMITH.
WIND-WHEELS.

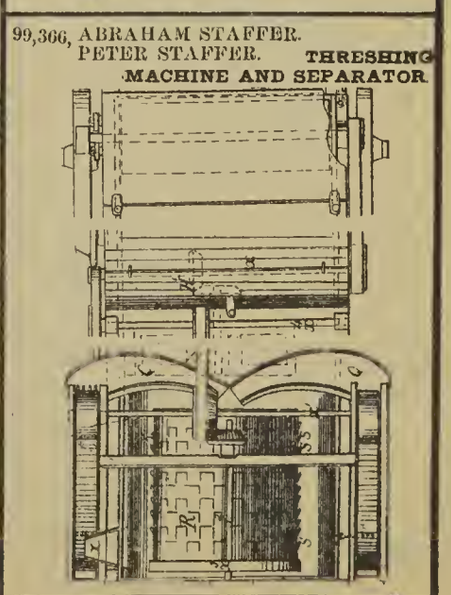


99,364, ALBERT H. SPENCER.
CLOTHES-WRINGER.



JOHN A. SPOONER. 99,365.
JOHN ELLERBY.
BUTTONS.

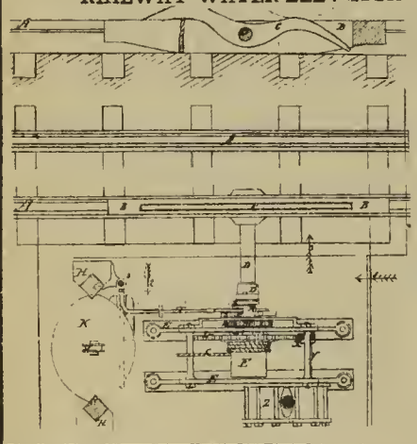
99,366, ABRAHAM STAFFER.
PETER STAFFER.
THRESHING MACHINE AND SEPARATOR.



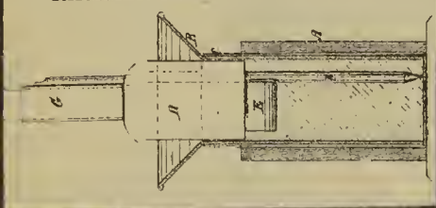
99,367, DAVID STEWART.
MANUFACTURE OF IRON.

99,368, DAVID STEWART
MANUFACTURE OF IRON

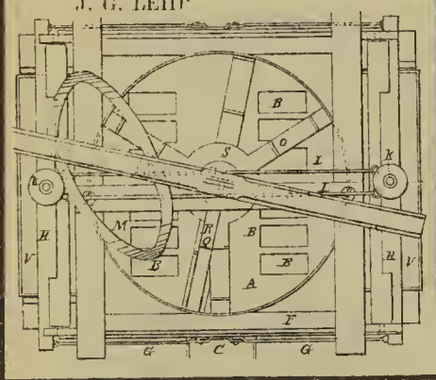
99,369, ARTHUR A. STIVENDER.
RAILWAY WATER-ELEVATOR



99,370, JNO. REID SUTTON.
RAMMER FOR PACKING TOBACCO.

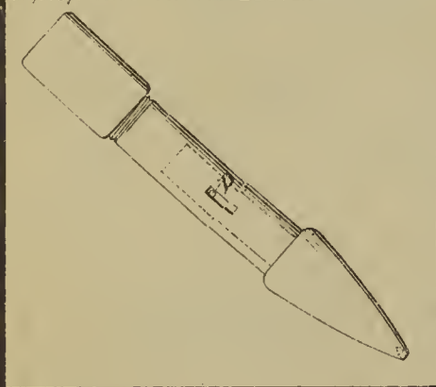


99,371, H. D. THORP, J. G. LEHP. BRICK-MACHINES.



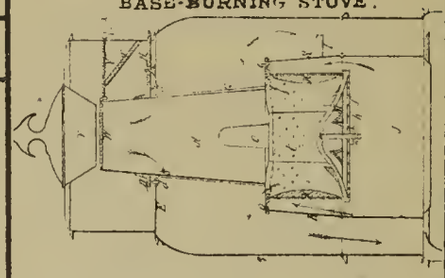
99,372, JOHN H. TROWBRIDGE.
MACHINE FOR PACKING TOBACCO

99,373, ISAAC TRUMP. DRIVEN WELLS.

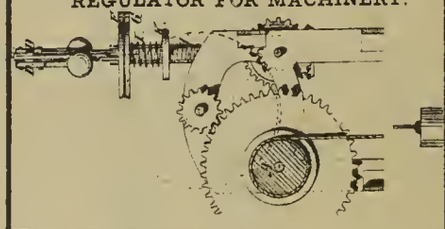


99,374, B. W. TUTTLE. WATER-WHEELS.

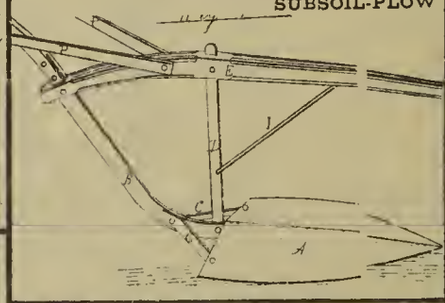
99,375, HENRY B. VAN BENTHUYSEN.
BASE-BURNING STOVE.



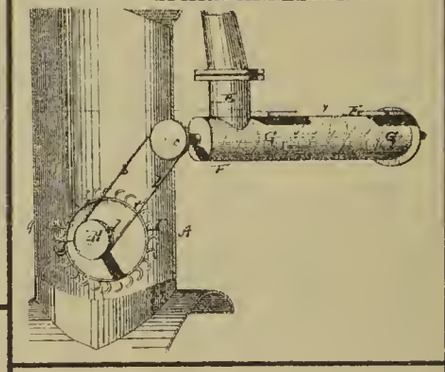
99,376, THEODORE C. VAN WYCK.
WILLIAM KENT.
REGULATOR FOR MACHINERY.



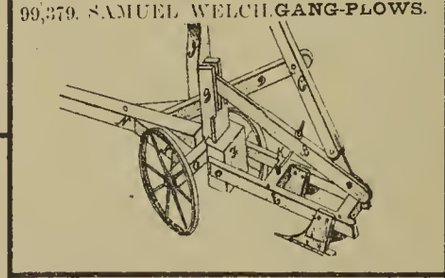
99,377, WILLIAM WATKINS.
SUBSOIL-PLOW



99,378, EDWARD WAUD.
SPARK-ARRESTERS.

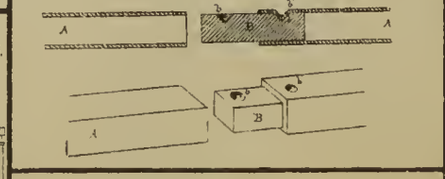


99,379, SAMUEL WELCH. GANG-PLOWS.



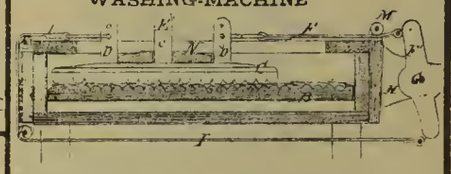
99,380, MRS. MARY W. WELTY.
SHIELD FOR SEWING-MACHINES.

99,381, J. D. WEST. LIGHTNING-RODS.

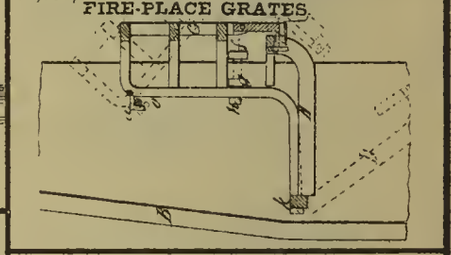


99,382, EZRA B. WESTFALL.
RAILROAD SIGNAL-BOXES.

99,383, LINTON WHARTON.
WASHING-MACHINE

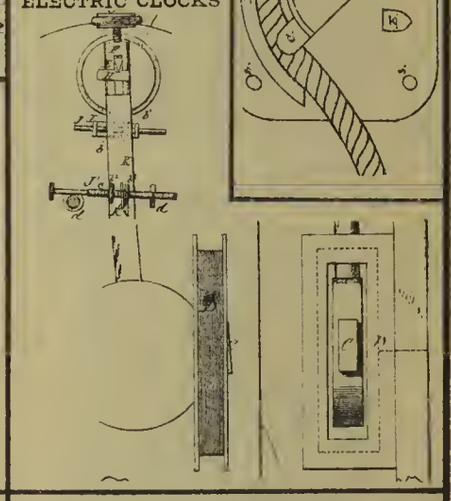


99,384, WILLIAM E. WHITEHURST.
FIRE-PLACE GRATES.



99,385, GEO. W. WILBAR.
CLOTHES-LINE CLAMP.

99,386, ELISHA WILSON.
ELECTRIC CLOCKS

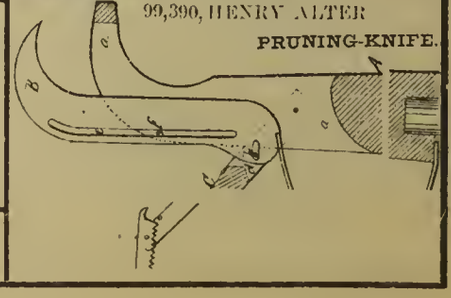


99,387, GEO. W. ADLER. COMPOUND FOR BATING AND RAISING HIDES.

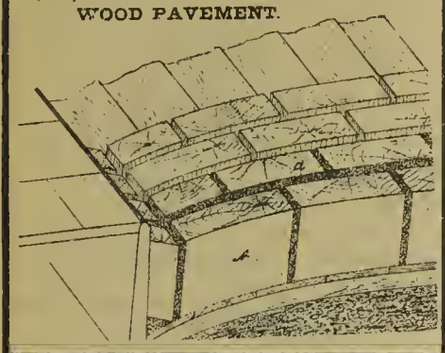
99,388, ISAAC ALBRIGHT, JR.
JOEL Y. BLOGMINGDALE
WAGON-TONGUE SUPPORTS.

99,389, A. M. ALLEN. AUTOMATIC TOY.

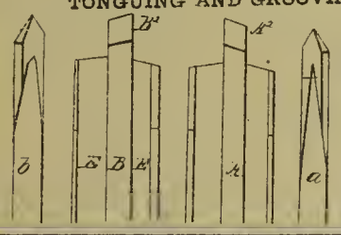
99,390, HENRY ALTER
PRUNING-KNIFE.



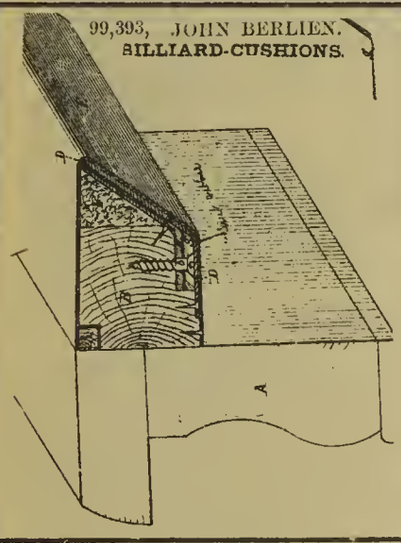
99,391, WILLIAM W. BALLARD.
WOOD PAVEMENT.



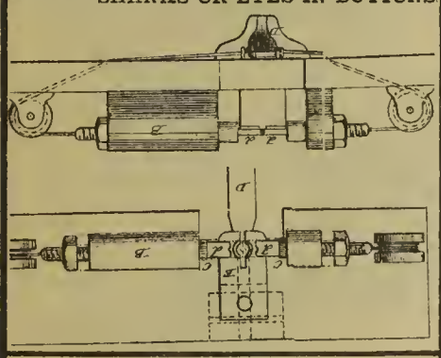
99,392, E. F. BEUGLER. TOOLS FOR TONGUING AND GROOVING.



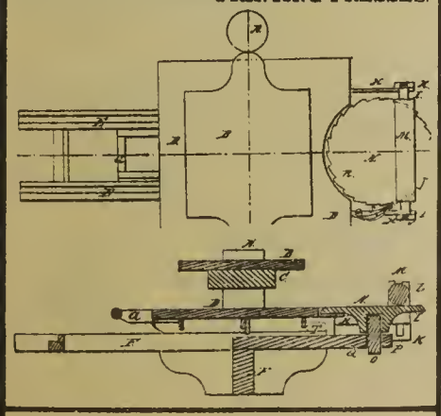
99,393, JOHN BERLIEN.
BILLIARD-CUSHIONS.



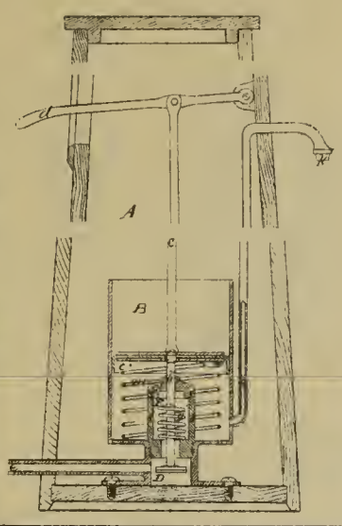
99,394, WILLIAM H. BLAKE.
APPARATUS FOR CENTRING SHANKS OR EYES IN BUTTONS.



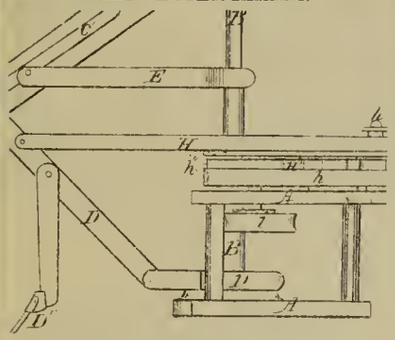
99,395, T. W. BRACHER.
PRINTING-PRESSES.



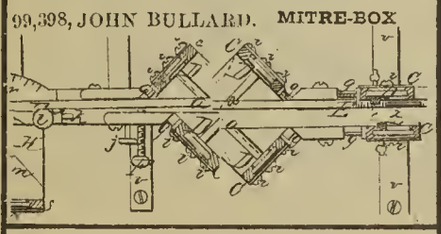
99,396, TIMOTHY C. BRIDE. HYDRANTS.



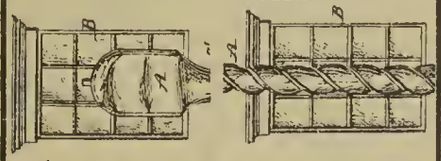
99,397 CYRUS BUCKWALTER.
HARVESTER-RAKES.



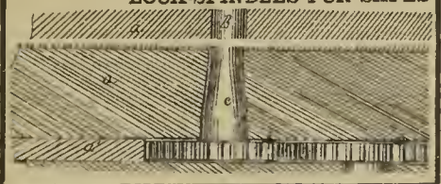
99,398, JOHN BULLARD. MITRE-BOX



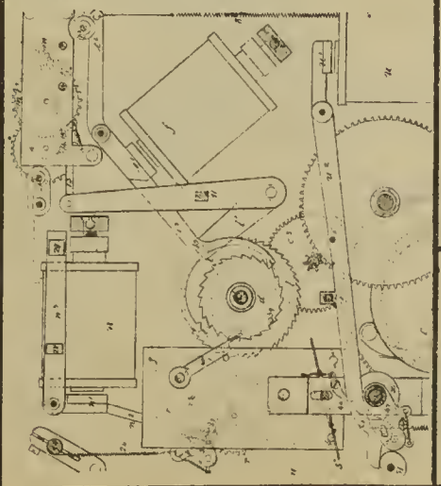
99,399, WILLIAM BURDITT FIRE-ESCAPE.
GEORGE H. BURDITT.



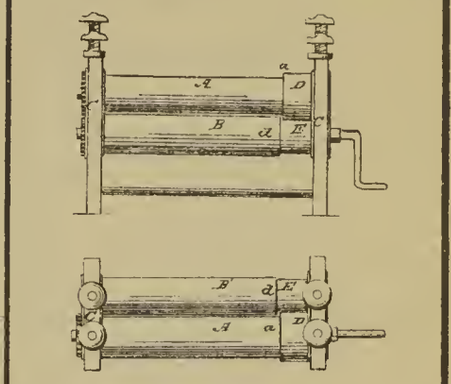
99,400, A. G. BURTON.
LOCK-SPINDLES FOR SAFES



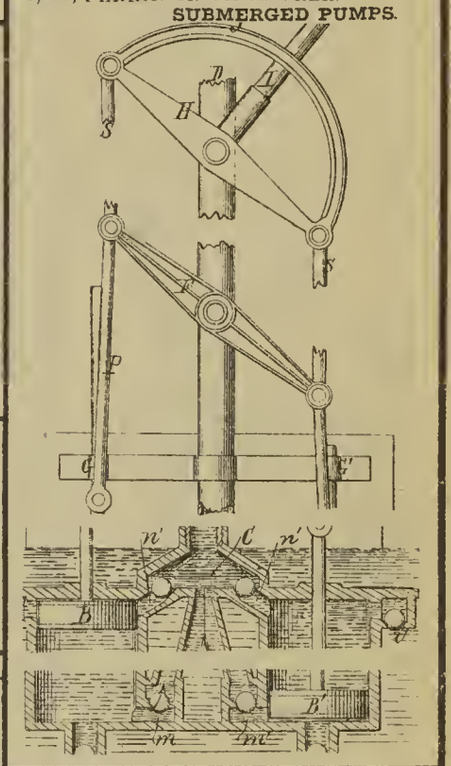
99,401. E. A. CALLAHAN.
PRINTING TELEGRAPH.



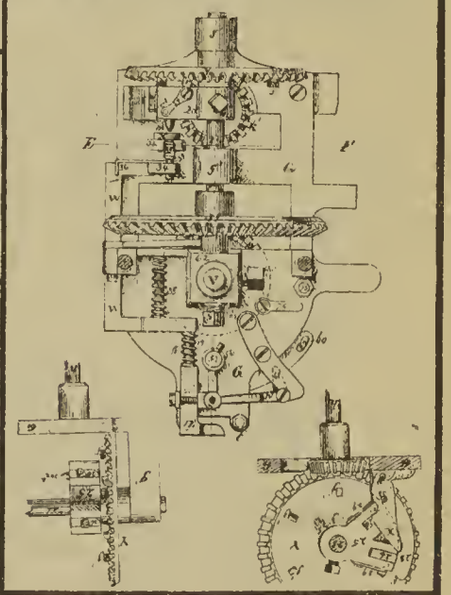
99,402, M. M. CAMP. MACHINE FOR FORMING SHEET-METAL TUBING.



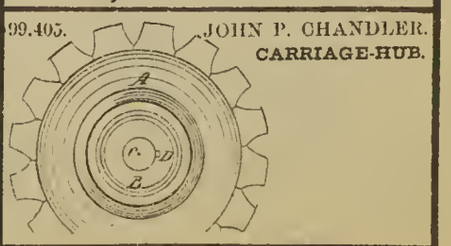
99,403, PERRIN H. CARDWELL.
SUBMERGED PUMPS.



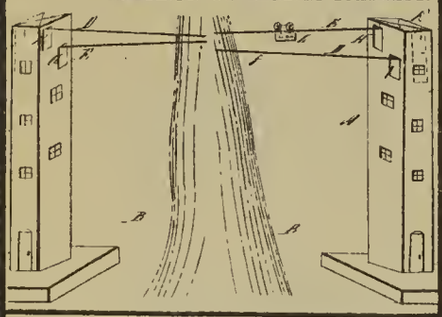
99,404. G. W. CHANDLER.
APPARATUS FOR BINDING GRAIN.



99,405. JOHN P. CHANDLER.
CARRIAGE-HUB.



99,406, ROBT. A. CHESEBROUGH.
METHOD OF ÆRIAL TRANSIT.



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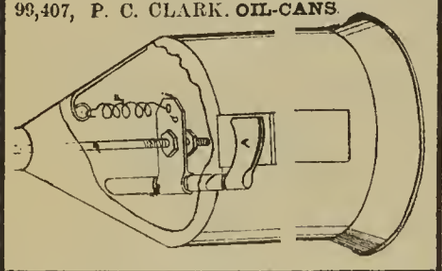
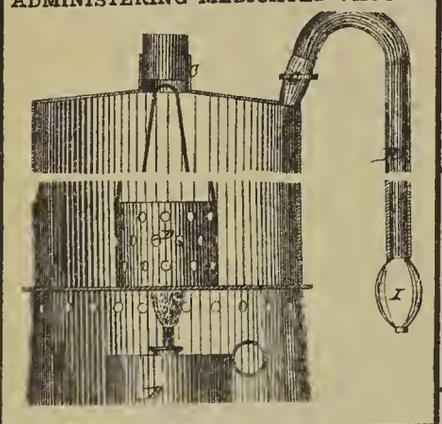
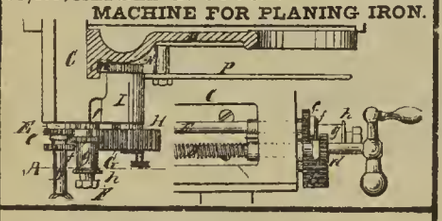


99,408, J. C. COOK. APPARATUS FOR ADMINISTERING MEDICATED VAPORS.



99,409, ALFRED B. COUCH.
MACHINE FOR PLANING IRON.



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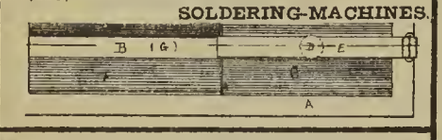
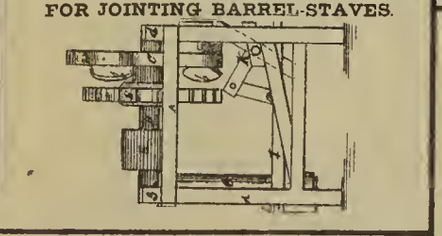
SOLDERING-MACHINES.

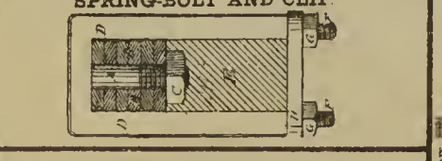


99,411 HARRY A. CROSSLEY. MACHINE FOR JOINTING BARREL-STAVES.

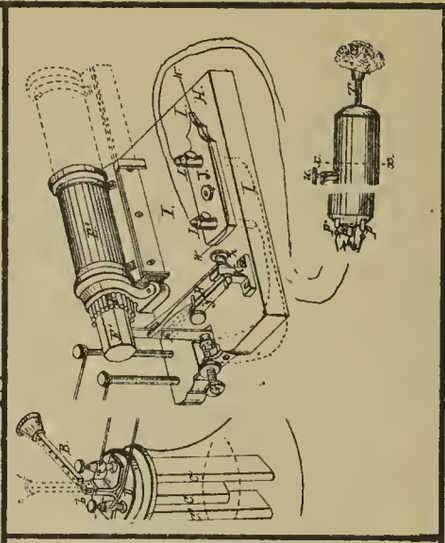


99,412, FREDERICK CURTIS.
WATER-PROOF STOCKING.

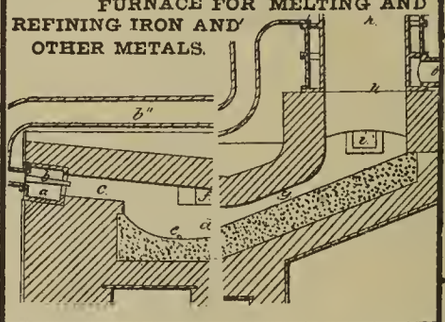
99,413 JOHN DEERLE
SPRING-BOLT AND CLIP.



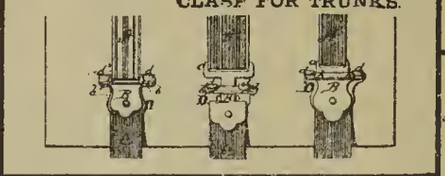
99,414, LUIS DRESCHER.
ELECTRO-MAGNETIC MACHINES FOR MEDICAL PURPOSES.



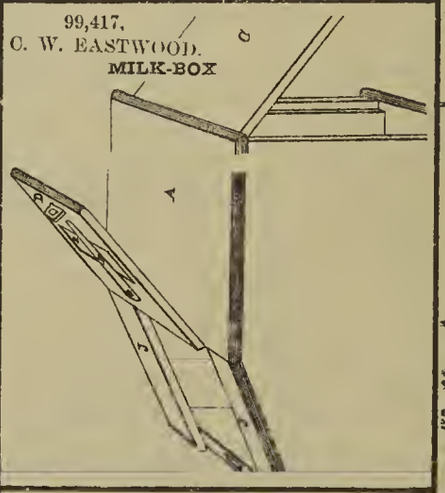
99,415 ADOLPH FABER DU FAUR.
FURNACE FOR MELTING AND REFINING IRON AND OTHER METALS.



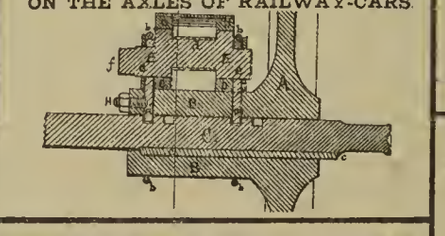
99,416 THEODORE R. DUNHAM.
CLASP FOR TRUNKS.



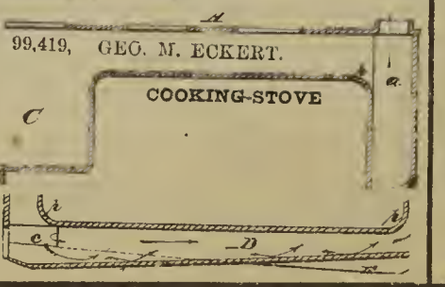
99,417,
C. W. EASTWOOD.
MILK-BOX



99,418, RICHARD EATON.
ADJUSTMENT OF WHEELS ON THE AXLES OF RAILWAY-CARS.

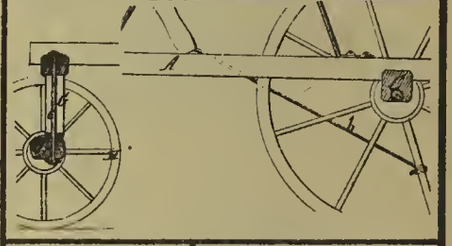


99,419, GEO. M. ECKERT.
COOKING-STOVE

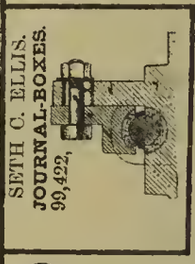


99,420, R. G. ELDER.
HANDLE FOR CHILDREN'S CARRIAGES.

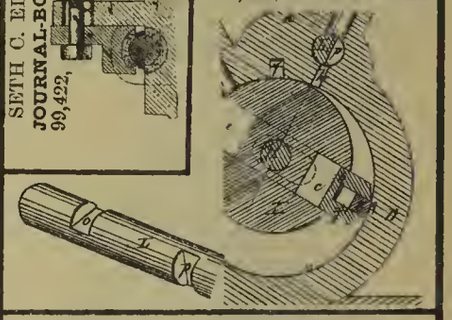
99,421, R. G. ELDER.
FOUR-WHEEL PROPELLER.



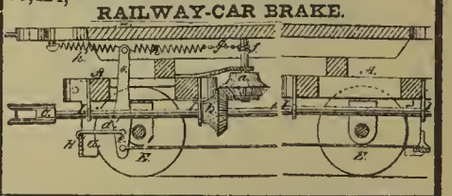
SETH C. ELLIS.
JOURNAL-BOXES.
99,422,



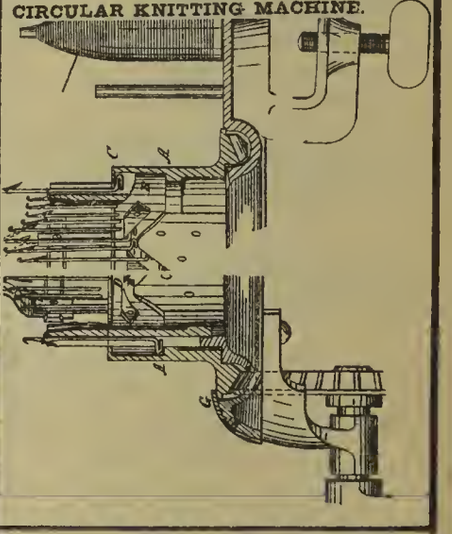
W FITZGERALD.
VALVES OF ROTARY ENGINES.
99,423,



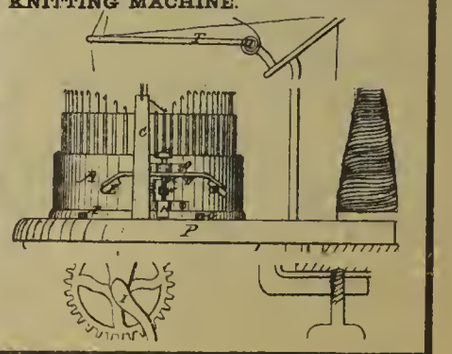
99,424, WILLIAM G. FOSTER.
RAILWAY-CAR BRAKE.



99,425. W. FRANZ AND W. POPE.
CIRCULAR KNITTING MACHINE.

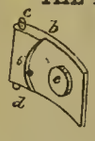


99,426. W. FRANZ AND W. POPE.
KNITTING MACHINE.

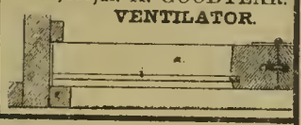


99,427, WILLIAM FREUDENAU. MANUFACTURE OF FLOUR.

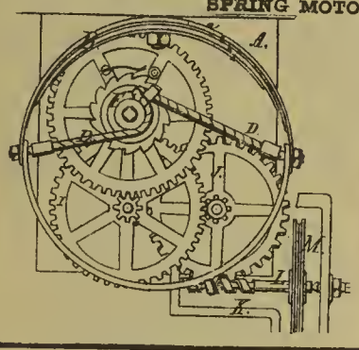
99,428, C. D. P. GIBSON. ATTACHING THE MAIN-SPRING OF WATCHES.



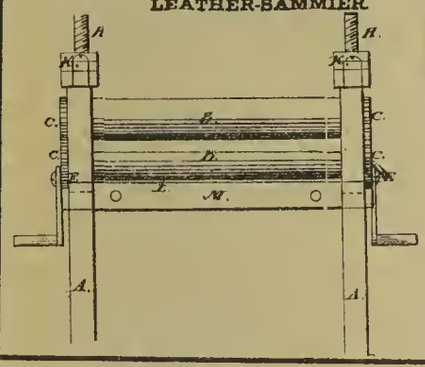
99,429, R. A. GOODYEAR. VENTILATOR.



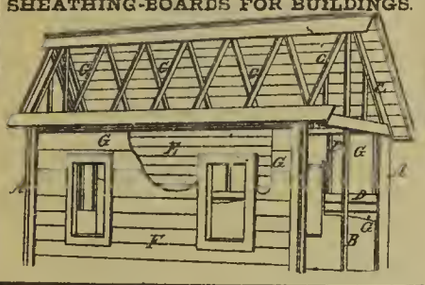
99,430, RICHARD GRIMM. SPRING MOTOR.



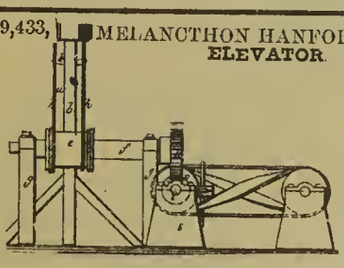
99,431, D. C. GUTTRIDGE. LEATHER-SAMMIER.



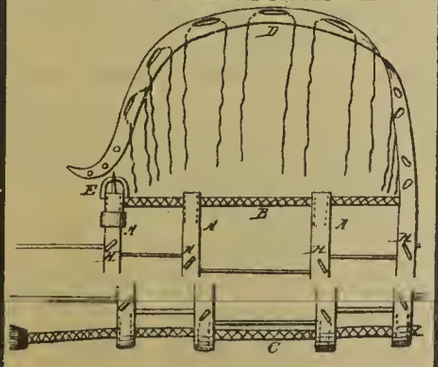
99,432, W. E. HALE. SHEATHING-BOARDS FOR BUILDINGS.



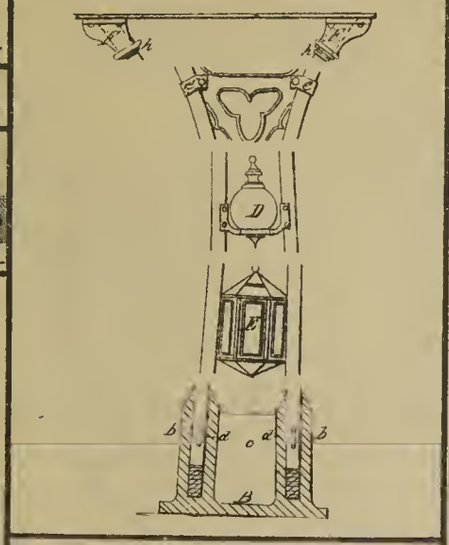
99,433, MELANCTHON HANFORD. ELEVATOR.



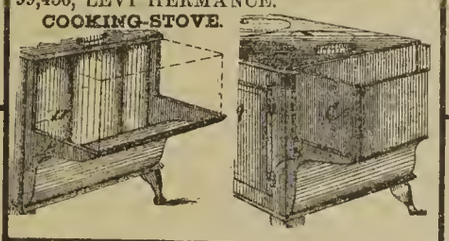
99,434, J. M. HARMAN. FLY-NETS FOR HORSES.



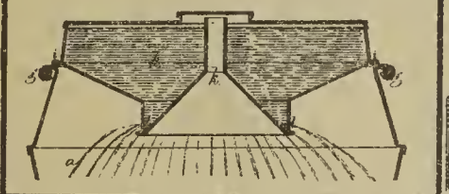
99,435, CHARLES T. HARVEY. SUPPORTING-COLUMN FOR ELEVATED RAILWAYS.



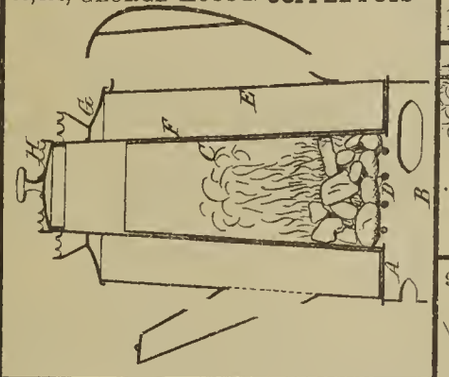
99,436, LEVI HERMANCE. COOKING-STOVE.



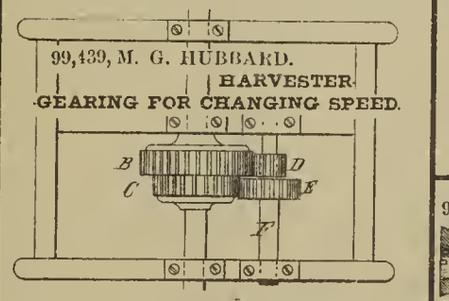
99,437, GEORGE A. HIGGINS. CHAMBER-PAIL.



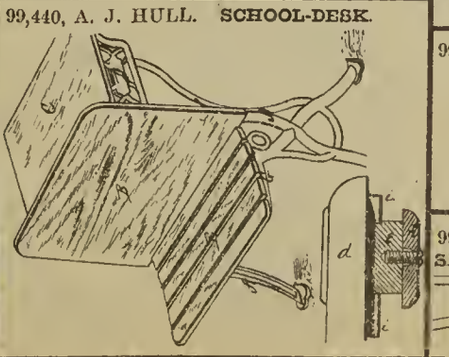
99,438, GEORGE HOTTE. COFFEE-POTS



99,439, M. G. HUBBARD. HARVESTER GEARING FOR CHANGING SPEED.



99,440, A. J. HULL. SCHOOL-DESK.



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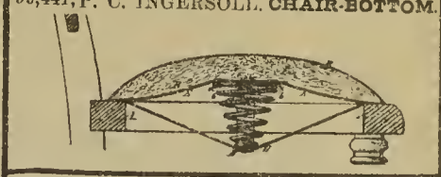
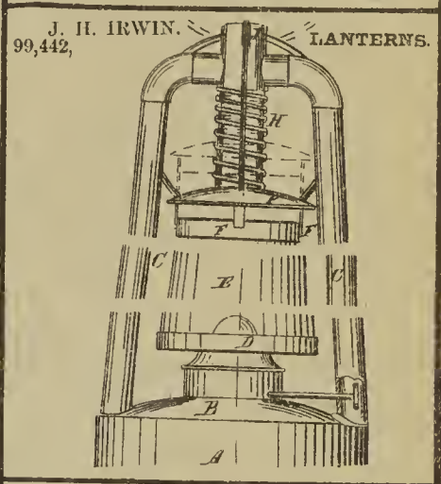
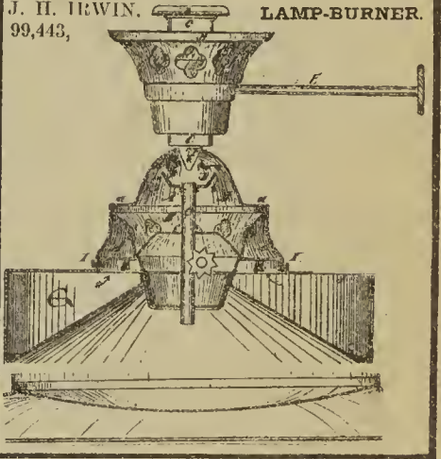


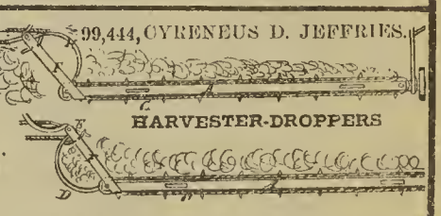
99,442, J. H. IRWIN. LANTERNS.



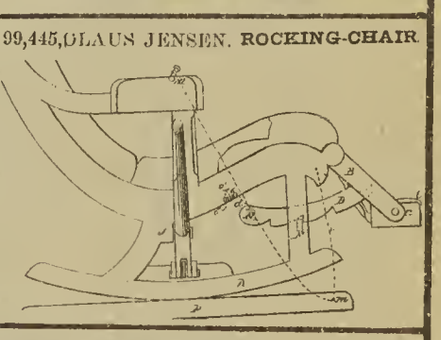
99,443, J. H. IRWIN. LAMP-BURNER.



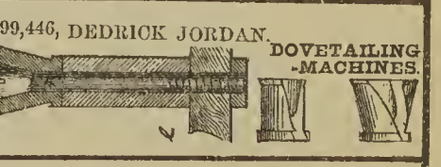
99,444, CYRENEUS D. JEFFRIES. HARVESTER-DROPPERS



99,445, OLAUS JENSEN. ROCKING-CHAIR.

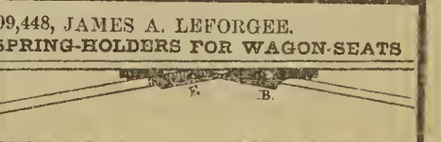


99,446, DEDRICK JORDAN. DOVETAILING-MACHINES.



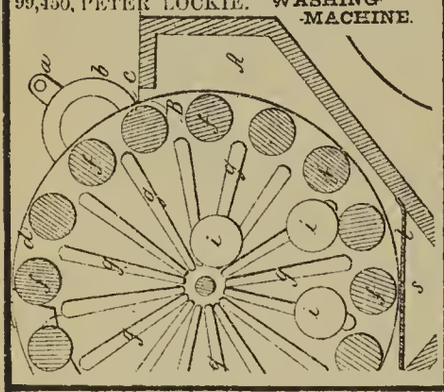
99,447, ISRAEL LANDIS. SADDLE-TREES.

99,448, JAMES A. LEFORGEE. SPRING-HOLDERS FOR WAGON-SEATS

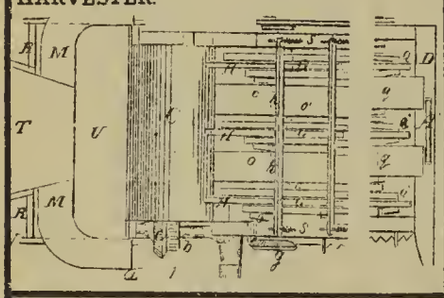


99,449, JAMES E. LOBDELL.
LEROY H. SMITH. HAY-FORKS.

99,450, PETER LOCKIE. WASHING-MACHINE.

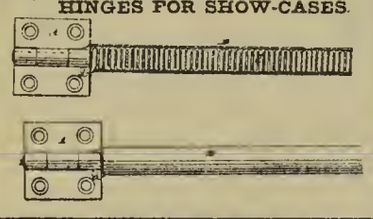


99,451. W. R. LOW AND A. ADAMS.
HARVESTER.

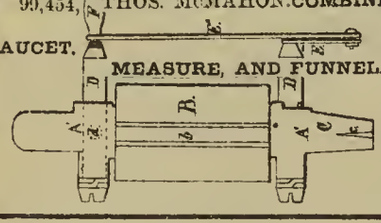


99,452, ORAZIO LUGO.
FERTILIZERS, OR FISH-GUANO.

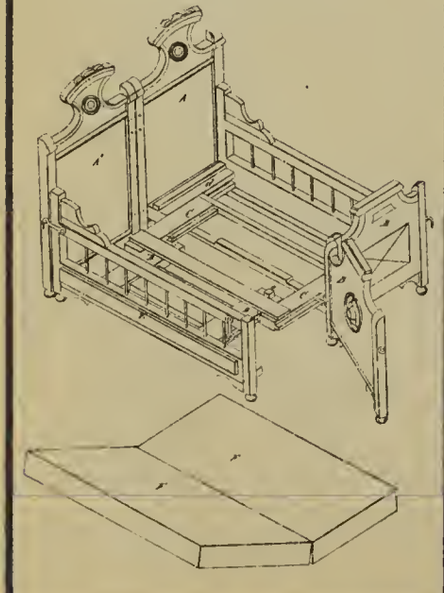
99,453, JOHN McADAMS.
HINGES FOR SHOW-CASES.



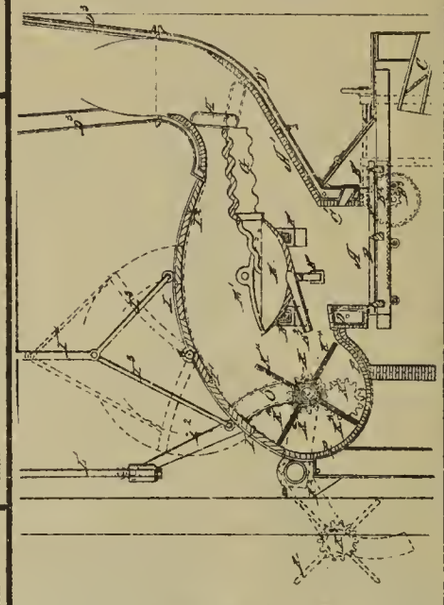
99,454, THOS. McMAHON. COMBINED FAUCET, MEASURE, AND FUNNEL.



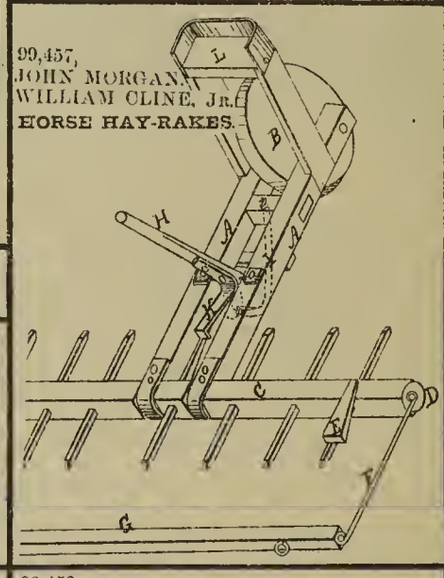
99,455, FREDRICK MENZER.
EXTENSION-BEDSTEAD.



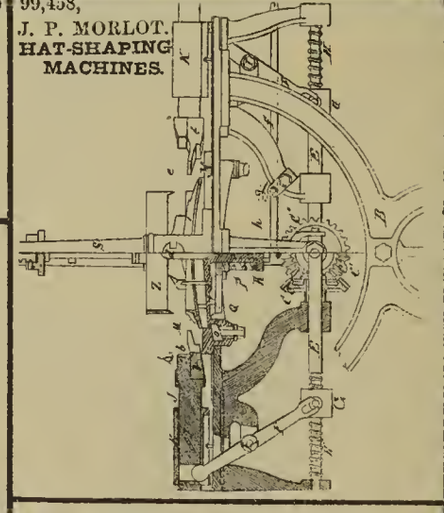
99,456. JAMES MONTGOMERY.
METALLURGIC FURNACE.



99,457,
JOHN MORGAN,
WILLIAM CLINE, Jr.
HORSE HAY-RAKES.



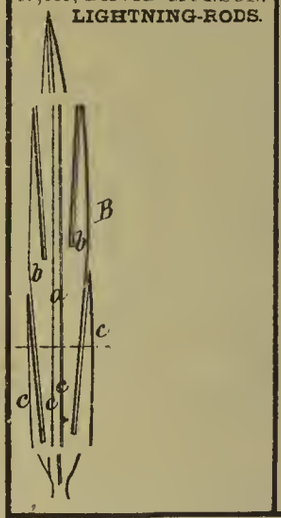
99,458,
J. P. MORLOT.
HAT-SHAPING MACHINES.



H. B. MORRISON. STOVE-PIPE JOINTS.
99,459,

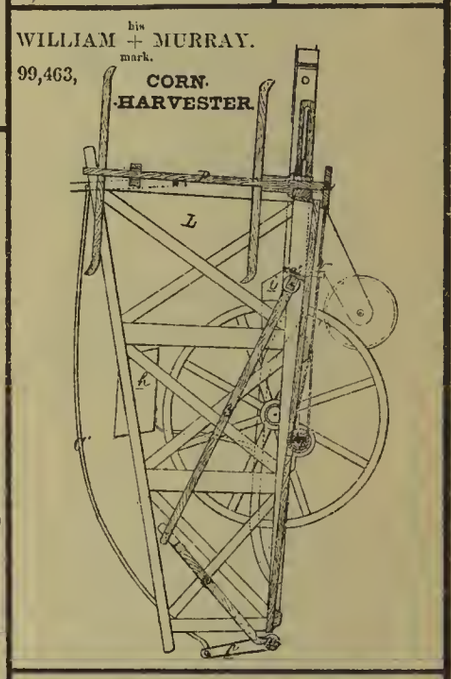
99,460, D. A. MULLANE.
J. O. L. MURRAY.
DEVICE FOR HOLDING TOGETHER THE DIFFERENT PARTS OF BUREAUS AND OTHER ARTICLES OF FURNITURE.

99,461, DAVID MUNSON.
LIGHTNING-RODS.



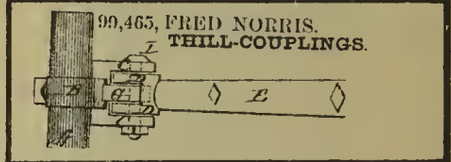
99,462, PETER MURPHY.
PHOTOGRAPHIC-PRINTING FRAMES.

WILLIAM his + mark. MURRAY.
99,463, CORN-HARVESTER.

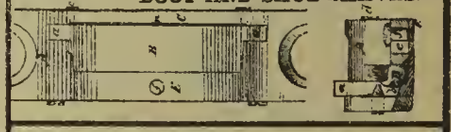


99,464, J. NEWTON.
IRA BARFIELD. MEDICAL COMPOUND FOR CURE OF DROPSY.

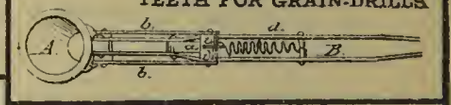
99,465, FRED NORRIS.
THILL-COUPLINGS.



99,466, SUMNER PACKARD.
BOOT AND SHOE-SHAVES.

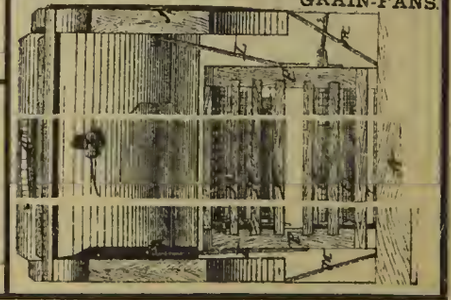


99,467, C. E. PATRIC.
TEETH FOR GRAIN-DRILLS.

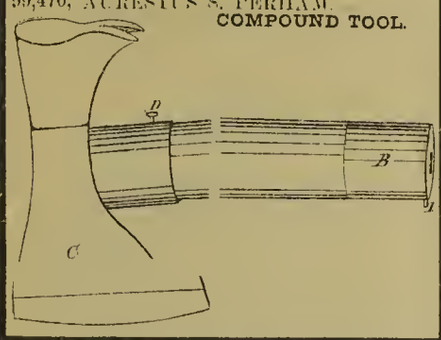


99,468, HENRY A. PEASE.
MANUFACTURE OF SOAP.

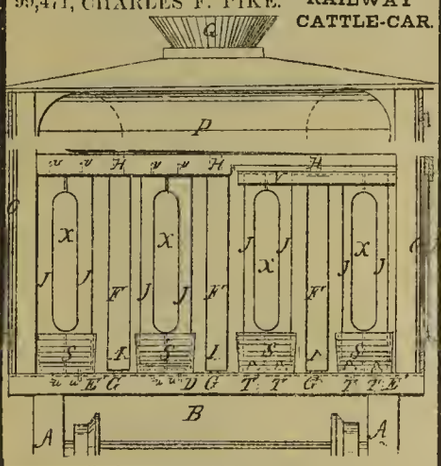
99,469, ISAAC PENNINGTON. GRAIN-FANS.



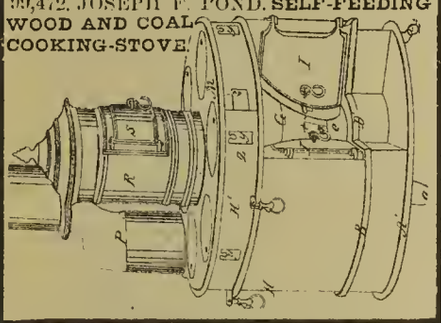
99,470, AURESTUS S. PERHAM. COMPOUND TOOL.



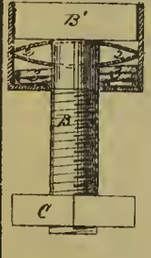
99,471, CHARLES F. PIKE. RAILWAY CATTLE-CAR.



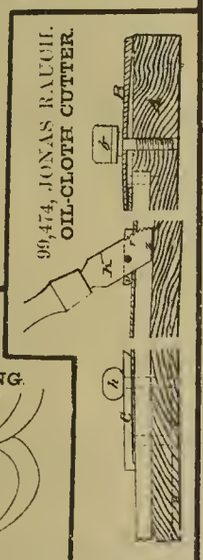
99,472, JOSEPH F. POND. SELF-FEEDING WOOD AND COAL COOKING-STOVE.



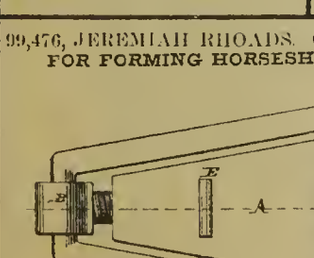
99,473, DANIEL R. PRATT. SPRING-HEADED SCREW-BOLT.



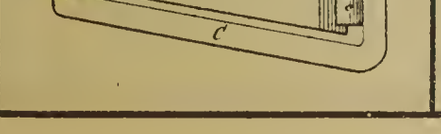
99,474, JONAS RAUCH. OIL-CLOTH CUTTER.



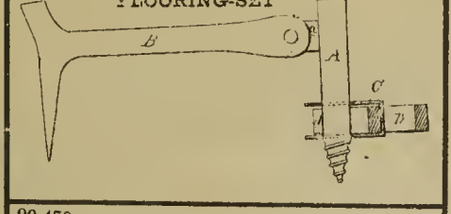
99,475, F. W. RHINELANDER. RAILWAY-CAR SPRING.



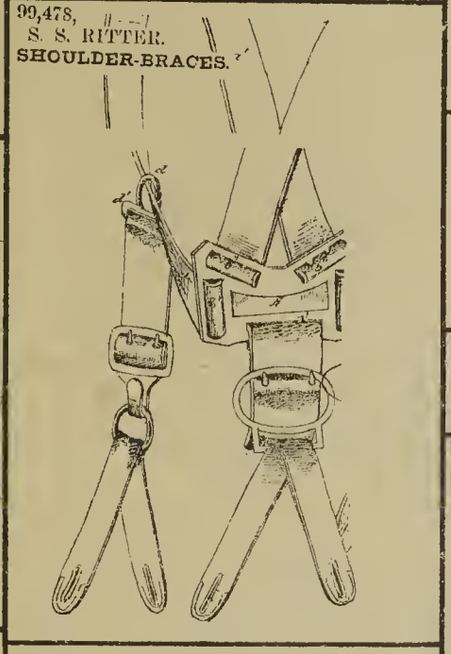
99,476, JEREMIAH RHOADS. CLAMP FOR FORMING HORSESHOE-CALKS



99,477, T. M. RICHARDSON. FLOORING-SET



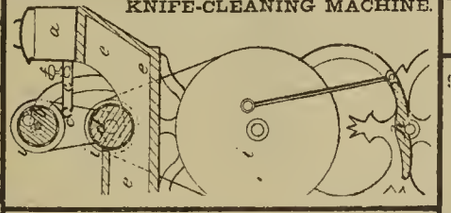
99,478, S. S. RITTER. SHOULDER-BRACES.



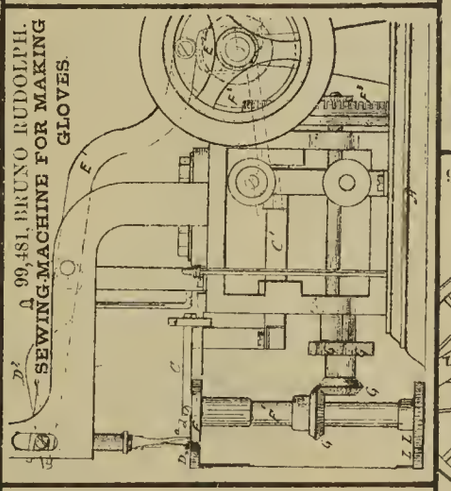
99,479. E. ROBBINS.

DECORATIVE SLAB FORMED FROM PLASTIC MATERIALS.

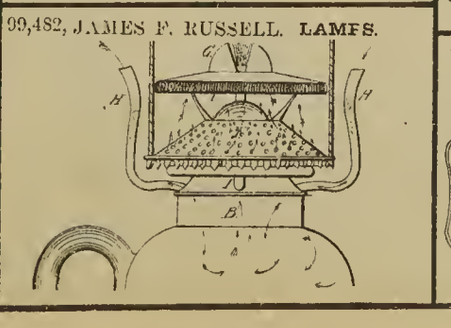
99,480, THOMAS ROBERTS. KNIFE-CLEANING MACHINE.



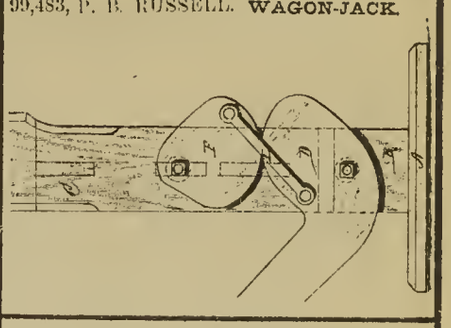
99,481, BRUNO RUDOLPH. SEWING-MACHINE FOR MAKING GLOVES.



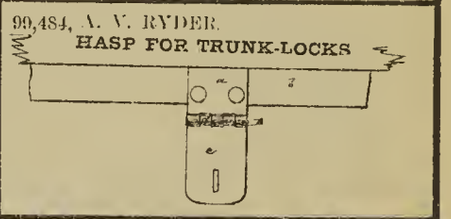
99,482, JAMES F. RUSSELL. LAMPS.



99,483, P. B. RUSSELL. WAGON-JACK.

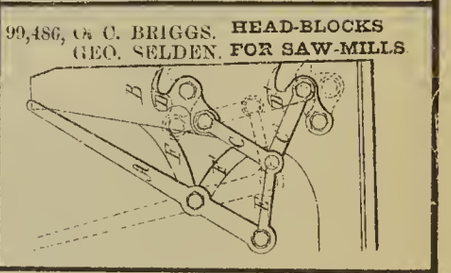


99,484, A. V. RYDER. HASP FOR TRUNK-LOCKS



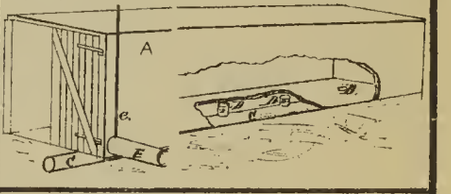
99,485, JUNIUS SCHENCK. METHOD OF PROTECTING THE ENDS OF VULCANIZED INDIA-RUBBER OR COMBINATION HOSE.

99,486, O. C. BRIGGS, GEO. SELDEN. HEAD-BLOCKS FOR SAW-MILLS.

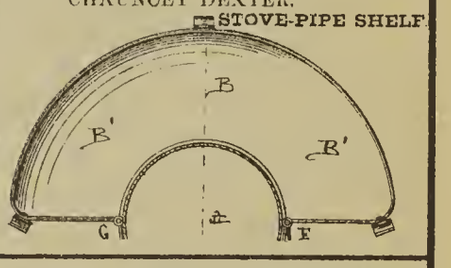


99,487, GIBSON SMITH. COMPOUND FOR COLORING AND PRESERVING THE HAIR.

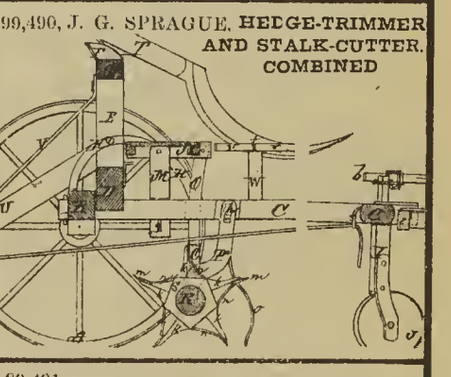
99,488, MARSHALL P. SMITH. DRIER.



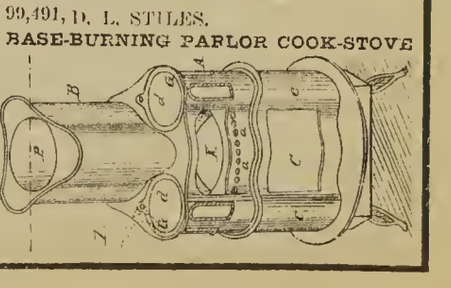
99,489, JOB SMYTHE, CHAUNCEY DEXTER. STOVE-PIPE SHELF.



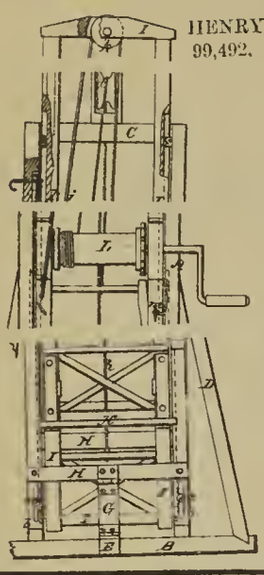
99,490, J. G. SPRAGUE. HEDGE-TRIMMER AND STALK-CUTTER, COMBINED.



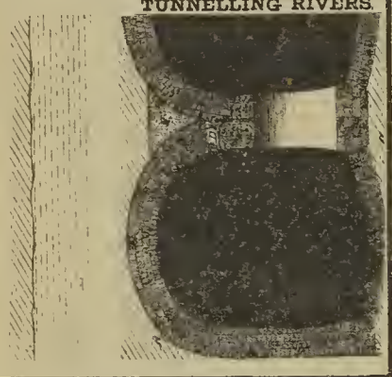
99,491, D. L. STILES. BASE-BURNING PARLOR COOK-STOVE.



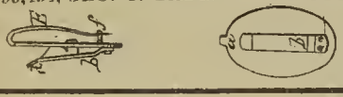
HENRY SWINEFORD.
99,492. **SCAFFOLDS.**



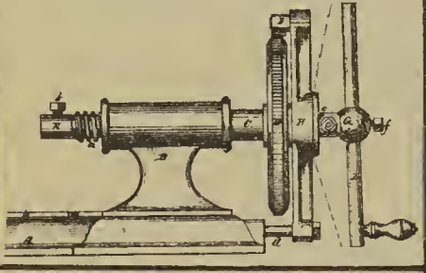
99,493. WILLM. SYKES.
TUNNELLING RIVERS.



99,494, GEO. C. TAFT. **TWINE-CUTTER**



99,495, GEO. C. TAFT.
MACHINE FOR DRILLING METALS.

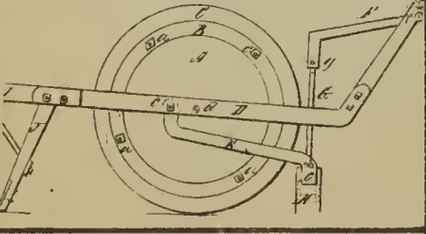


99,496, GEO. W. TALBOT.
DYES FOR COLORING WOOL.

99,497, THEODORE D. TEAL.
PAINT FOR SHIPS' BOTTOMS.

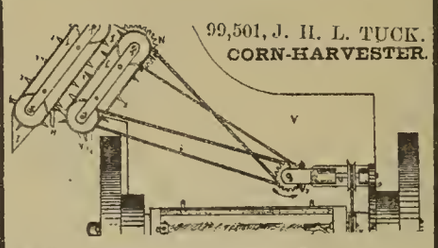
99,498, JOHN HENRY THOMAS.
SEED-SOWER.

99,499, T. T. THORNE,
G. T. THORNE, **COTTON-PLANTERS.**

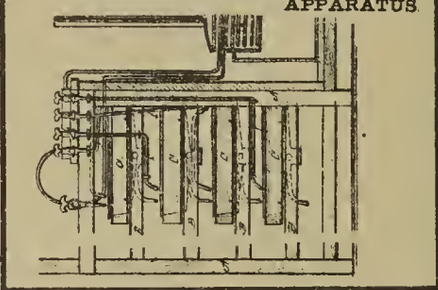


99,500, CHARLES TOPPAN.
MANUFACTURE OF OILS FROM PETROLEUM.

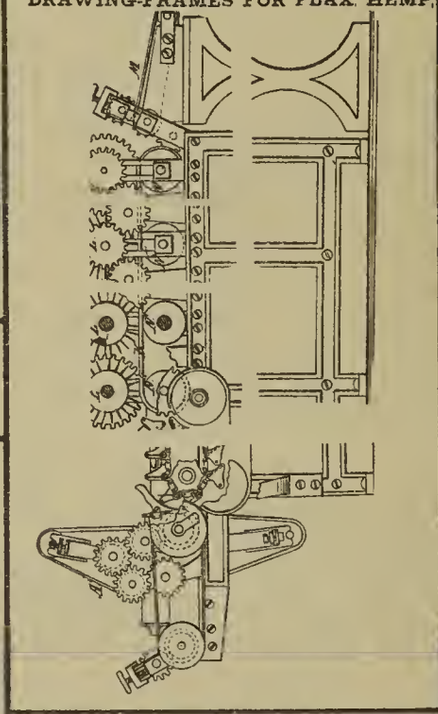
99,501, J. H. L. TUCK.
CORN-HARVESTER.



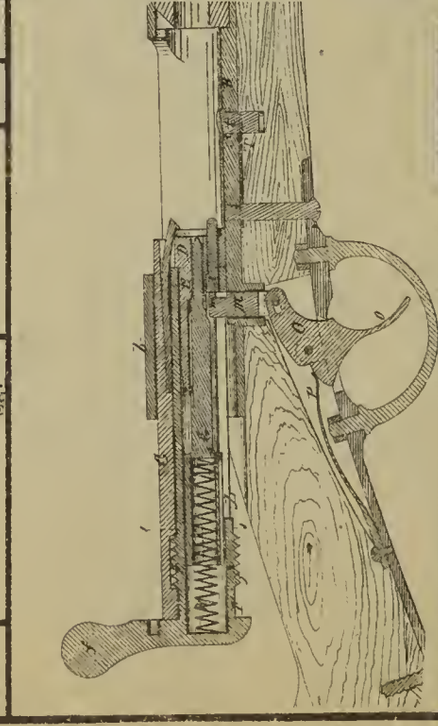
99,502, ICHABOD B. TUTTLE.
MILK-TEMPERING AND COOLING APPARATUS.



99,503, CHARLES WALL.
JOHN STEWART.
DRAWING-FRAMES FOR FLAX, HEMP,

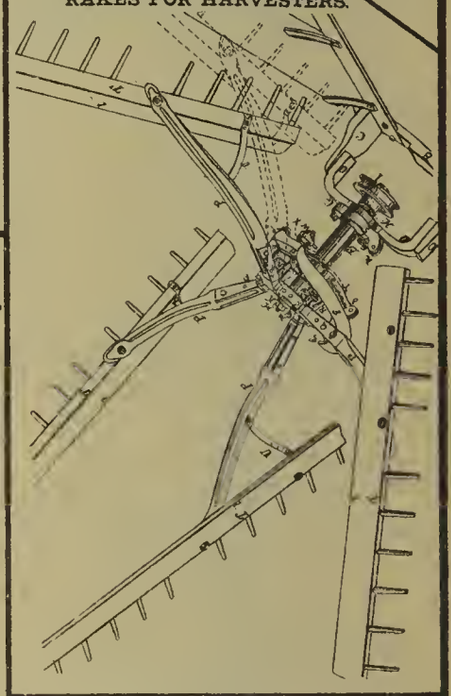


99,504, W. G. WARD.
BREECH-LOADING FIRE-ARMS.

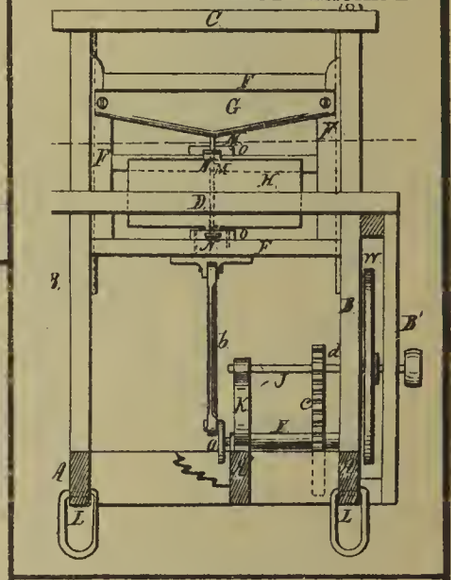


99,505, ROLLIN WHITE.
REVOLVING FIRE-ARMS.

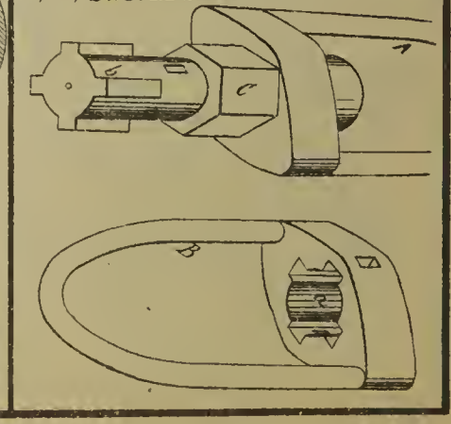
99,506, WM. N. WHITELEY.
RAKES FOR HARVESTERS.



99,507, DUNHAM WILKES.
SHINGLE-MACHINE.



WILLIAM WILLIAMS.
99,508, **SWIVEL-SHACKLE.**



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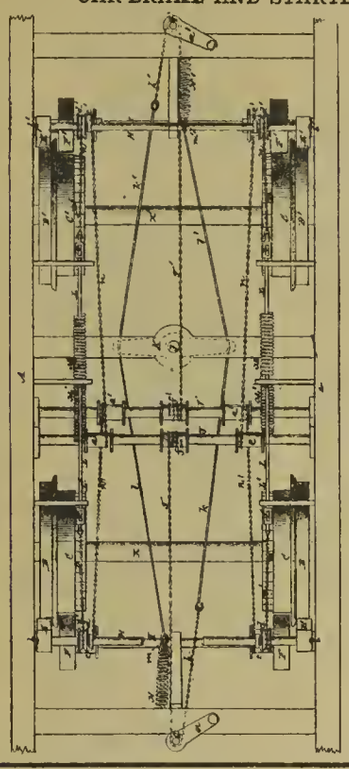
CAR-BRAKE AND STARTER.



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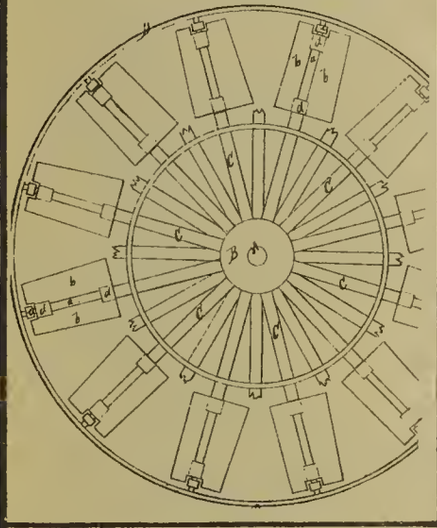

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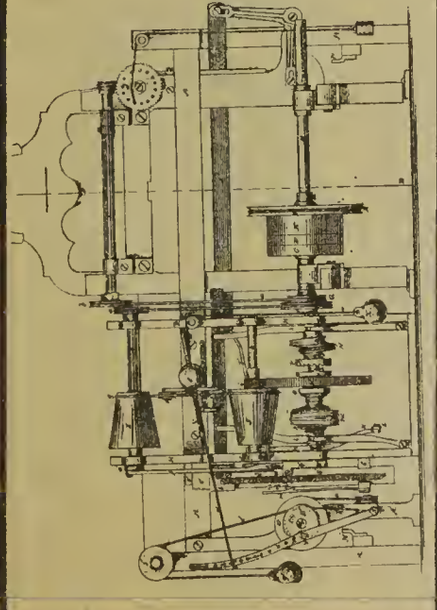
SELF-ACTING MULES FOR SPINNING.



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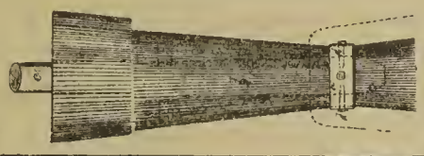
BROOM FOR STABLES.



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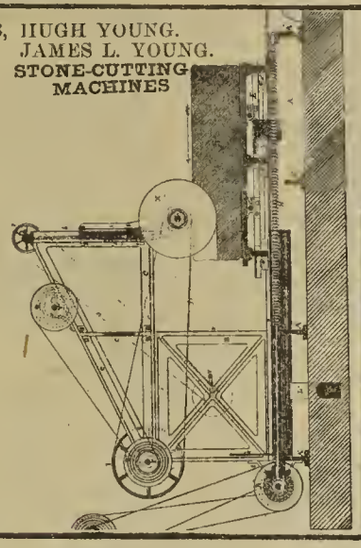
JAMES L. YOUNG.
STONE-CUTTING MACHINES



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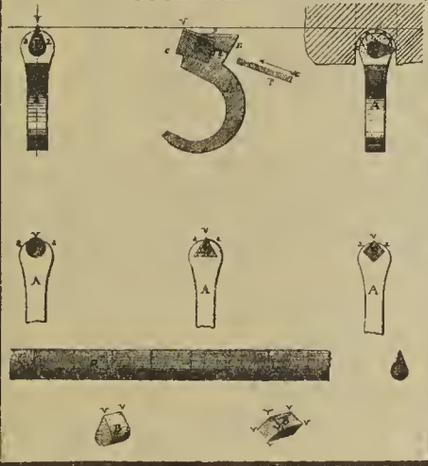
TOOL FOR CUTTING STONE.



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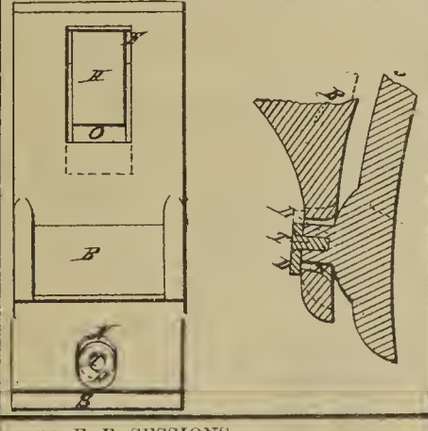

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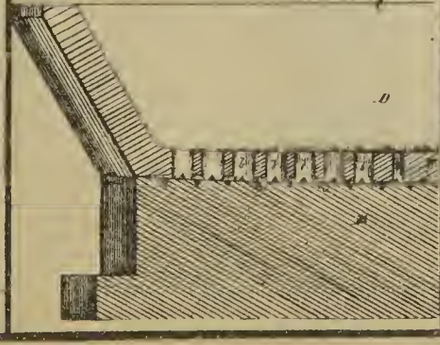
SAMUEL A. KNOX.
MOULD-BOARD FOR PLOWS.



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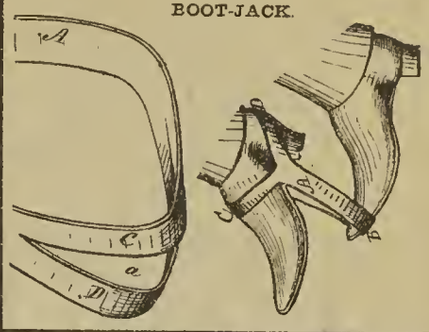

3,813, D. R. AVERILL.
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3,814, D. R. AVERILL.
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3,815, ESEK BUSSEY.
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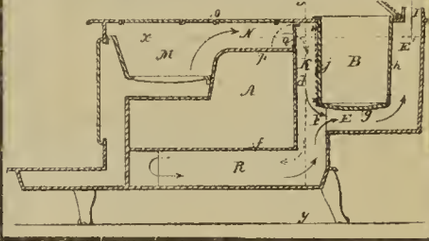
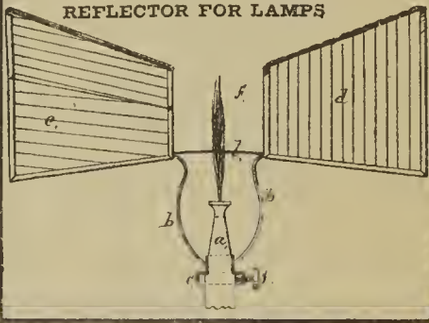


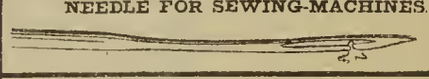
3,816, N. C. RUSSELL.
TREATMENT OF LEATHER.

3,817, WM. G. SCHMIDLIN.
J. W. DRISCOLL.
REFLECTOR FOR LAMPS



3,818, MRS. HANNAH G. SUPLEE.
NEEDLE FOR SEWING-MACHINES.

3,819, HANNAH G. SUPLEE.
NEEDLE FOR SEWING-MACHINES.



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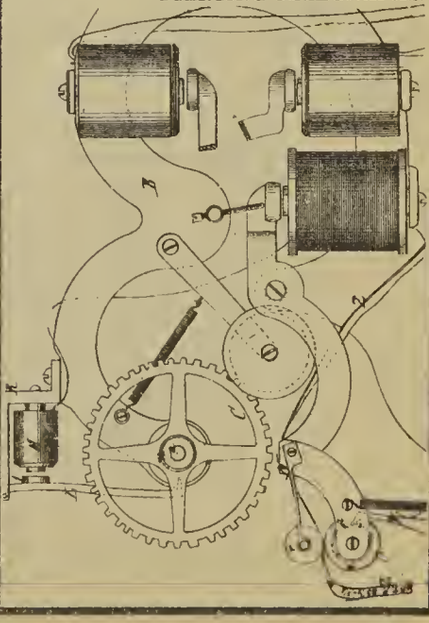

ILLUSTRATIONS OF PATENTS

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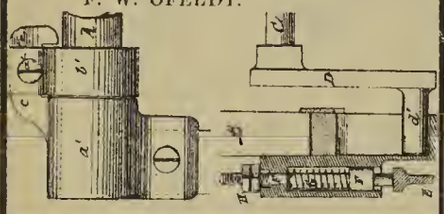
FEBRUARY 8, 1870.

99,518. A. W. ALMQVIST. F. W. OFELDT. **VALVE-GEAR.**



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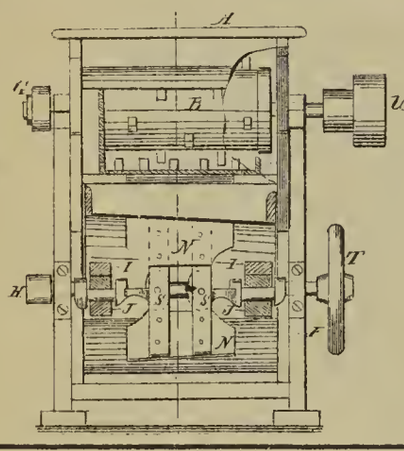
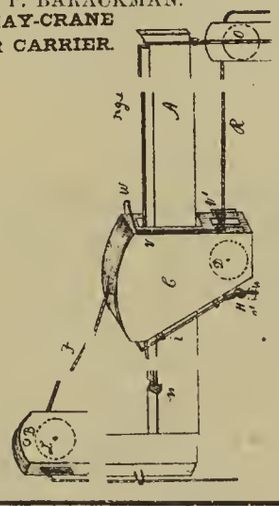
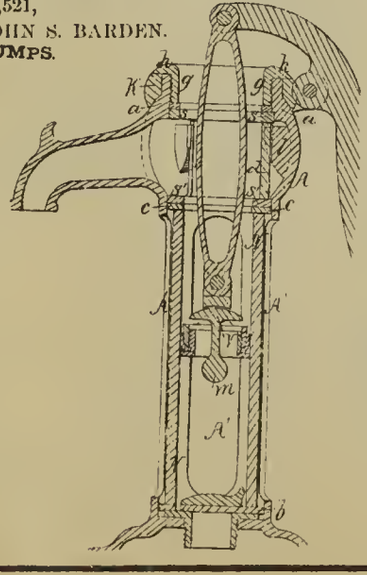


99,520, B. P. BARACKMAN. **HAY-CRANE OR CARRIER.**

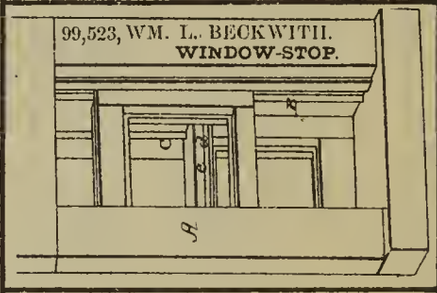


99,521, JOHN S. BARDEN. **PUMPS.**



99,522, WILLIAM BAUM. **FLOORING.**

99,523, WM. L. BECKWITH. **WINDOW-STOP.**



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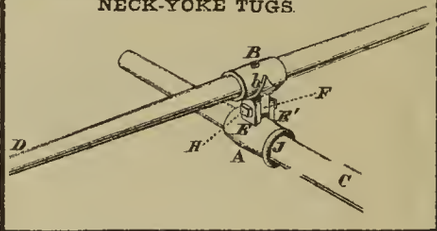
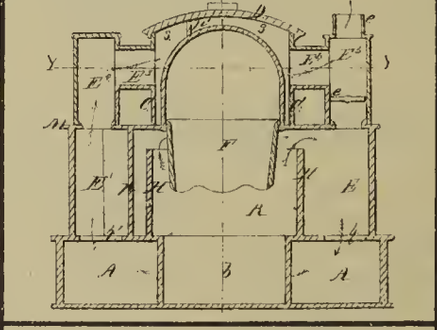


99,525, BENTLEY C. BIBB. PHILIP KLOTZ. **BASE-BURNING FIRE-PLACE HEATER.**



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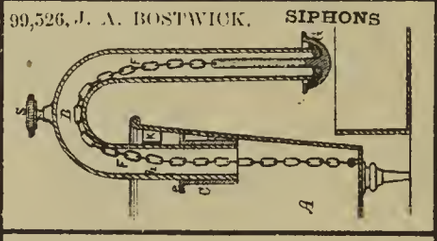
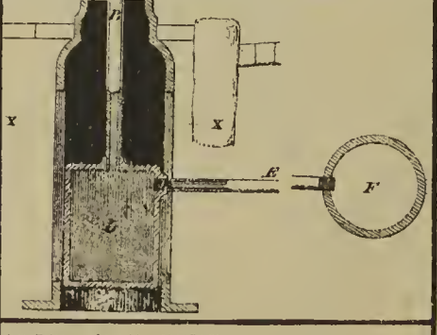
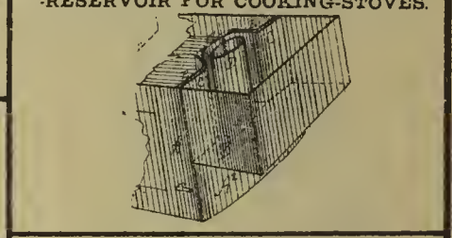


99,527, GEORGE C. BOVEY. **SEDIMENT-CHAMBER FOR LAMP-POSTS.**

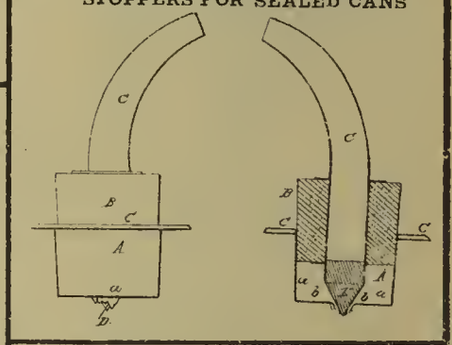


99,528. F. E. BOYD. **CARTRIDGE.**

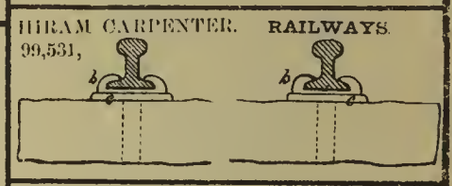
99,529, ESEK BUSSEY **WATER-RESERVOIR FOR COOKING-STOVES.**



99,530, ALEXANDER CAMPBELL. **PUNCTURING AND TUBULAR STOPPERS FOR SEALED CANS**



HIRAM CARPENTER. **RAILWAYS.** 99,531,



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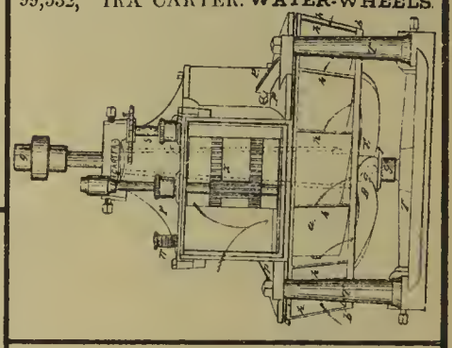

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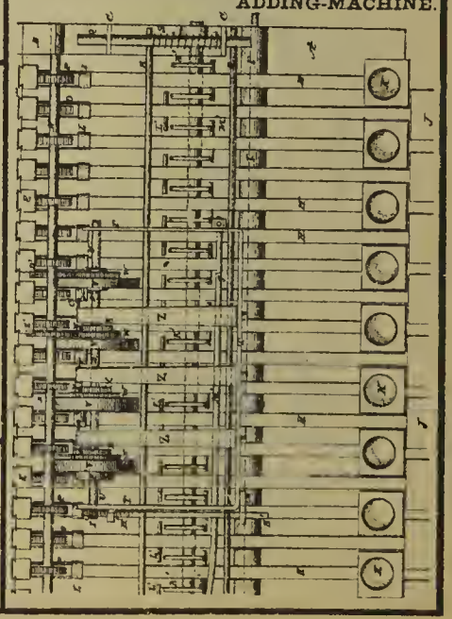
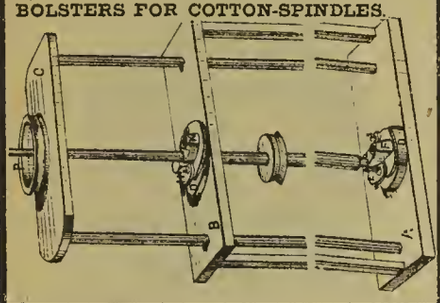


99,534. C. H. CHAPMAN. STEPS AND BOLSTERS FOR COTTON-SPINDLES.



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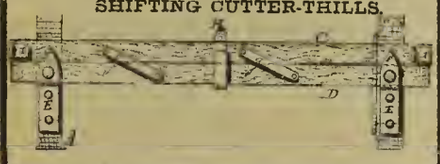

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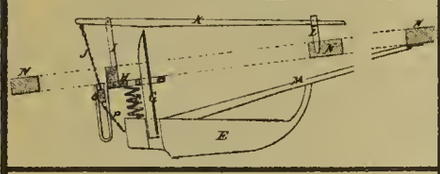

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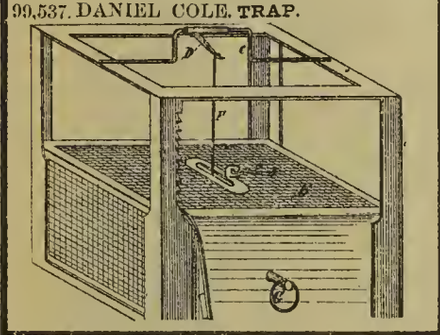

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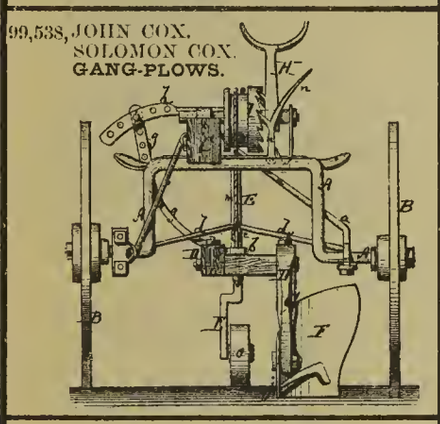

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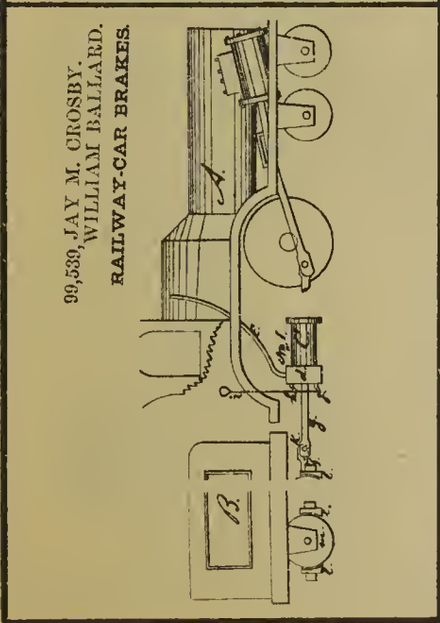
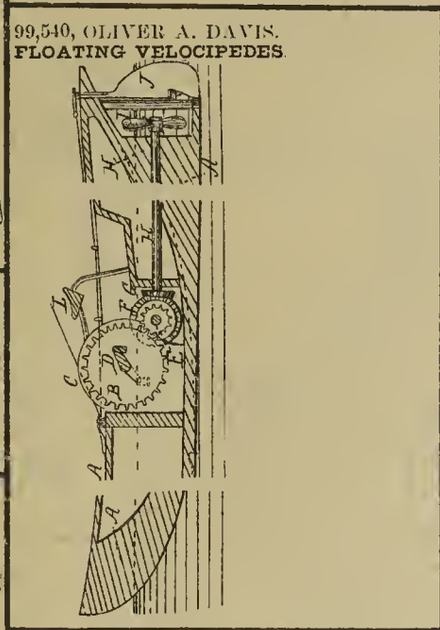


99,541, R. D'HEUREUSE. MALTING GRAIN.

99,540, OLIVER A. DAVIS. FLOATING VELOCIPEDES.



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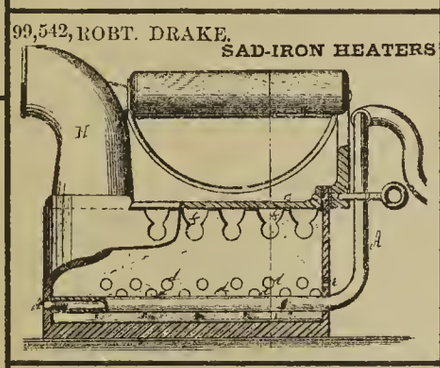

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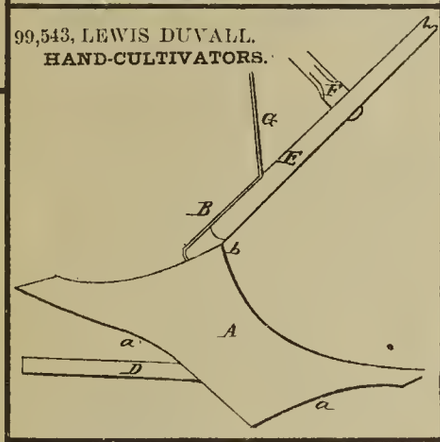
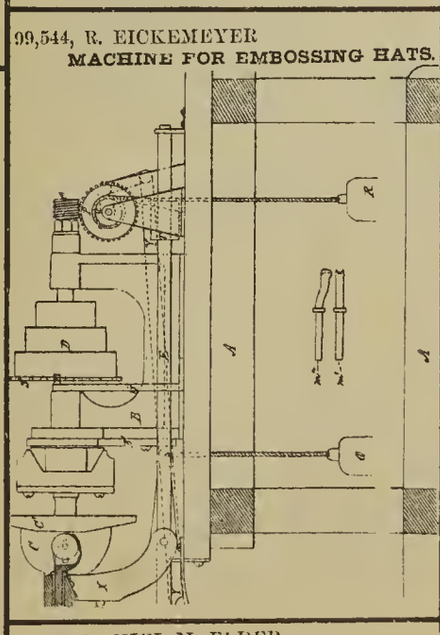


99,544, R. EICKEMEYER MACHINE FOR EMBOSSING HATS.



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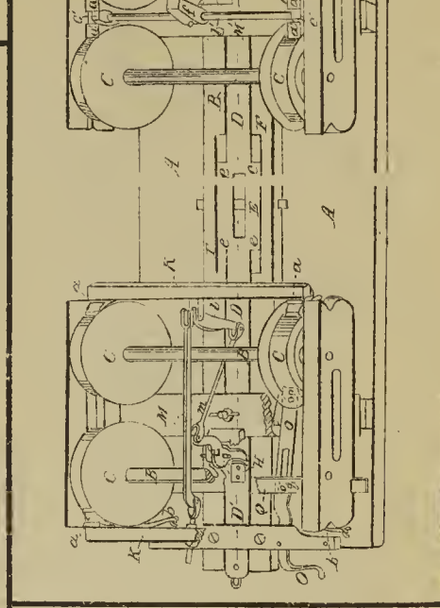
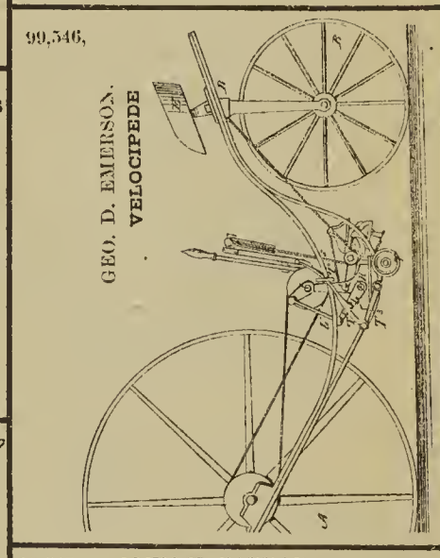
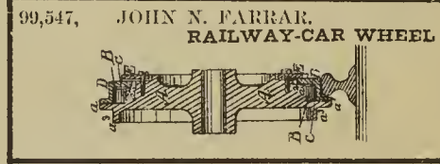


99,546, GEO. D. EMERSON. VELOCIPEDE



99,547, JOHN N. FARRAR. RAILWAY-CAR WHEEL



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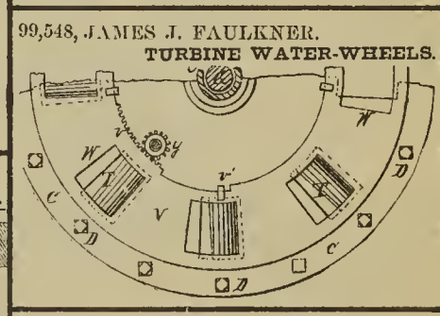

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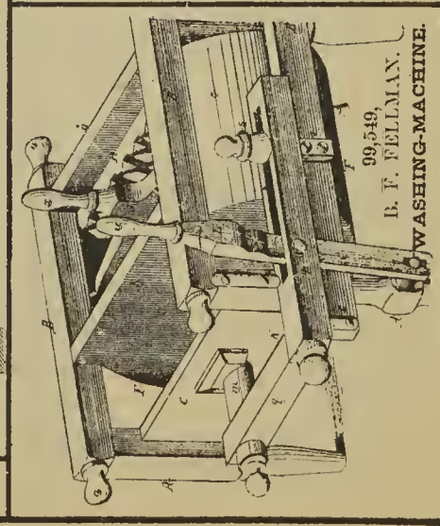

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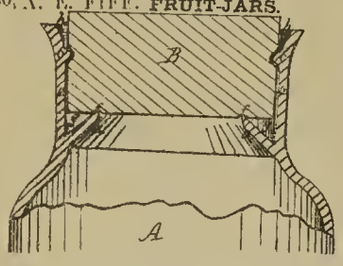

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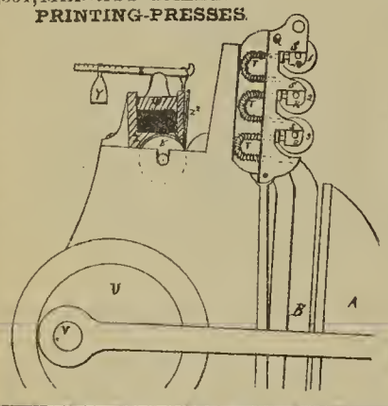

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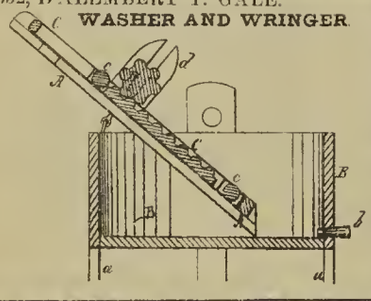
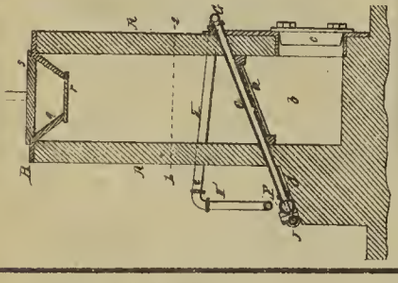
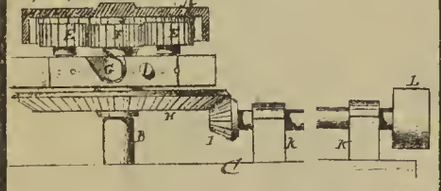


99,553, E. L. GAYLORD. TRUNK-LOCKS.

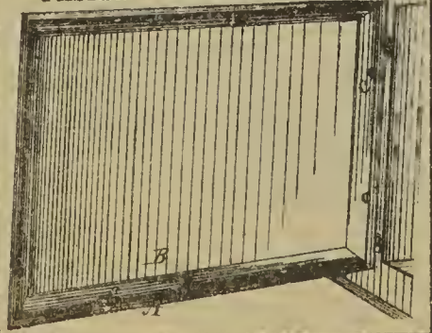
99,554, WILLIAM GERHARDT. GAS-PRODUCING FURNACES.



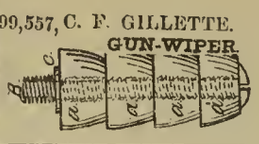
99,555, C. H. GIFFORD. HORSE-POWERS.



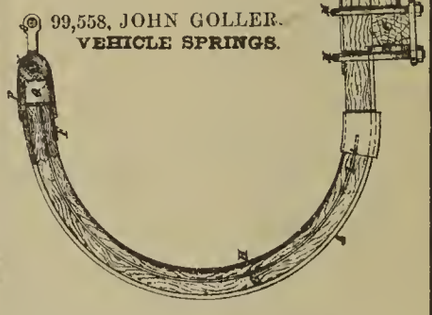
99,556, H. G. GILES. FASTENING STOVE-DOOR LININGS.



99,557, C. F. GILLETTE. GUN-WIPER.

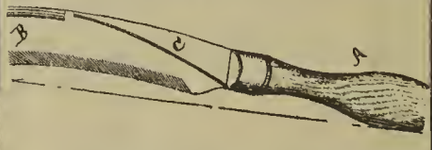


99,558, JOHN GOLLER. VEHICLE SPRINGS.



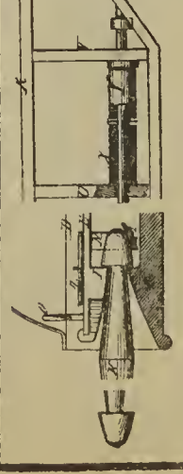
99,559, O. P. GOODMAN. NOSE-RING FOR HOGS.

99,560, GEORGE D. GOODSELL. NOYES E. BABCOCK. CORN-STALK-CUTTING KNIFE.



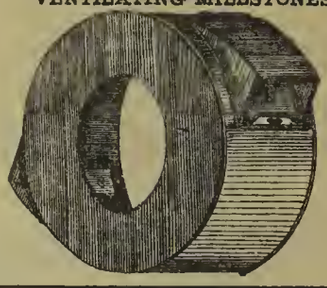
99,561, CALEB GOODWIN. SCIENTIFIC PLAYING-CARDS.

99,562, ROBT. GREEN RAILWAY-CAR COUPLING.

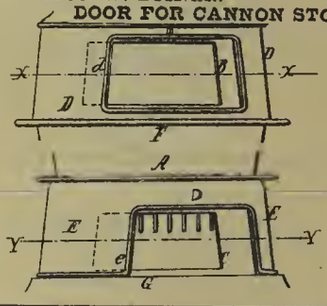


99,563, WILLIAM GREEN. MODE OF CONNECTING PITMEN TO CUTTER-BARS

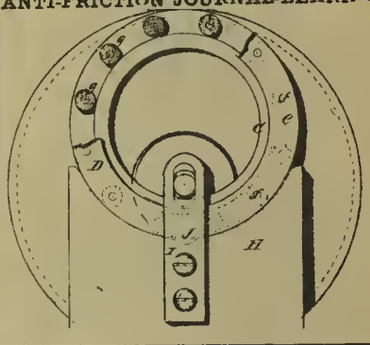
99,564, AMOS GRUBE. VENTILATING MILLSTONES.



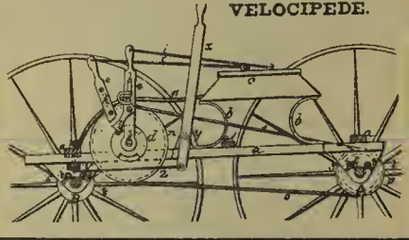
99,565, CONRAD HARRIS. PAUL W. ZOINER. DOOR FOR CANNON STOVE.



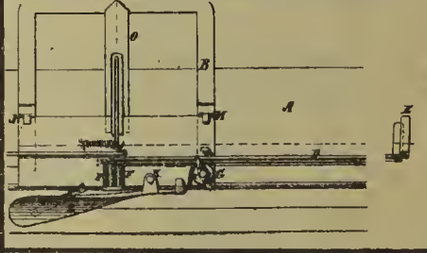
99,566, R. G. HATFIELD. ANTI-FRICTION JOURNAL-BEARINGS.



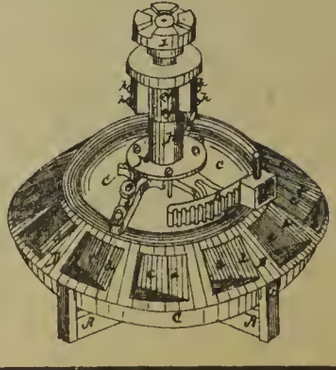
99,567, GUSTAVUS L. HAUSSKNECHT. VELOCIPEDE.



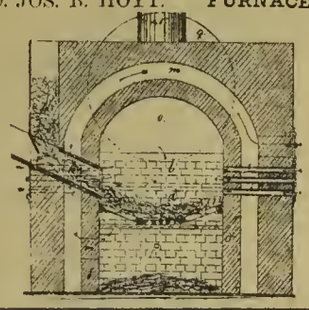
99,568. F. J. HERPERS. M. M. SOMMER. SHEET-MUSIC TURNER AND HOLDER.



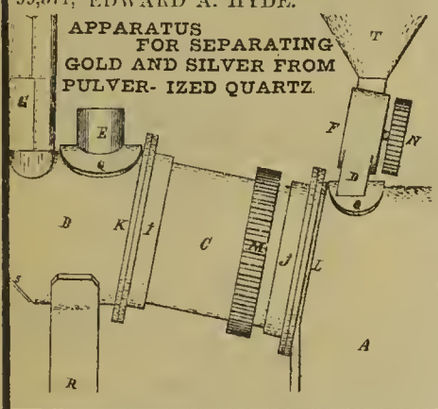
99,569. G. A. HOUSTON. WATER WHEEL.



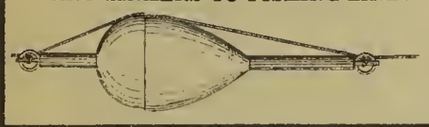
99,570. JOS. B. HOYT. FURNACES.



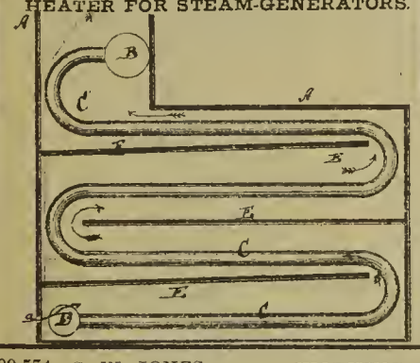
99,571, EDWARD A. HYDE. APPARATUS FOR SEPARATING GOLD AND SILVER FROM PULVER- IZED QUARTZ.



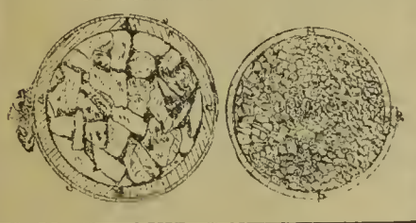
99,572, JAMES INGRAM. METHOD OF ATTACHING FLOATS AND SINKERS TO FISHING-LINES.



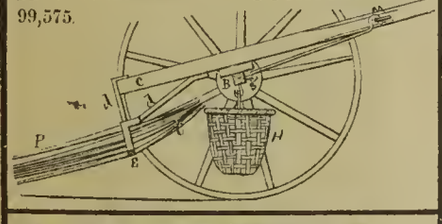
99,573, ENOS B. JOHNSON. FEED-WATER HEATER FOR STEAM-GENERATORS.



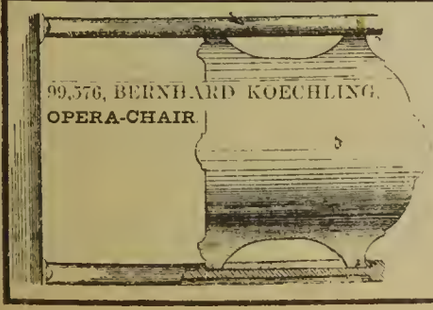
99,574, G. W. JONES. WORKING OF SCRAP AND OTHER IRON.



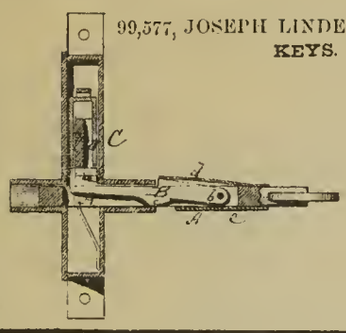
GEO. W. KNIGHT. POTATO-DIGGER. 99,575.



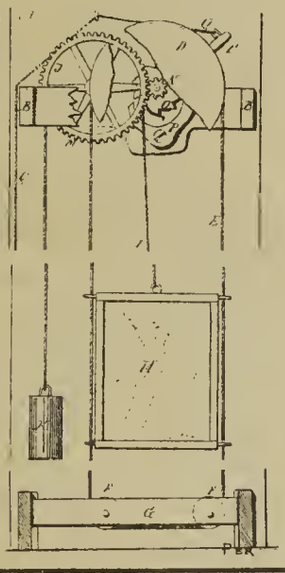
99,576, BERNHARD KOECHLING. OPERA-CHAIR.



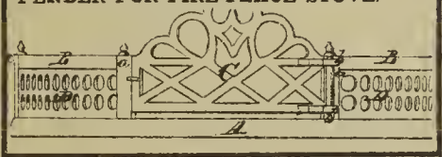
99,577, JOSEPH LINDER. KEYS.



99,578, MATTHEW LYNCH. HOISTING-MACHINES.

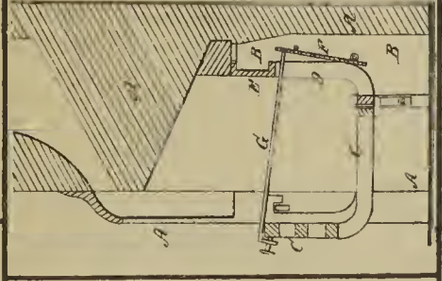


99,579, JOHN MARTINO. FENDER FOR FIRE-PLACE STOVE.

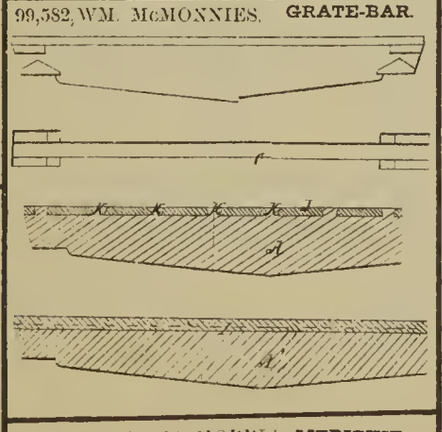


99,580, JOHN MARTINO. FENDER FOR FIRE-PLACE STOVE.

99,581, G. H. McELEVEY. FIRE-PLACE GRATE.

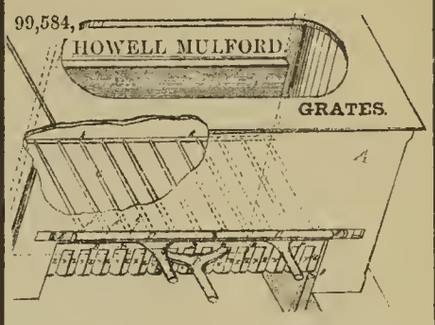


99,582, WM. McMONNIES. GRATE-BAR.

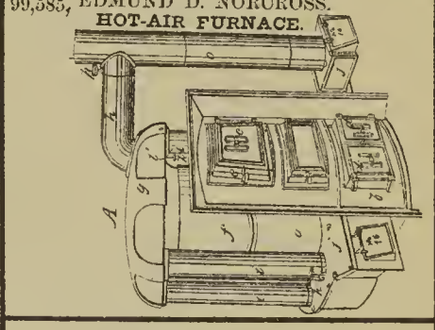


99,583, JACOB H. MORRIS. MEDICINE FOR CURE OF FEVER AND AGUE.

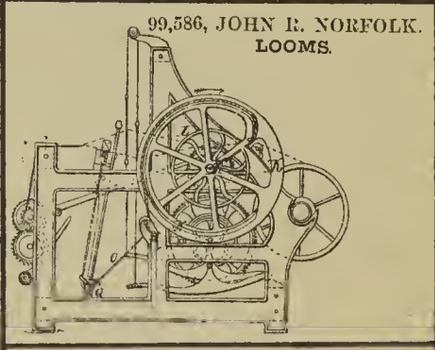
99,584, HOWELL MULFORD. GRATES.



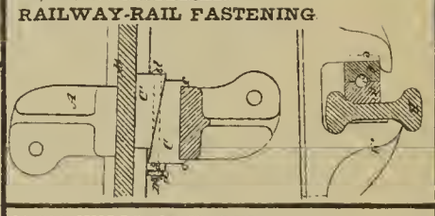
99,585, EDMUND D. NORCROSS. HOT-AIR FURNACE.



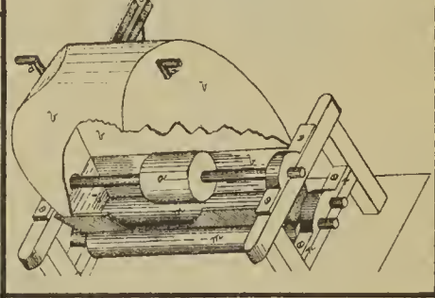
99,586, JOHN R. NORFOLK. LOOMS.



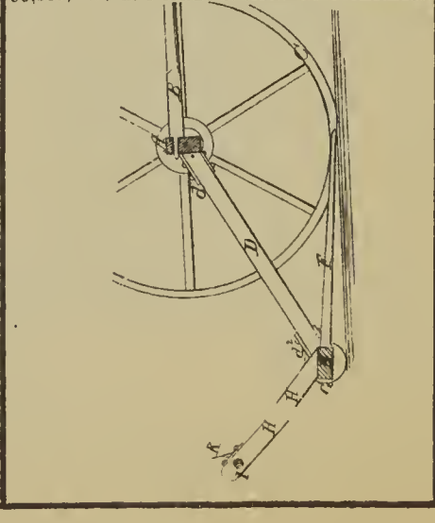
99,587, W. PALLISER. RAILWAY-RAIL FASTENING.



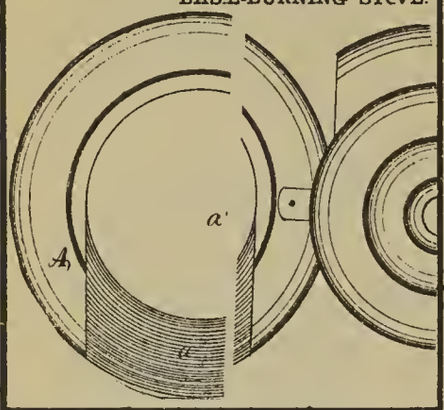
99,588, WILLIAM H. PERRY. MANUFACTURE OF IRON, AND GRANULATING THE SAME.



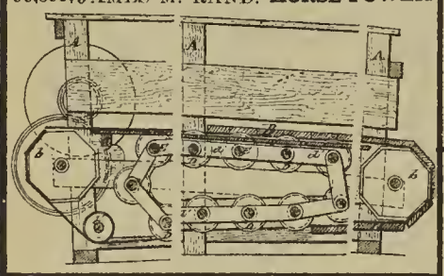
99,589, W. E. PHELPS. HAY-GATHERERS.



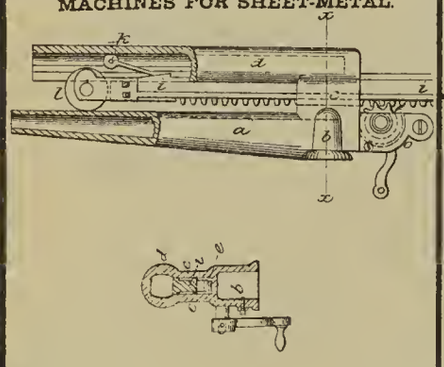
99,590, J. A. PRICE. BASE-BURNING STOVE.



99,591, JAMES M. RAND. HORSE-POWER.

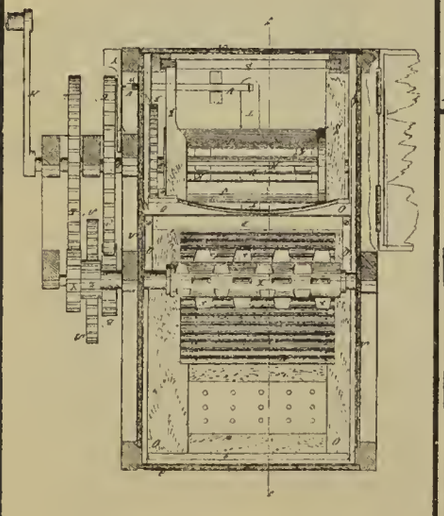


99,592, C. H. RAYMOND. GROOVING-MACHINES FOR SHEET-METAL.

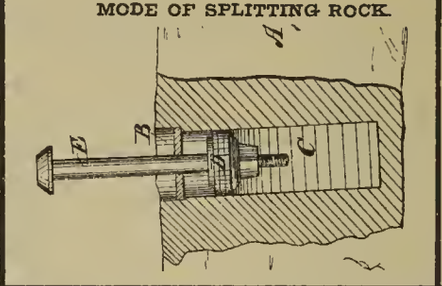


99,593, HIRAM M. RAYNOR. PIN FOR ARTIFICIAL TEETH.

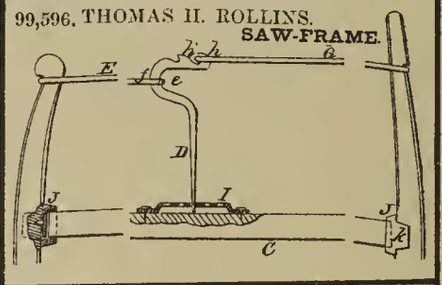
99,594, EDWIN REES. CLOTHES-WASHER AND DRIER.



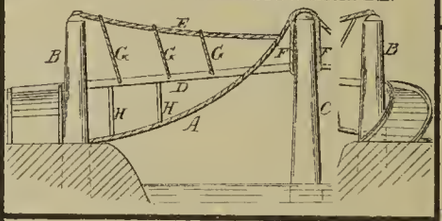
99,595, JOHN ROBB. MODE OF SPLITTING ROCK.



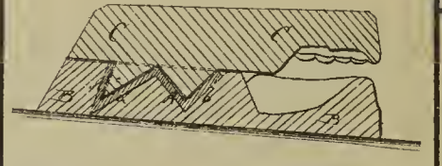
99,596, THOMAS H. ROLLINS. SAW-FRAME.



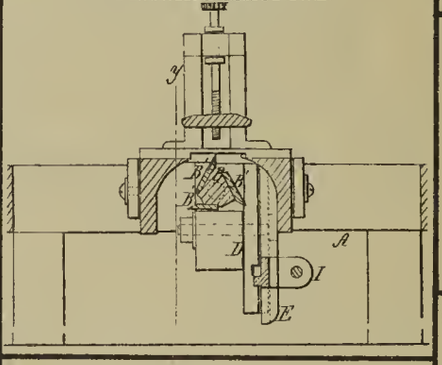
99,597, JARVIS ROYAL. SUSPENSION-BRIDGE.



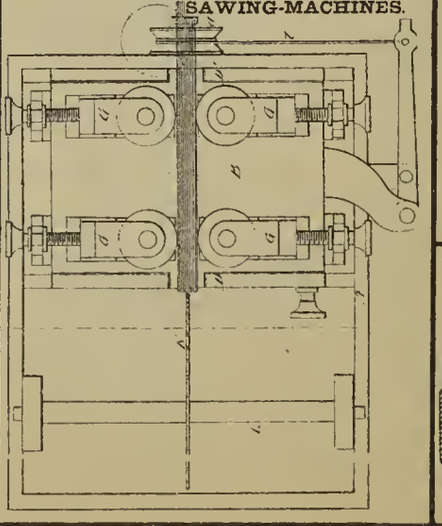
99,598, GEORGE F. SCHAFFER. DENTAL ARTICULATORS



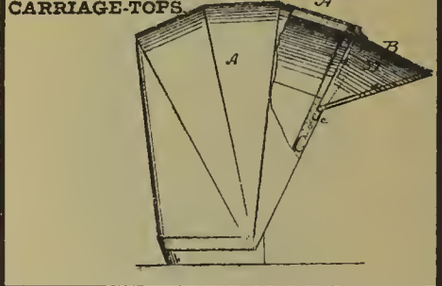
99,599, JOHN B. SCHENCK. PLANING-MACHINE.



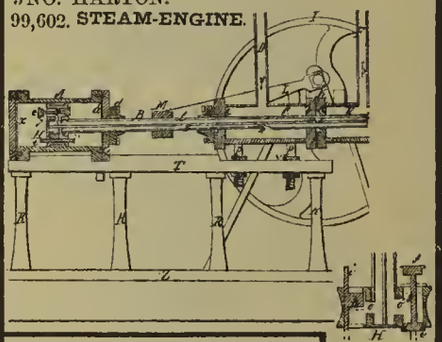
99,600, JOHN B. SCHENCK. SAWING-MACHINES.



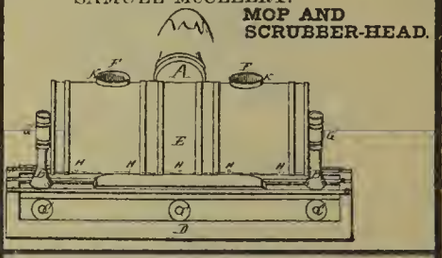
99,601 WM. SCHOCH. CARRIAGE-TOPS.



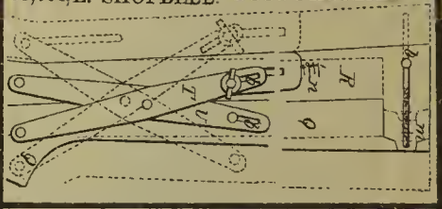
PETER SHELLENBACK. JNO. HARTON. 99,602. STEAM-ENGINE.



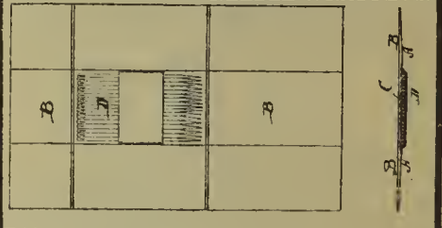
99,603, E. H. SHOEMAKER. SAMUEL McCLEERY. MOP AND SCRUBBER-HEAD.



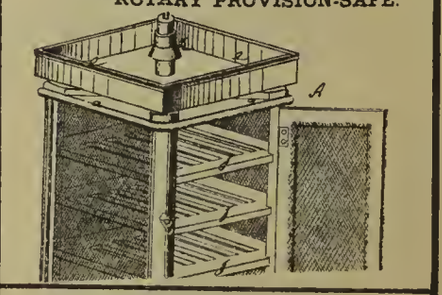
99,604, E. SHOPBELL. BOOT-PATTERN.



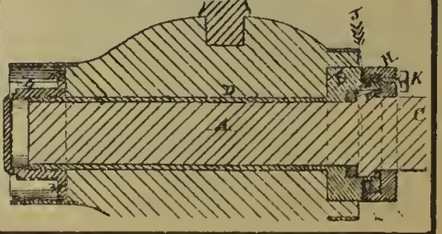
99,605, ALFRED SHRIMPTON. NEEDLE-WRAPPERS.



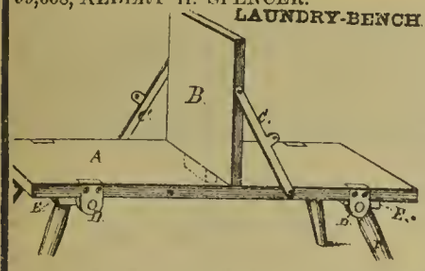
99,606, AUSTIN SLY. SAML. S. FORD. ROTARY PROVISION-SAFE.



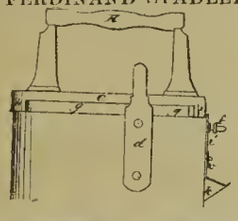
99,607, ALFRED E. SMITH. CARRIAGE AXLE-BOXES.



99,608, ALBERT H. SPENCER. **LAUNDRY-BENCH.**

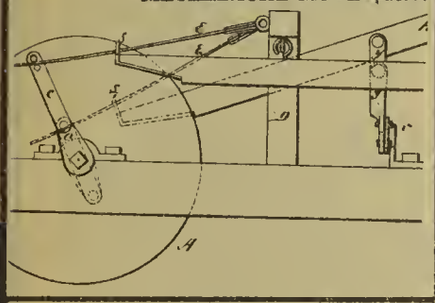


99,609, FERDINAND STADLER. **SAD-IRON HEATER.**

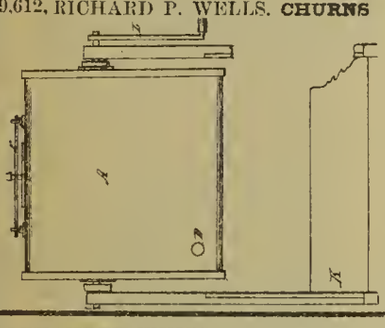


99,610, JOHN W. TULLY. **COMPOSITION OR FILLING FOR COACH-PAINTERS.**

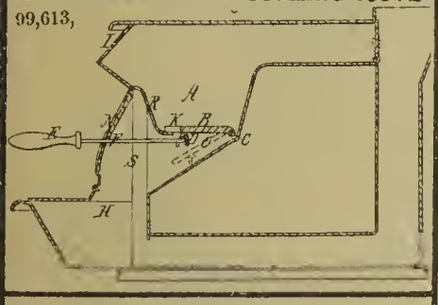
99,611, JAMES C. VANCLEAVE. **MECHANICAL MOVEMENT.**



99,612, RICHARD P. WELLS. **CHURNS**



ALEXANDER WHITE. **COOKING-STOVE.** 99,613,



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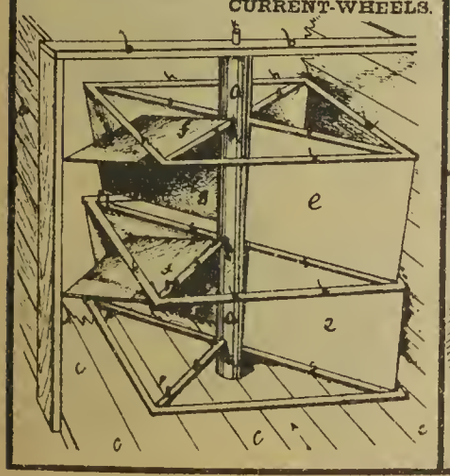
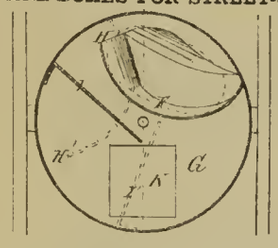
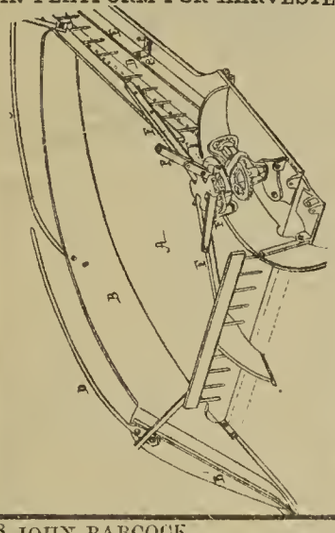


99,615, JOSEPH WOLFF. **MANUFACTURE OF YEAST FOR DISTILLERS.**

99,616, W. W. WORMOOD. **FARE-BOXES FOR STREET-CARS.**

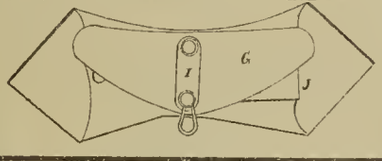


99,617. ADRIANCE AND BROWN. **GRAIN PLATFORM FOR HARVESTERS.**



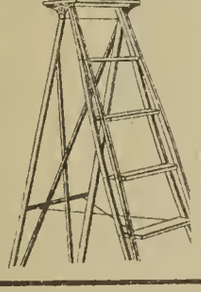
99,618, JOHN BABCOCK. **COMPOSITION FOR PREPARING WOOD FOR PAINTING.**

99,619, JOHN BACHELDER. **NECKTIES.**

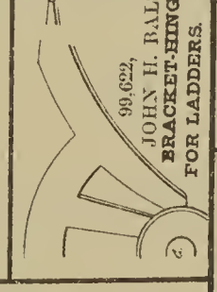


99,620, FRANCIS R. BAIRD. **HASP-FASTENINGS FOR FRUIT-CRATES.**

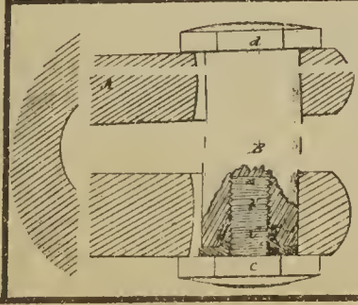
99,621, JOHN H. BALSLEY. **STEP-LADDERS.**



99,622, JOHN H. BALSLEY. **BRACKET-HINGE FOR LADDERS.**

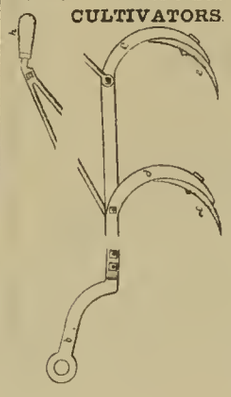


99,623, ELIJAH BANGS. **CHAIN-SHACKLES**

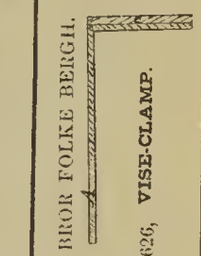


99,624, JULIUS BAUR. **MANUFACTURE OF STEEL.**

99,625, D. G. BENNER. **CULTIVATORS.**



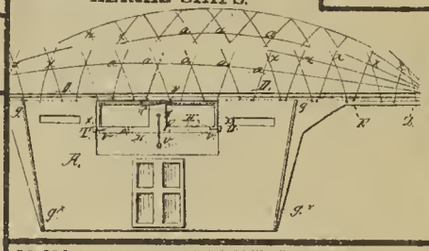
BROR FOLKE BERGH. 99,626, **VISE-CLAMP.**



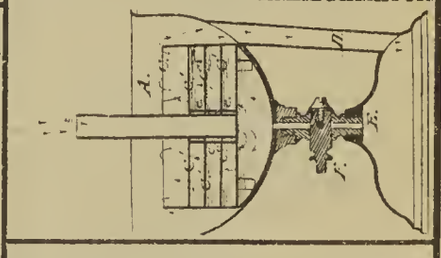
99,627, WILLIAM BESCHKE. **PACKING FOR STEAM-ENGINES, PUMPS, &c.**

99,628, LYMAN BRADLEY. T. D. PHILLIPS. **PRESERVING FRUITS, VEGETABLES.**

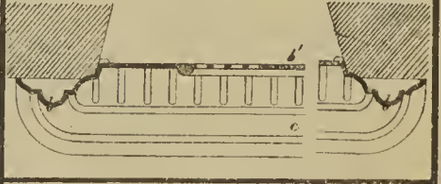
99,629, MARTIN BRAUN. **AERIAL SHIPS.**



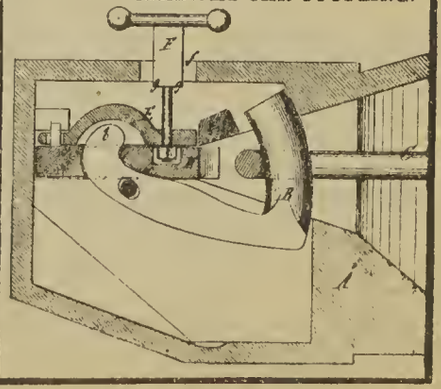
99,630, JOHN C. BREWSTER. **AMALGAMATOR.**



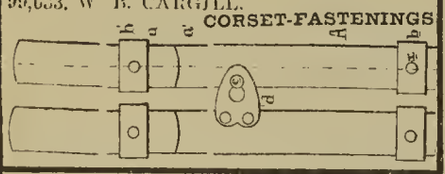
99,631. ANDREW BROWN. WILLIAM PATTERSON. **BASE FOR SUMMER-PIECES AND GRATE-FRAMES.**



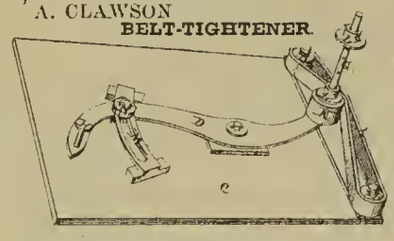
99,632, LEOPOLD F. BUSCHMANN. **RAILWAY-CAR COUPLING.**



99,633. W. B. CARGILL. CORSET-FASTENINGS



99,634, M. C. CHAMBERLIN. A. CLAWSON BELT-TIGHTENER.



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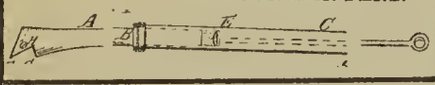
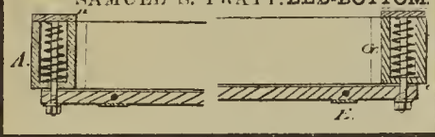
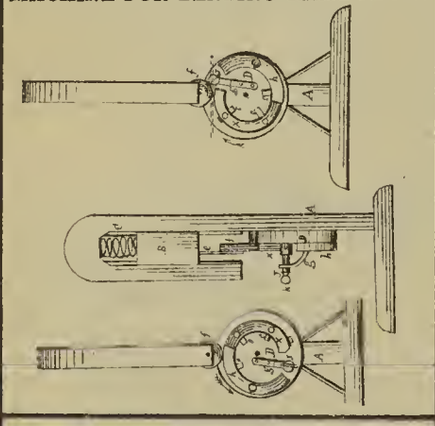


99,636, I. A. CLIPPINGER. SAMUEL S. PRATT. BED-BOTTOM.

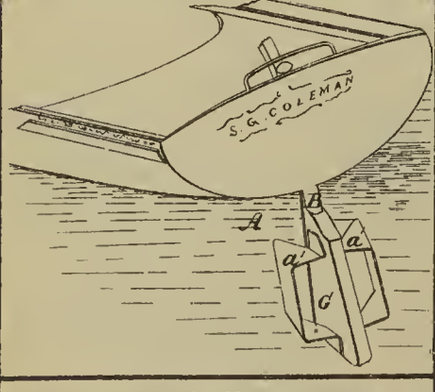


99,637, FRANCOIS COIGNET. TREATING ARGILLACEOUS LIMESTONES, TO OBTAIN HYDRAULIC CEMENT, &c.

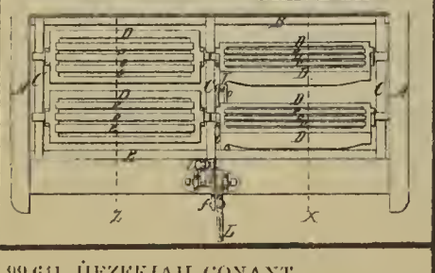
99,638, COLUMBUS COLEMAN. MACHINE FOR BENDING RAKE-TEETH.



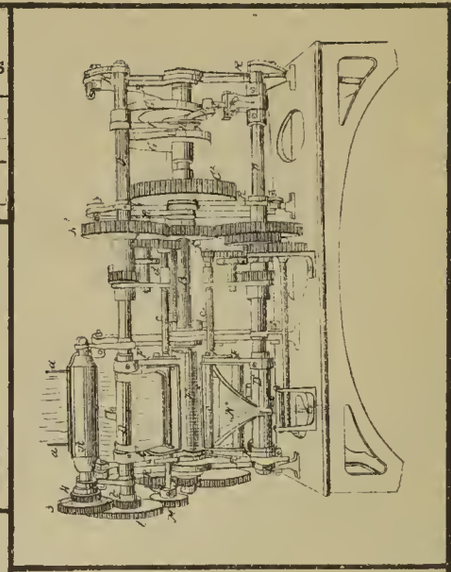
99,639, STEPHEN G. COLEMAN. RUDDERS FOR VESSELS.



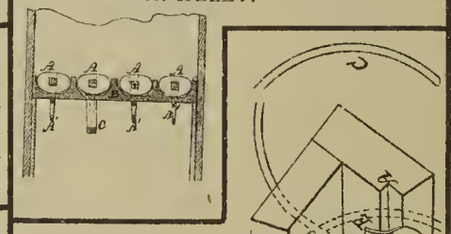
99,640. H. COLLINSON. GRATE BAR.



99,641, HEZEKIAH CONANT. MACHINES FOR COMBING COTTON.



99,642, J. CONE. FURNACE GRATE-BAR. WM. K. KELLY.



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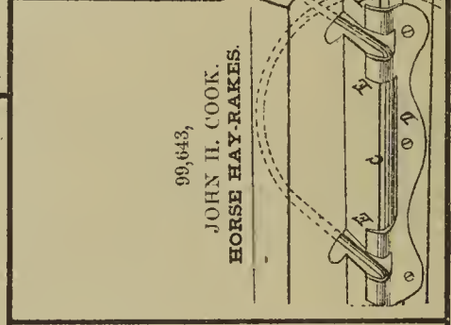
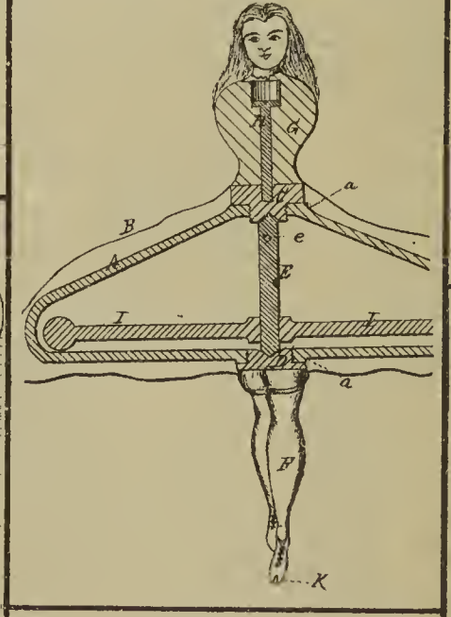
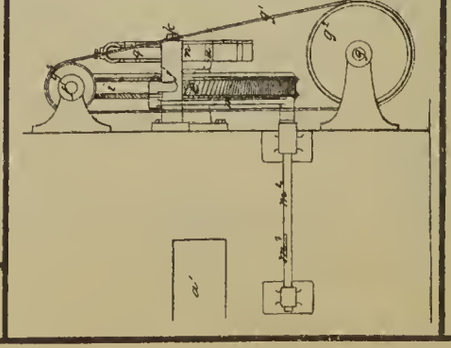


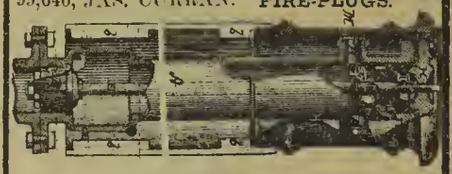
99,644, CHAS. L. COOMBS. TOYS.



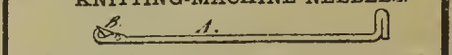
99,645, ALEXANDER CRUMBIE. OVEN.



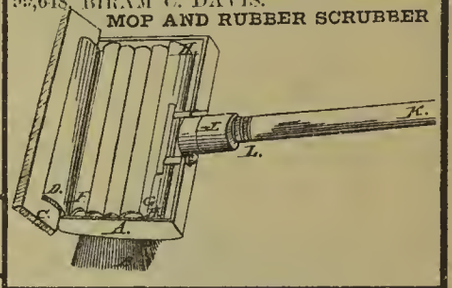
99,646, JAS. CURRAN. FIRE-PLUGS.



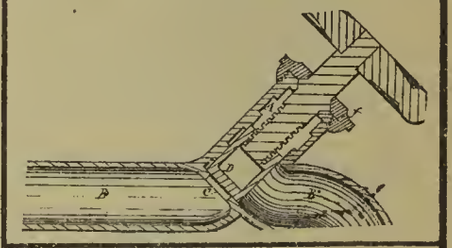
99,647, JOHN F. DANIELS. KNITTING-MACHINE NEEDLES.



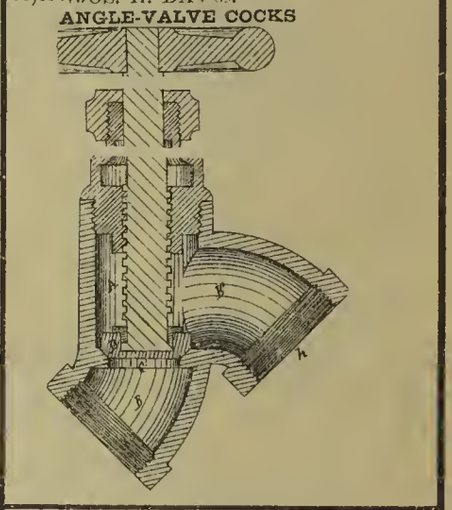
99,648, BIRAM C. DAVIS. MOP AND RUBBER SCRUBBER.



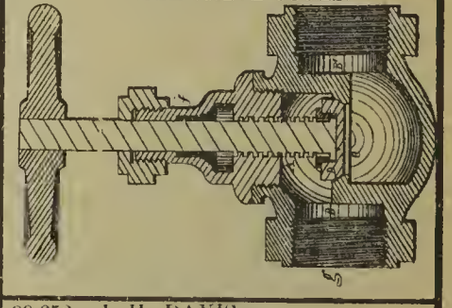
99,649, JOS. H. DAVIS. BIB-COCKS.



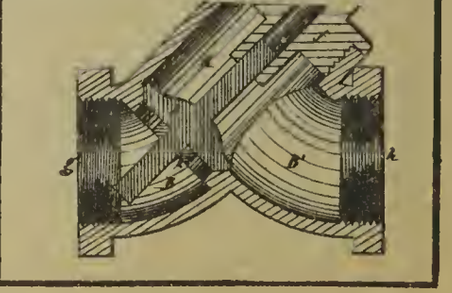
99,650, JOS. H. DAVIS. ANGLE-VALVE COCKS.



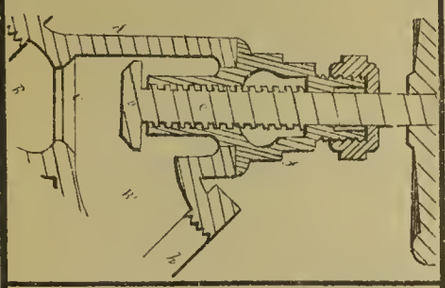
99,651, JOS. H. DAVIS. GLOBE-VALVE COCKS.



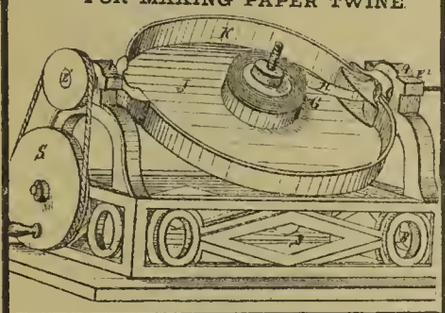
99,652. J. H. DAVIS. CHECK VALVE COCK.



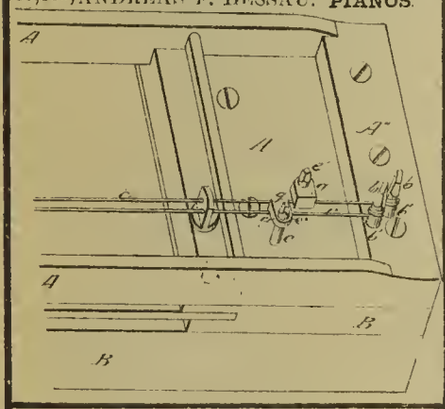
99,653, JOS. H. DAVIS.
VALVE-COCKS MADE OF CAST-IRON AND SUBSEQUENTLY ANNEALED.



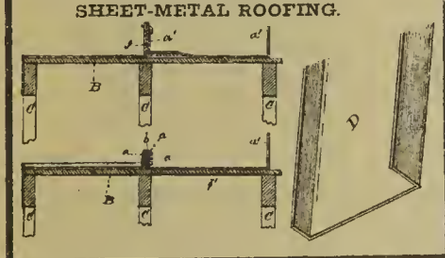
99,654, R. V. DE GUINON. MACHINE FOR MAKING PAPER TWINE.



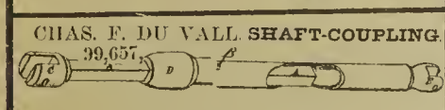
99,655, ANDREAS F. DESSAU. PIANOS.



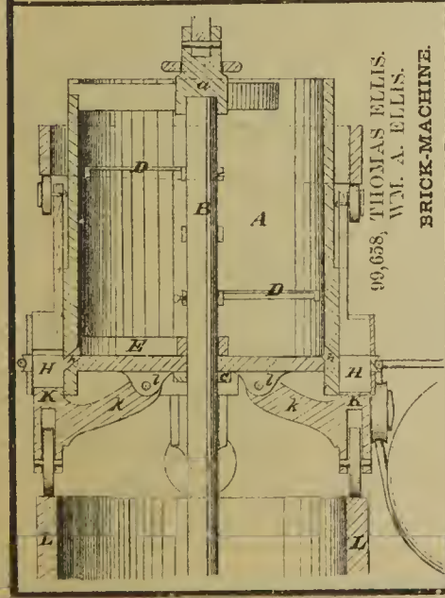
99,656, JOSEPH DIEHL.
SHEET-METAL ROOFING.



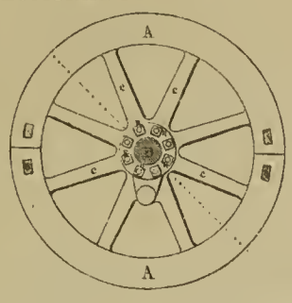
CHAS. F. DU VALL. SHAFT-COUPLING.
99,657.



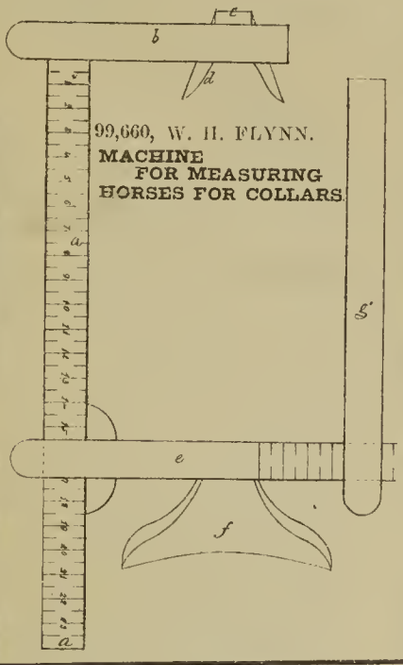
99,658, THOMAS ELLIS.
WM. A. ELLIS.
BRICK-MACHINE.



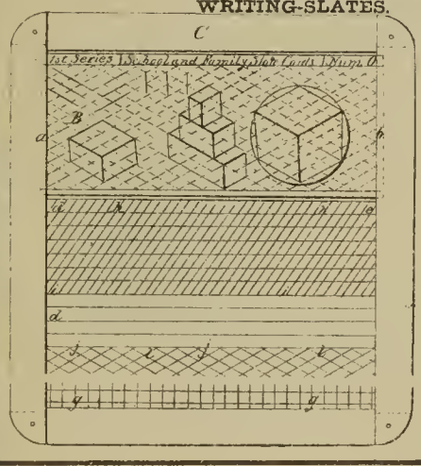
99,659, HENRY L. FARR.
SECTIONAL FLY-WHEELS.



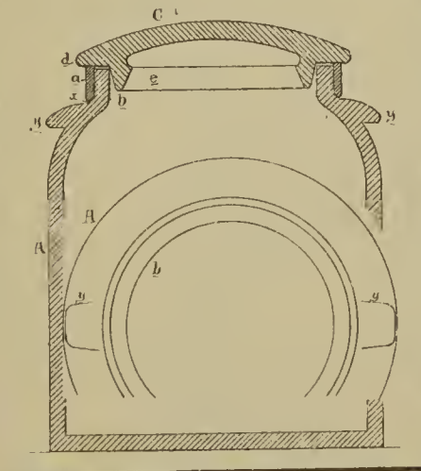
99,660, W. H. FLYNN.
MACHINE FOR MEASURING HORSES FOR COLLARS.



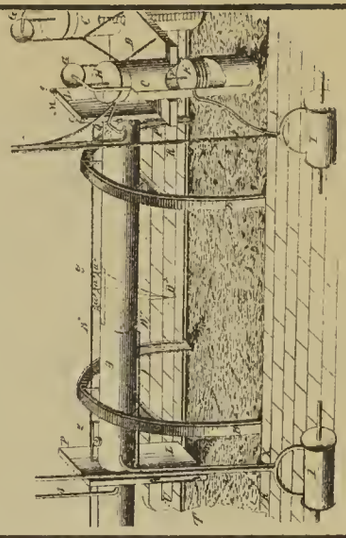
99,661, JOHN H. FRENCH.
WRITING-SLATES.



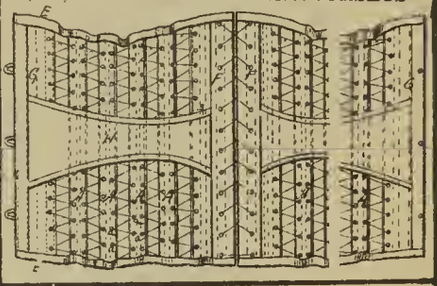
99,662, WM. GALLOWAY. FRUIT-JARS.



99,663, RUF
ATMOSPHERIC TRANSPORTATION.

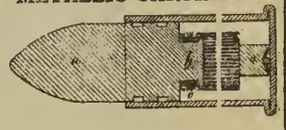


99,664, THOMAS S. GILBERT. CORSETS.

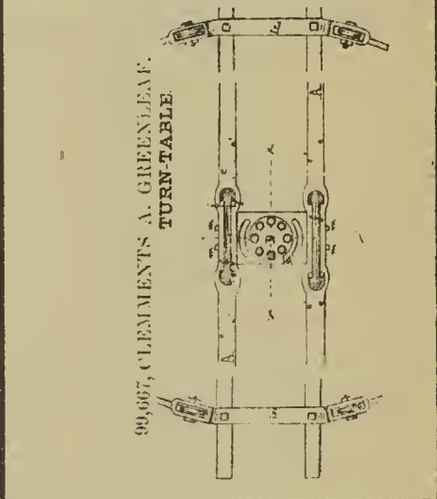


99,665, EDWIN GOMEZ.
EXPLODING COMPRESSED POWDER.

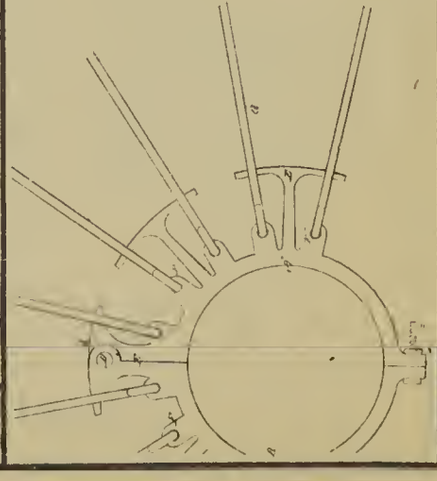
99,666, EDWIN GOMEZ.
METALLIC CARTRIDGES.



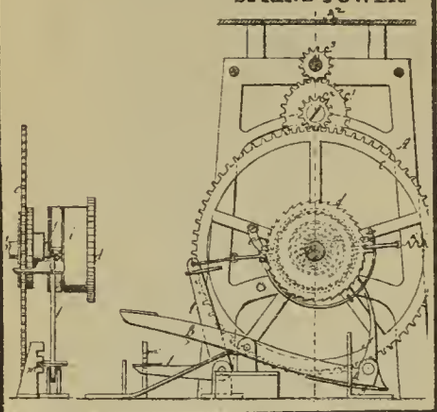
99,667, CLEMMENTS A. GREENLEAF.
TURN-TABLE.

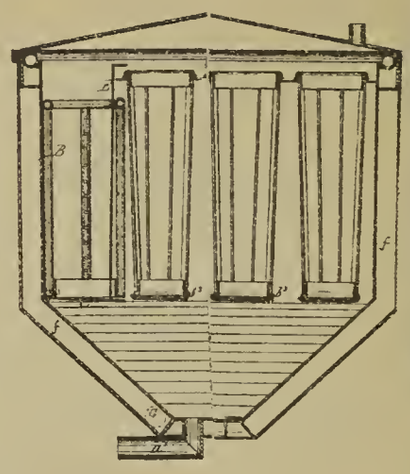


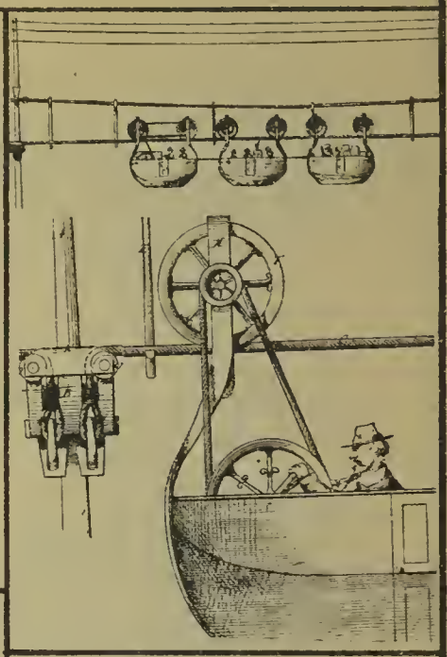
99,668, SELIM ELLIAH GROUT.
TOWEL-DRIER.



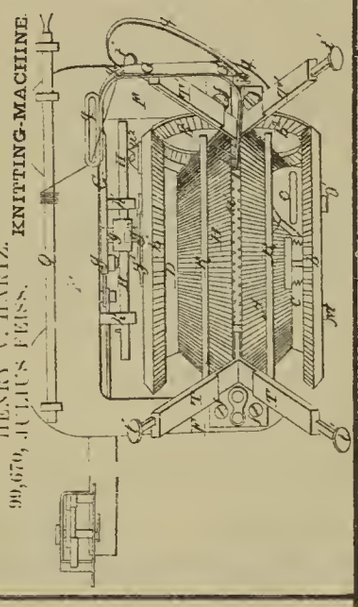
99,669, A. C. HALLAM.
JAMES W. McKEE.
SPRING-POWER.





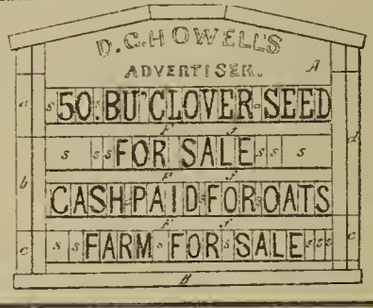


99,670, JULIUS FEISS. HENRY V. HARTZ. KNITTING-MACHINE.

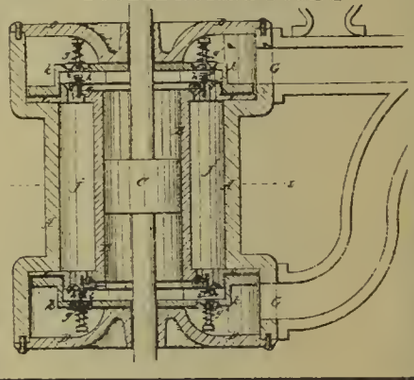


99,674. CHARLES D. HOUSE
TWISTING-TUBES FOR SPINNING.

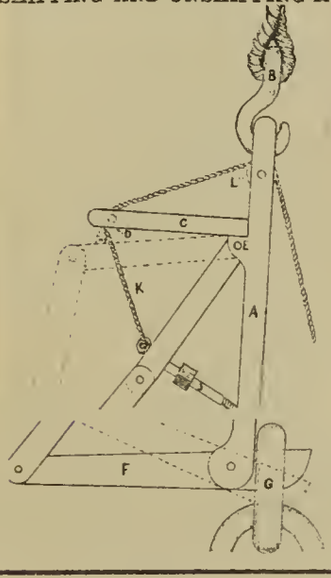
99,675, DANIEL G. HOWELL.
EXTENSIBLE ADVERTISING-FRAME.



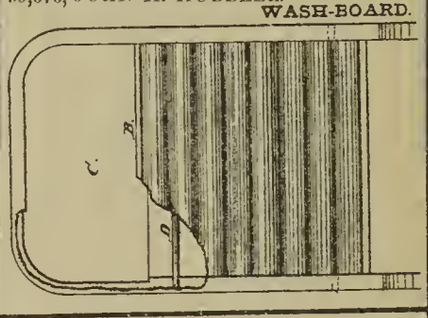
99,680, WM. H. IVENS.
DOUBLE-ACTING PUMPS



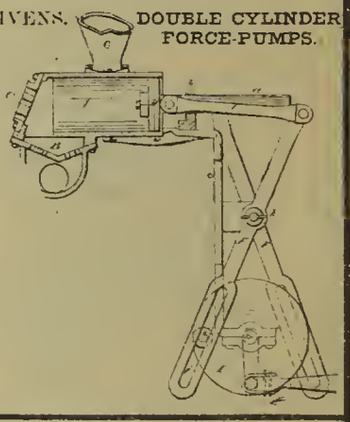
99,671, NOAH HAVERMALE.
SHIPPING AND UNSHIPPING-HOOKS.



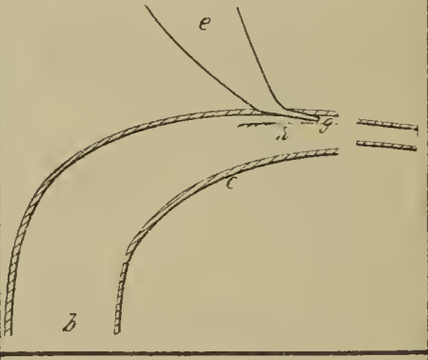
99,676, JOHN H. HUBBELL.
WASH-BOARD.



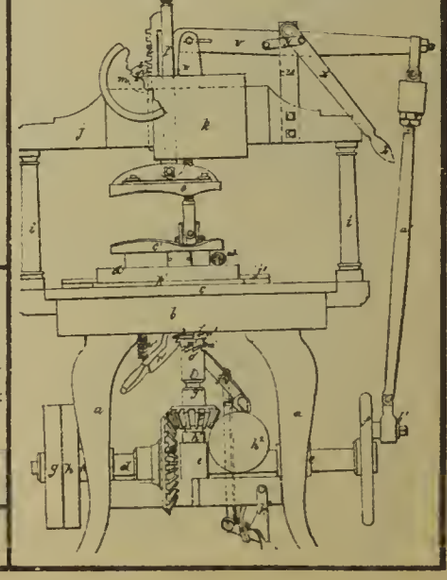
99,681, WM. H. IVENS.
DOUBLE CYLINDER FORCE-PUMPS.



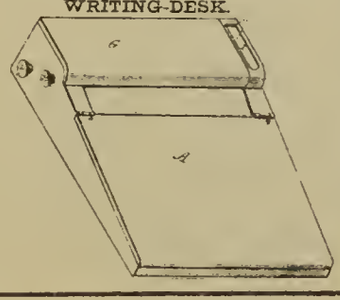
99,677, WM. W. HUBBELL.
SMELTING AND REFINING IRON.



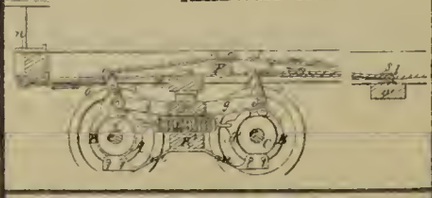
99,682, ALBERT JEFFERS.
MACHINE FOR MOULDING, ROUNDING, CHANNELLING, AND STAMPING SOLES OF BOOTS AND SHOES.



99,672, WILLIAM HOFER.
WRITING-DESK.



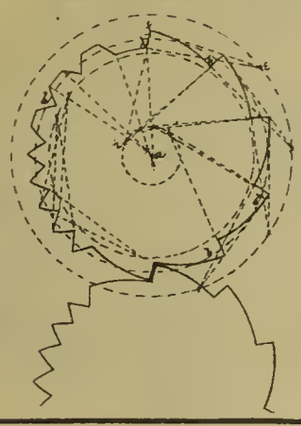
99,678, E. N. HUNTSMAN.
RAILWAY-CAR BRAKE.



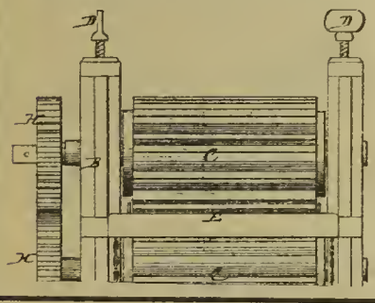
99,673, WILLIAM J. HOOPER.
THEODORE HOOPER
ORAZIO LUGO.
APPARATUS FOR DRYING FISH AND OTHER SUBSTANCES.

99,679, WALTER HYDE.
ELEVATED RAILWAY.

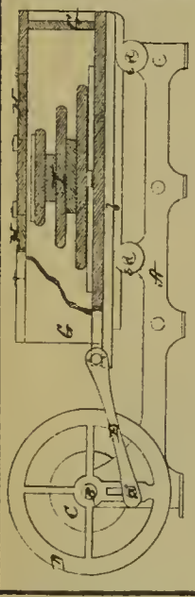
99,683, ASA JOHNSON. METHOD OF FORMING TEETH ON ROLLERS.



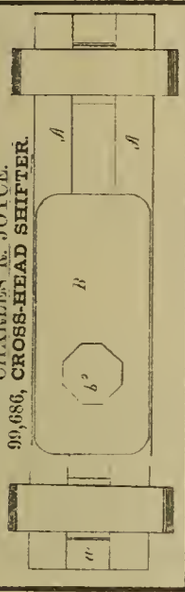
99,684, ASA JOHNSON. MACHINERY FOR CORRUGATING AND MOULDING SHEET-METAL.



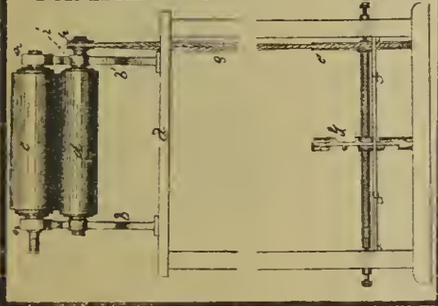
99,685, JOSEE JOHNSON. POWER WASHING-MACHINE.



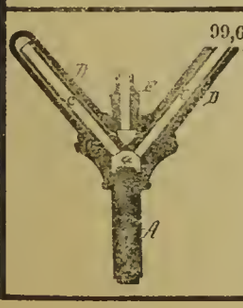
99,686, CHARLES R. JOYCE. CROSS-HEAD SHIFTER.



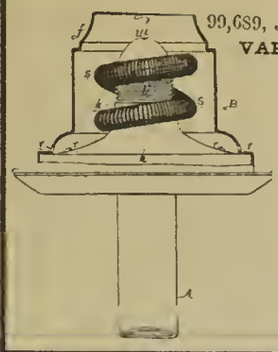
99,687. MARTIN M. KLUCK. MACHINE FOR SPREADING TOBACCO-LEAVES.



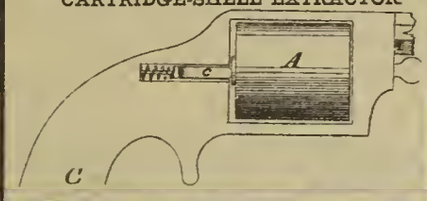
99,688, JOHN C. LOVE. VAPOR-BURNERS.



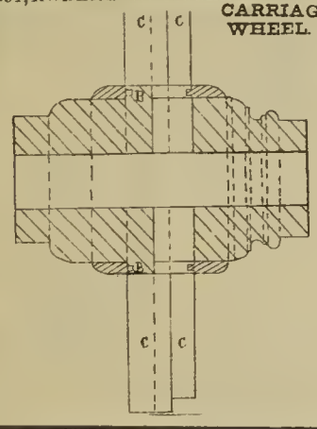
99,689, JOHN C. LOVE. VAPOR-BURNERS.



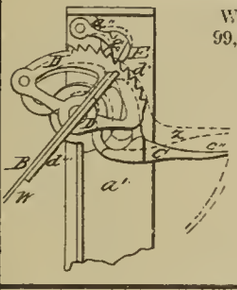
99,690, JOHN M. MARLIN CARTRIDGE-SHELL EXTRACTOR.



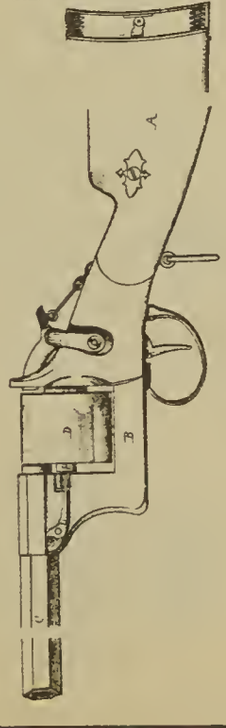
99,691, ROBERT W. McCLELLAND. CARRIAGE-WHEEL.



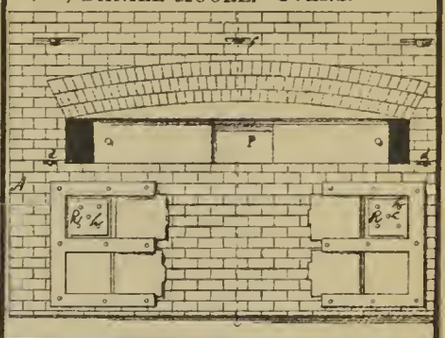
WM. L. McDOWELL. 99,692. REGISTER FOR AIR-FLUES.



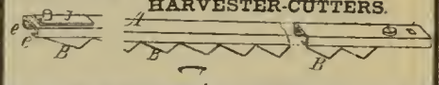
99,693, JOHN C. MILLER. REVOLVING FIRE-ARMS.



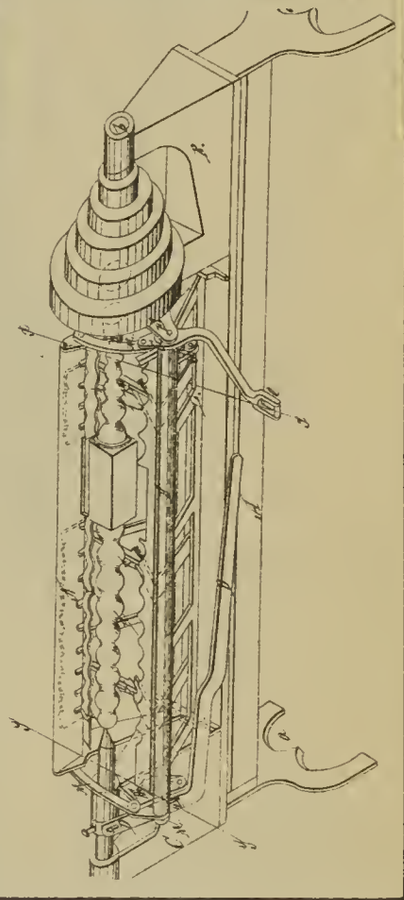
99,694, DANIEL MOORE. OVENS.



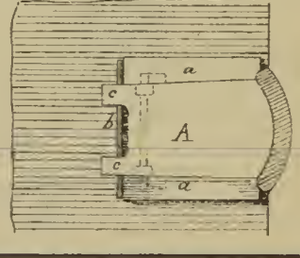
99,695, C. K. MYERS. HARVESTER-CUTTERS.



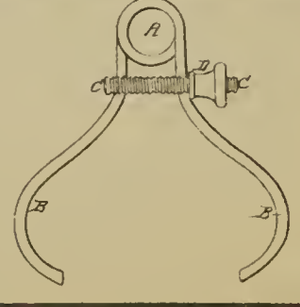
99,696, NATHAN NORRIS. CHARLES S. BLACK. HORACE S. BLACK. WOOD-TURNING LATHE.



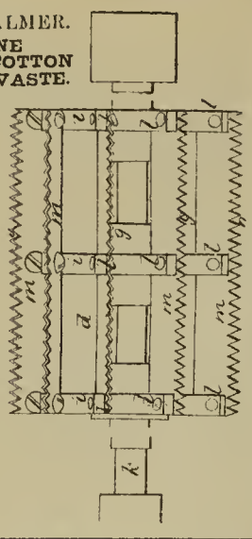
99,697, WM. R. OATLEY. STOVE-LEGS.



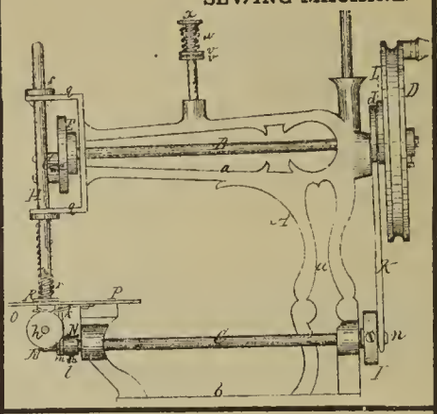
99,698, T. C. PAGE. GEO. W. HADLEY. CALIPERS.



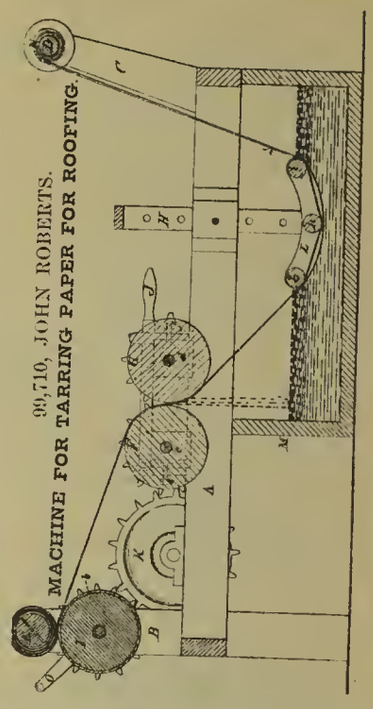
GEORGE F. PALMER.
99,699, MACHINE FOR PICKING COTTON AND OTHER WASTE.



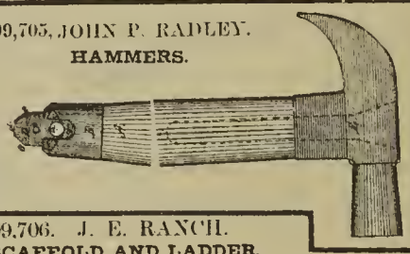
99,704, ALONZO PORTER.
SEWING-MACHINE.



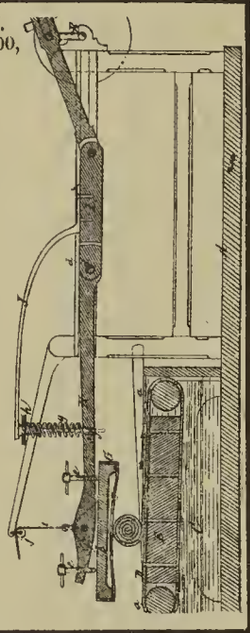
99,710, JOHN ROBERTS.
MACHINE FOR TARRING PAPER FOR ROOFING.



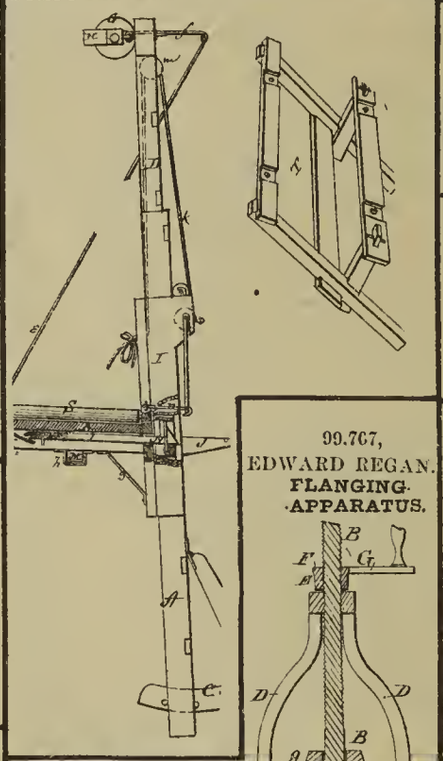
99,705, JOHN P. RADLEY.
HAMMERS.



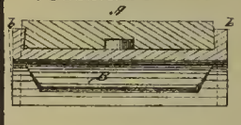
FRANCIS DEGEN.
A. PELISSE. 99,700,
HAT-SIZING MACHINES.



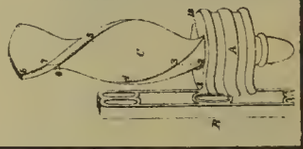
99,706. J. E. RANCH.
SCAFFOLD AND LADDER.



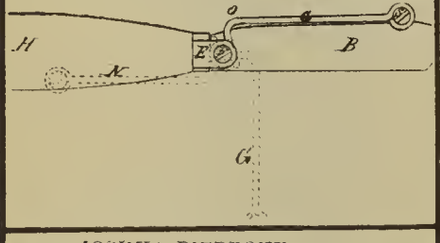
99,711, JAS. T. ROBINETT.
JOURNAL-BOXES.



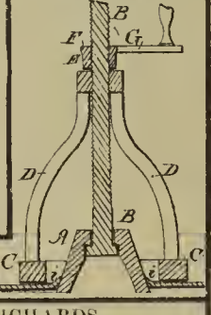
99,712, BENOIT ROUX.
AUGER GATE-HINGES.



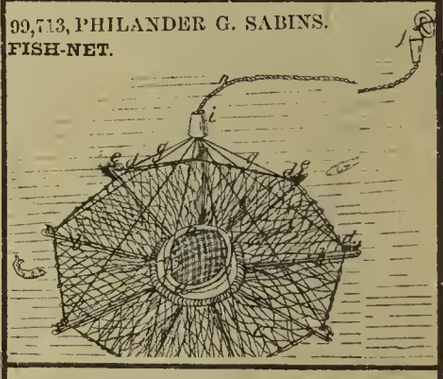
99,701, DAN PERRY. KNIFE-GUARD.



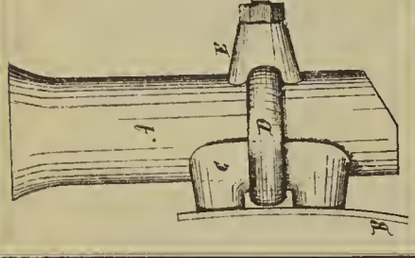
99,707,
EDWARD REGAN.
FLANGING-APPARATUS.



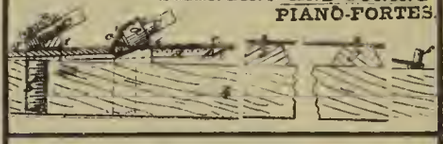
99,713, PHILANDER G. SABINS.
FISH-NET.



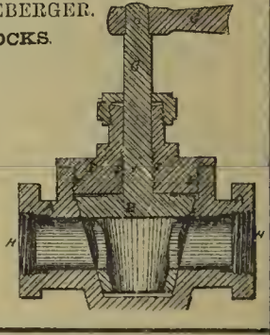
99,702, JOSHUA PIERPONT.
DEVICE FOR SECURING SHOVELS AND PLOW-SHARES TO STANDARDS.



99,708, WILLIAM J. RICHARDS.
FERDINAND M. SOFGE.
JOSEPH H. RICHARDS.
STRINGING AND TUNING PIANO-FORTES.



JOSEPH SEEBERGER.
99,714, STOP-COCKS.



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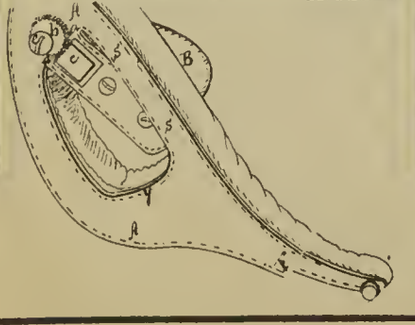
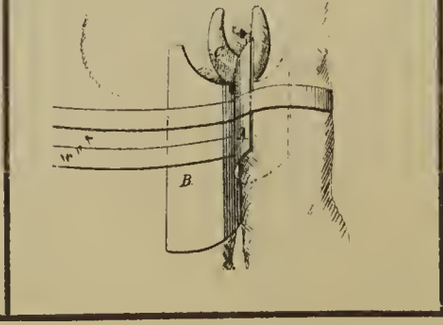
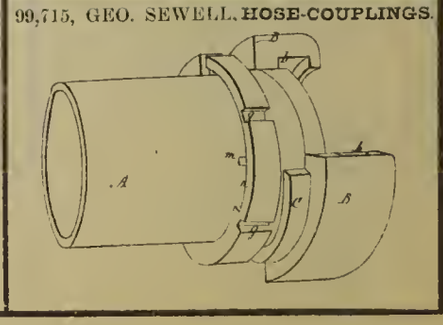
WILLIAM POMEROY. TRUSSES.



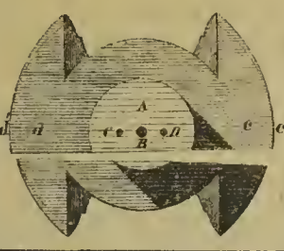
99,709, HAYNES L. RICHARDSON.
SPLINT FOR FRACTURE OF CLAVICLE.



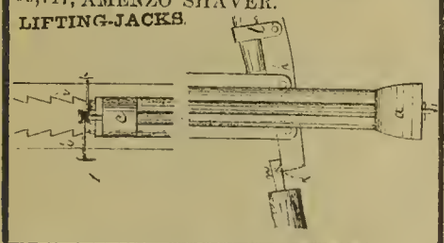
99,715, GEO. SEWELL. HOSE-COUPLINGS.



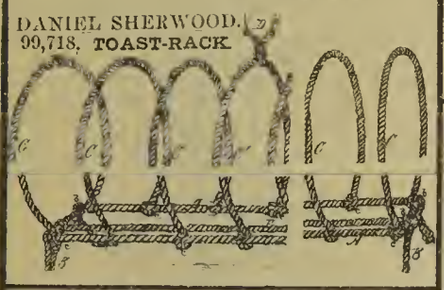
99,716. THOMAS J. SHANNON. MOULDING-CUTTER.



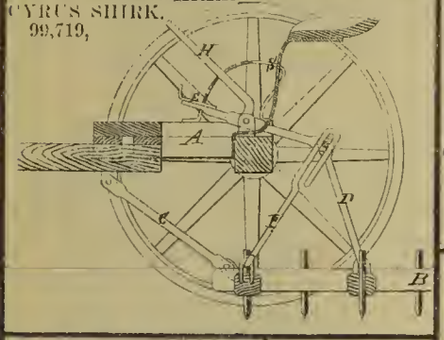
99,717, AMENZO SHAVER. LIFTING-JACKS.



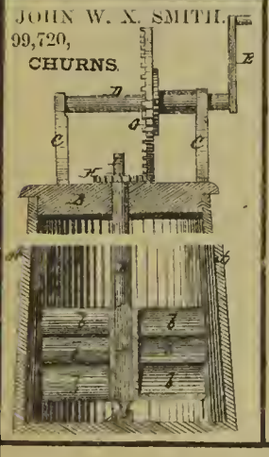
DANIEL SHERWOOD. 99,718. TOAST-RACK.



HENRY SHIRK. HARROW. CYRUS SHIRK. 99,719,

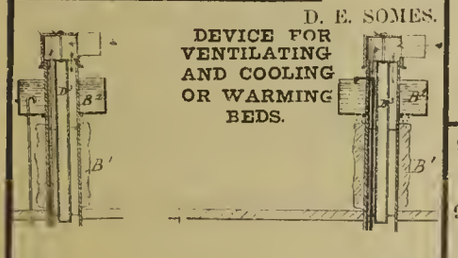


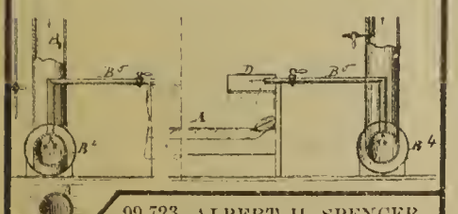
JOHN W. X. SMITH. 99,720, CHURNS.



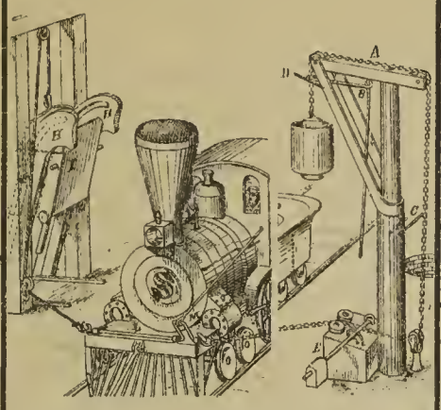
99,721, WM. H. SMITH. CARTRIDGES.

99,722. D. E. SOMES. DEVICE FOR VENTILATING AND COOLING OR WARMING BEDS.

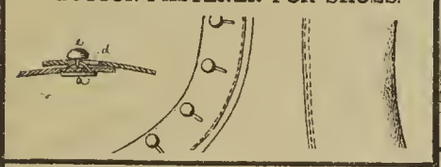




99,723, ALBERT H. SPENCER. LOCOMOTIVE-TENDER LOADER



99,724, CHAS. F. SPENCER. BUTTON-FASTENER FOR SHOES.



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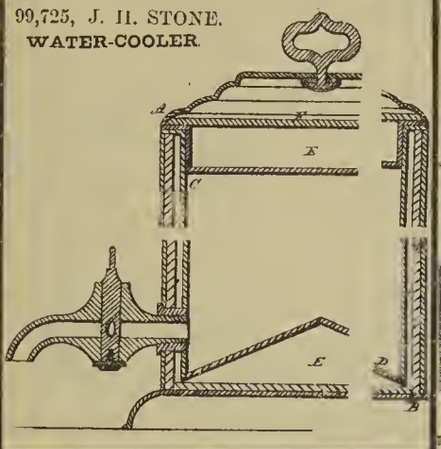
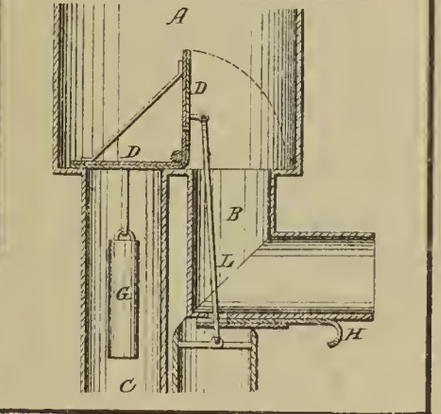


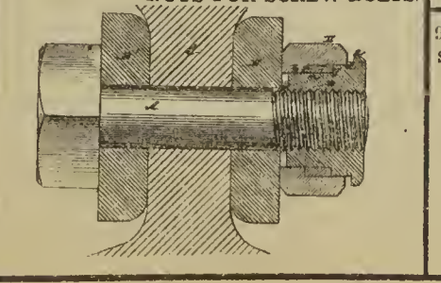
99,726, DAVID STUART. LEWIS BRIDGE. FENDER FOR FIRE-PLACE HEATERS.

99,727, D. F. SWEET. AUTOMATIC WATER CUT-OFFS.



99,728, JOSEPH A. TATRO. PROCESS OF TREATING PETROLEUM.

99,729, NATHAN THOMPSON. NUTS FOR SCREW-BOLTS.



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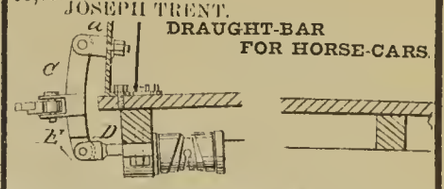

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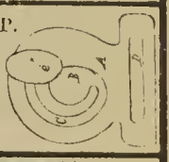
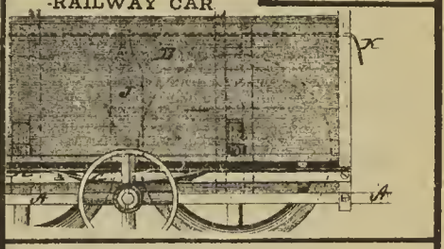
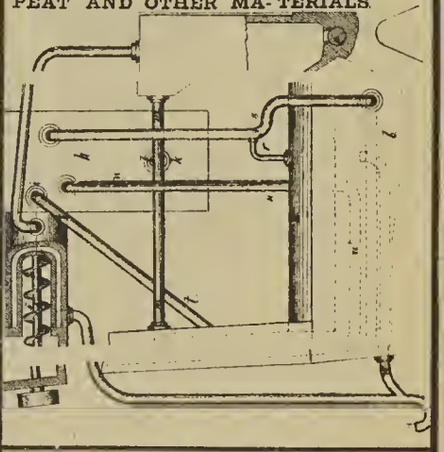


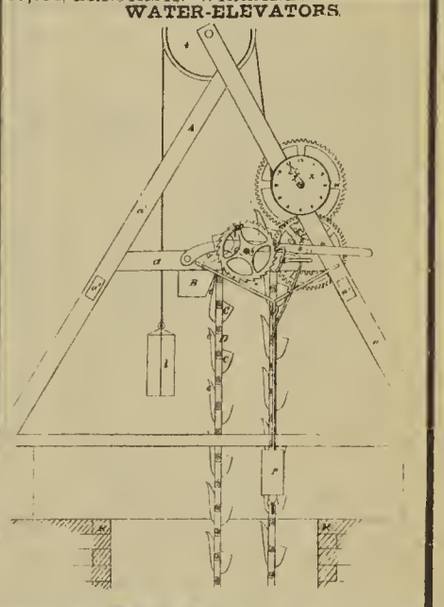
MAHLON P. TURNER. 99,732. STREET-RAILWAY CAR.



99,733, THOS. GEO. WALKER. DANIEL S. YOUNG. EXPELLING VOLATILE MATTER FROM PEAT AND OTHER MATERIALS.

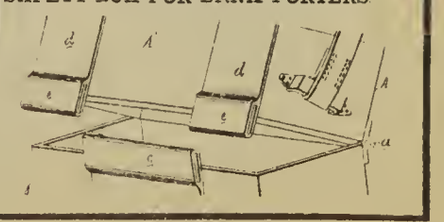


99,734, BENJAMIN WIELAND. WATER-ELEVATORS.

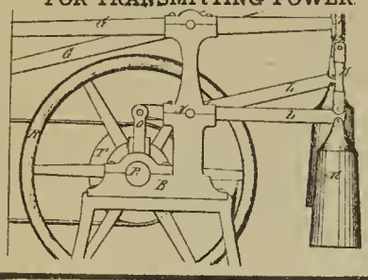


99,735, SALMON W. WILDER. CLEANSING PAPER, WHEN REDUCED TO PULP, FROM COLORING MATTERS.

99,736 WILLIAM WILER. SAFETY-BOX FOR BANK PORTERS.



99,737, BLASIUS WILLIAMS. APPARATUS FOR TRANSMITTING POWER.



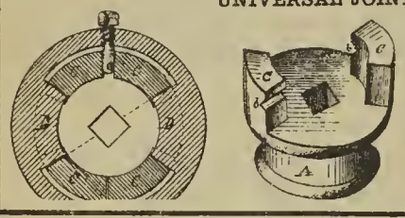
99,738, HENRY WURTZ. ARTIFICIAL FUEL.

99,739, HENRY WURTZ. COMPOSITION FOR MOULDINGS, PICTURE-FRAMES.

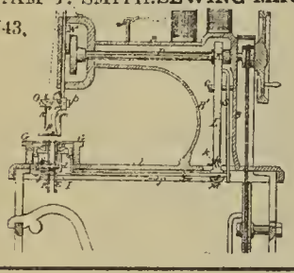
99,740, HENRY WURTZ. PREPARING ANHYDROUS GRAHAMITE.

99,741, HENRY WURTZ. CHEMICAL PRODUCT CALLED FUSED OR ANHYDROUS GRAHAMITE.

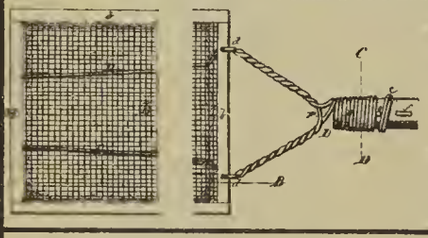
99,742, ANTON ZWIEBEL. UNIVERSAL JOINT.



WILLIAM T. SMITH. SEWING-MACHINES. 99,743.



3,821, J. H. BIGELOW. CORN-POPPER.



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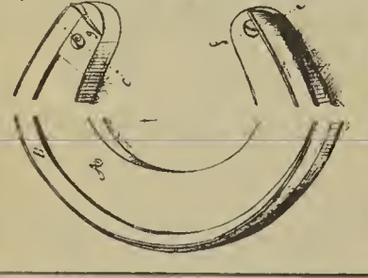

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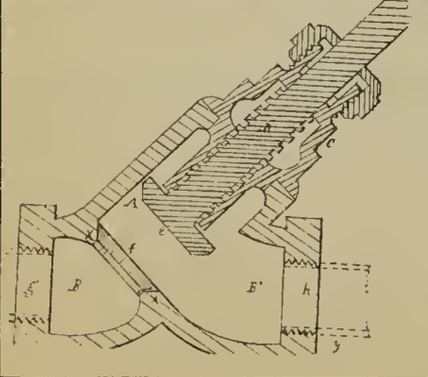
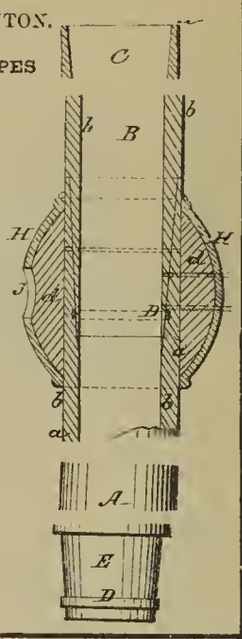
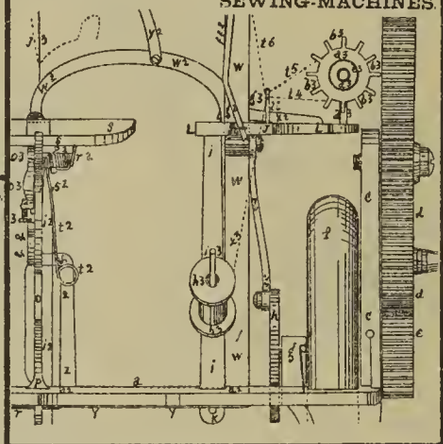


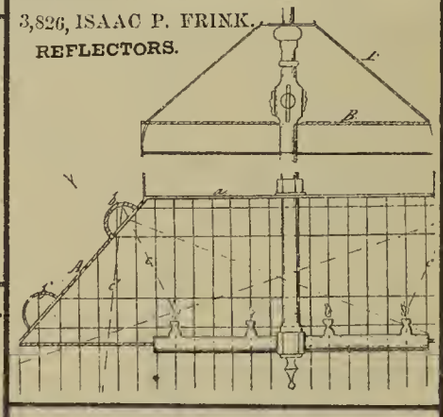
3,824, EDWIN DAYTON. CEMENT WATER-PIPES



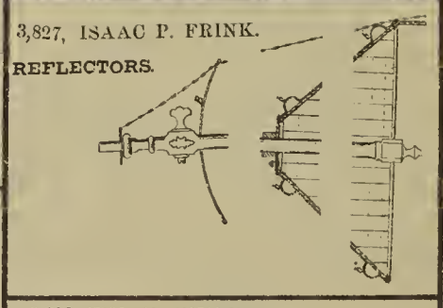
3,825, GEORGE L. DULANEY. SEWING-MACHINES.



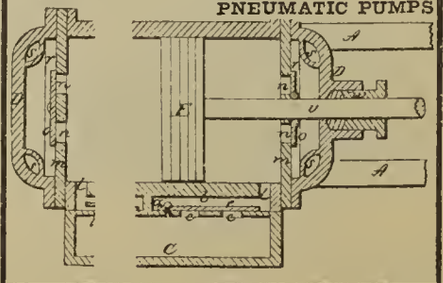
3,826, ISAAC P. FRINK. REFLECTORS.



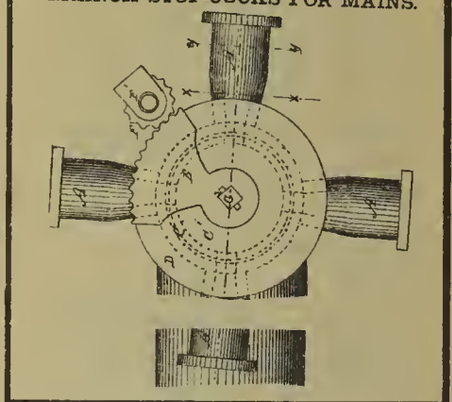
3,827, ISAAC P. FRINK. REFLECTORS.



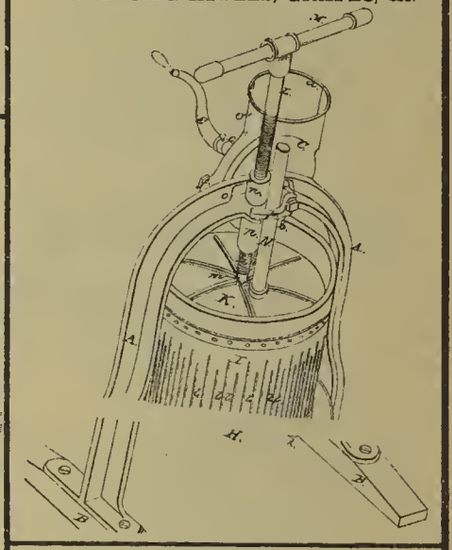
3,828, WM. H. GUILD. PNEUMATIC PUMPS



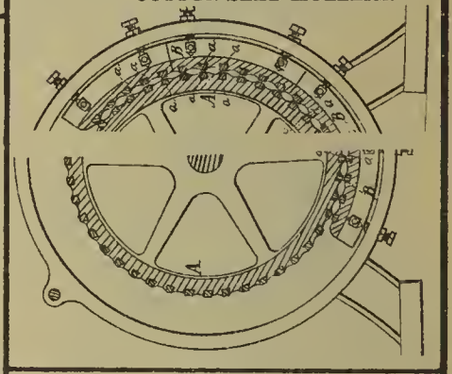
3,829, R. A. HILL. BRANCH STOP-COCKS FOR MAINS.



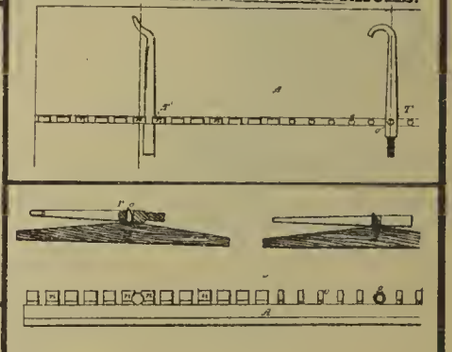
3,830, C. B. HUTCHINSON. MACHINE FOR GRINDING AND PRESSING APPLES, GRAPES, &c.



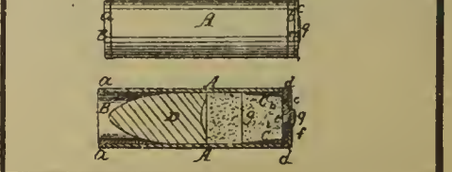
3,831, PIERRE PAUL JOSEPH MARTIN. COTTON-SEED HULLERS.



3,832, I. A. SALMON. DENTISTS' TOOL-RACKS.



3,833, ROLLIN WHITE. METALLIC CARTRIDGES.



ILLUSTRATIONS OF PATENTS
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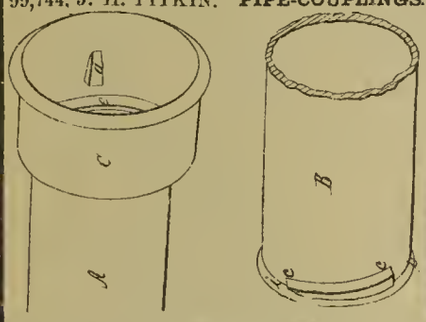
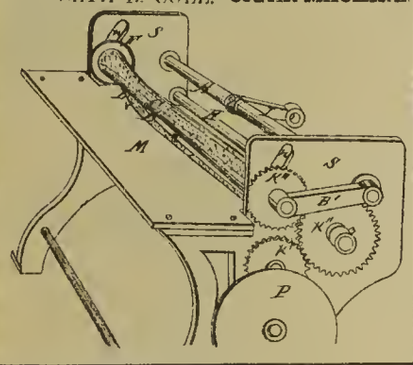
FEBRUARY 15, 1870.

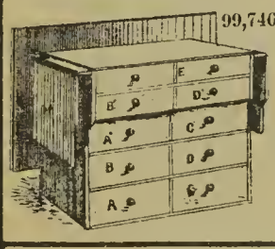
WM. D. ALFORD.
99,744. J. H. PITKIN. **PIPE-COUPLINGS.**



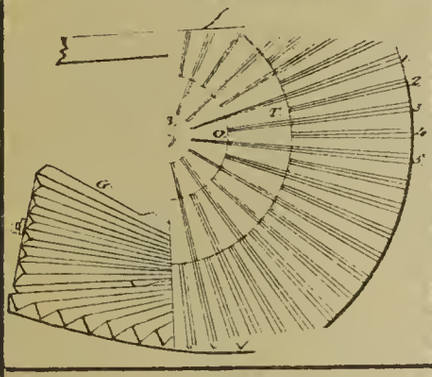
99,745, WM. G. AYRES.
SETH L. COLE. **CIGAR-MACHINE.**



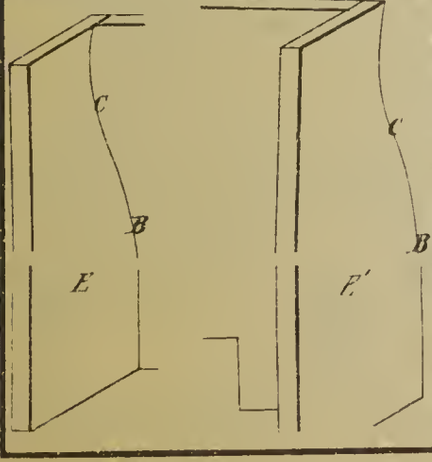
99,746,
ROBT. BACON.
CABINET.



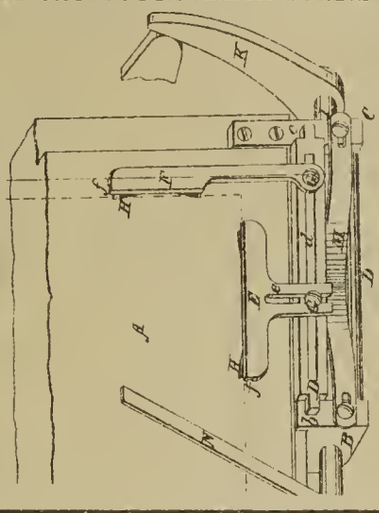
99,747. FORTUNE L. BAILEY.
WASHING-MACHINE.



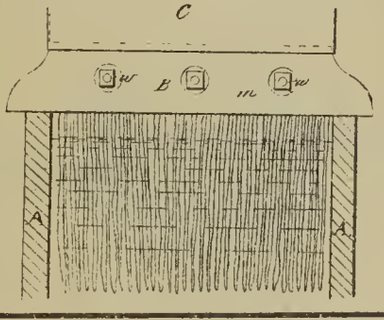
99,748, JAS. I. BARD. **FIRE-PLACE BACK.**



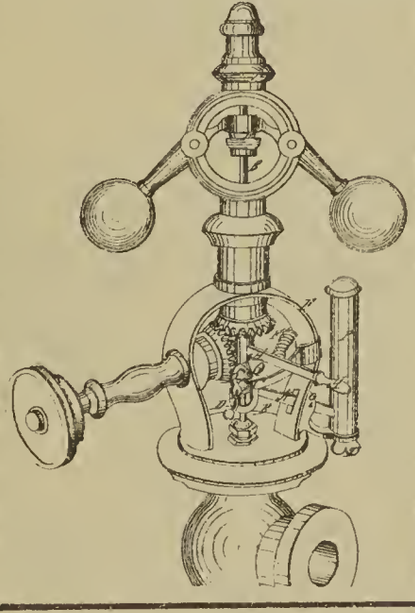
99,749, HENRY BARTH. **GRIPPERS AND GAUGES FOR PRINTING-PRESSES.**



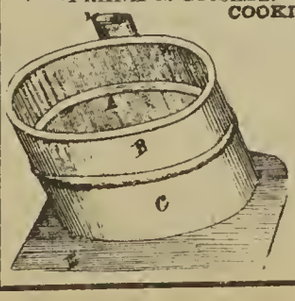
99,750, CHARLES BARTON. **FRAME FOR DYEING IN VARIOUS COLORS FOR MANUFACTURE OF SCOTCH PLAIDS, &c.**



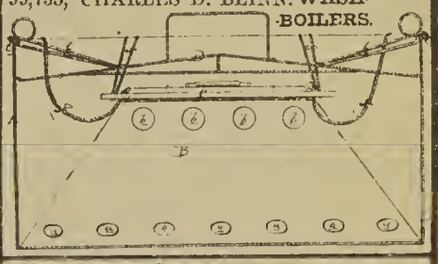
99,751, JOSEPH BELL. **GOVERNORS FOR STEAM AND OTHER ENGINERY.**



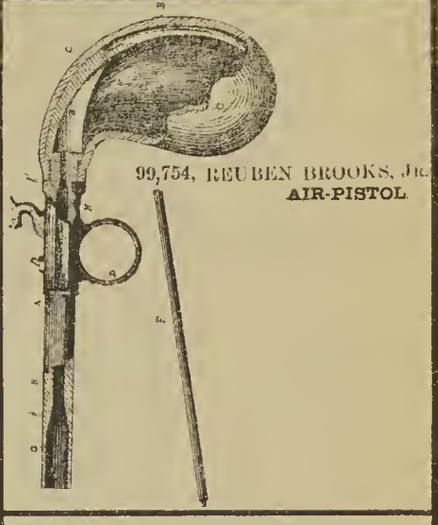
99,752, FRANK S. BISSELL.
COOKING-STOVES.



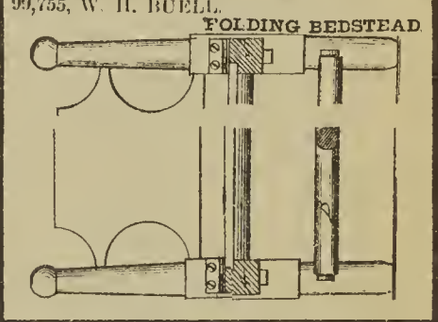
99,753, CHARLES D. BLINN. **WASH-BOILERS.**



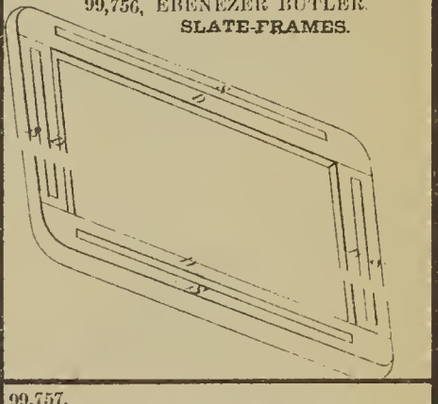
99,754, REUBEN BROOKS, JR.
AIR-PISTOL.



99,755, W. H. BUELL.
FOLDING BEDSTEAD.

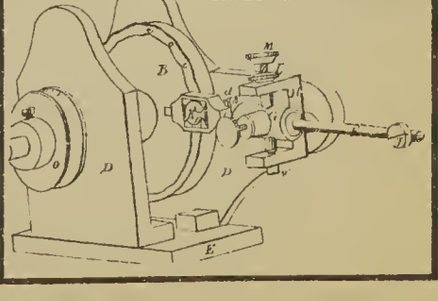


99,756, EBENEZER BUTLER.
SLATE-FRAMES.

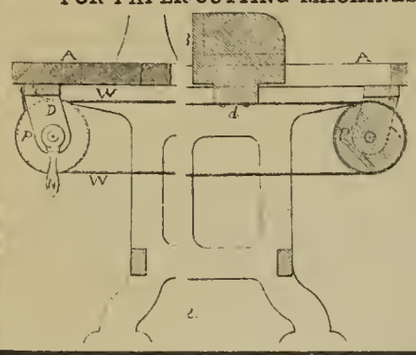


99,757,
GEO. W. CASILEAR. **BANK NOTES, BONDS, REVENUE STAMPS.**

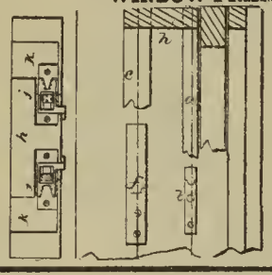
99,758, GEO. W. CASILEAR.
RULING-MACHINES.



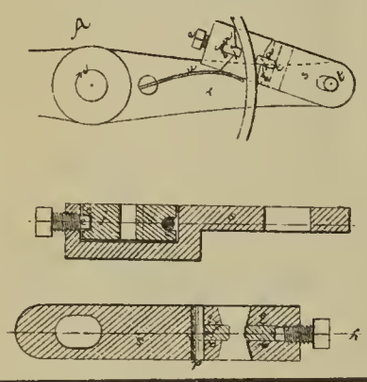
99,759, CYRIL C. CHILD. GAUGES FOR PAPER-CUTTING MACHINES.



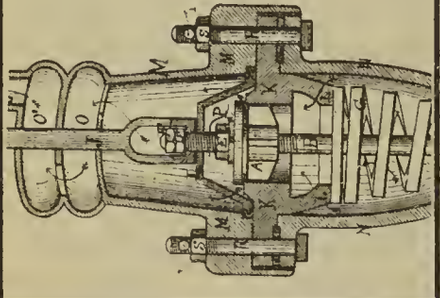
99,760, A. J. CLEVELAND. WINDOW-FRAME.



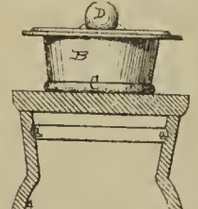
99,761 MOSES G. CRANE. A. M. POLSEY. FRICTION-CLUTCH MECHANISM.



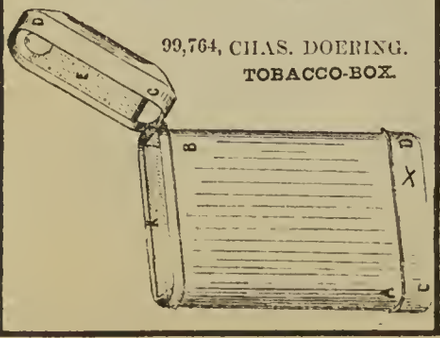
99,762, GEO. W. CUSHING. SAFETY-VALVES.



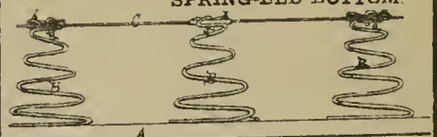
99,763. W. H. DANIELS FRUIT JAR.



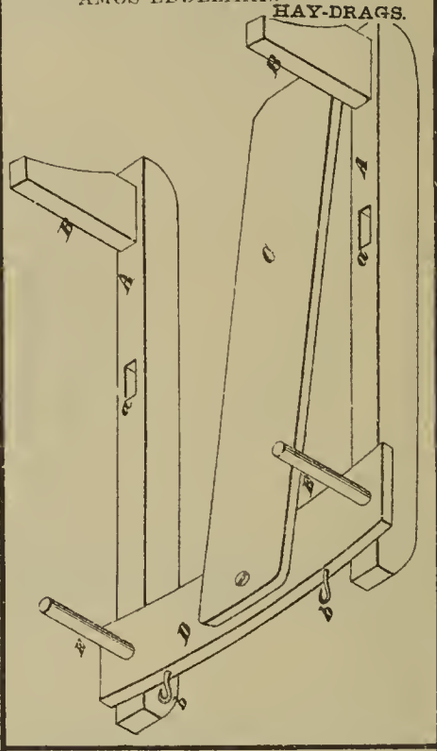
99,764, CHAS. DOERING. TOBACCO-BOX.



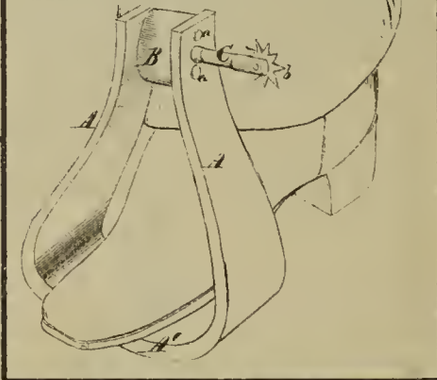
99,765, CHARLES H. DUNKS SPRING-BED BOTTOM.



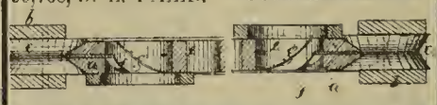
99,766. DANIEL EDDELMAN. AMOS EDDELMAN. HAY-DRAGS.



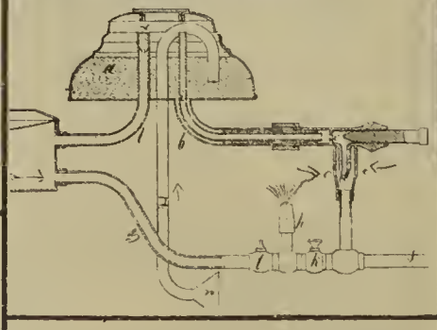
99,767, HENRY FELLOWS. STIRRUP AND SPUR FOR SADDLES.



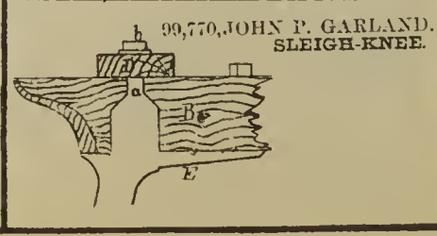
99,768, D. E. FIELD. CORN-SHELLERS.



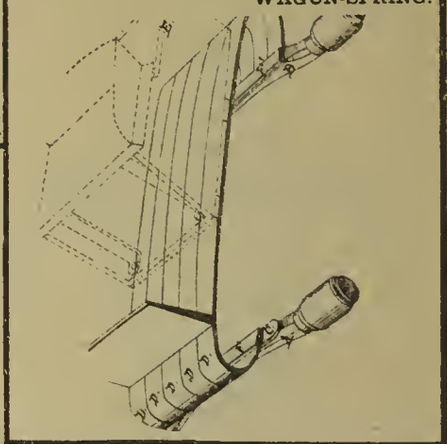
99,769, JOHN GAIR. GAS-CARBURETING APPARATUS.



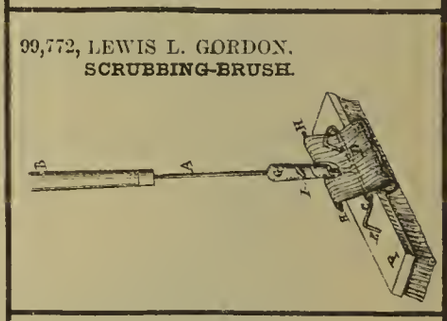
99,770, JOHN P. GARLAND. SLEIGH-KNEE.



99,771, LEWIS L. GORDON. WAGON-SPRING.

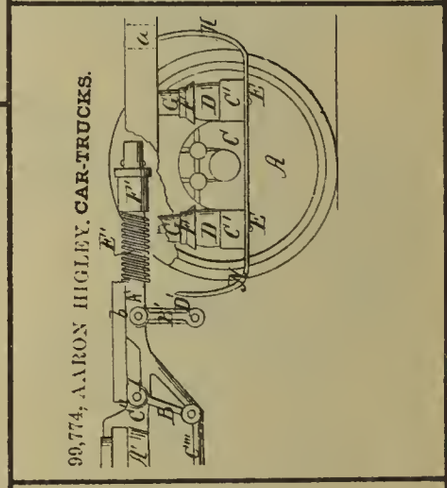


99,772, LEWIS L. GORDON. SCRUBBING-BRUSH.

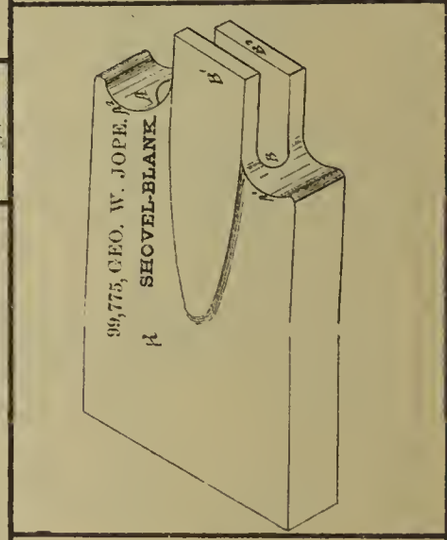


99,773, CARL GÜNTHER. PROCESS AND MATERIAL FOR ORNAMENTING TEXTILE FABRICS.

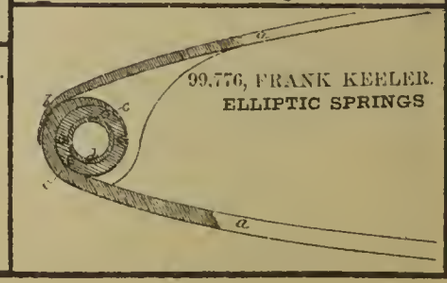
99,774, AARON HIGLEY. CAR-TRUCKS.



99,775, GEO. W. JOPE. SHOVEL-BLANK.



99,776, FRANK KEELER. ELLIPTIC SPRINGS



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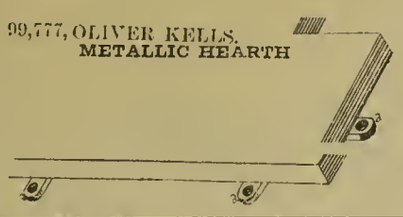
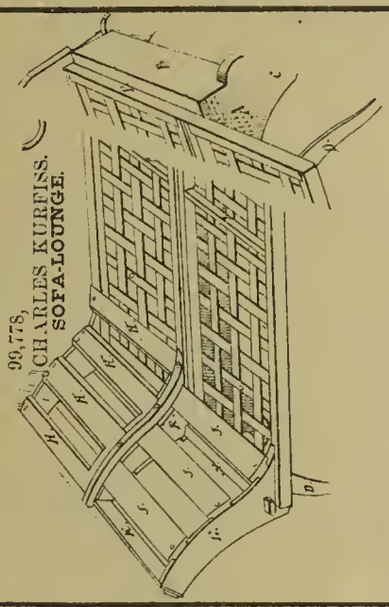
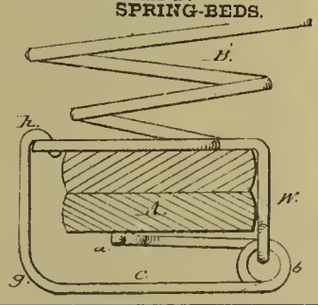
METALLIC HEARTH



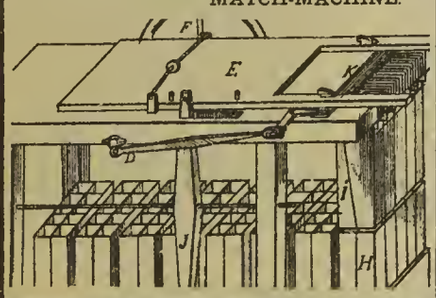
99,778, CHARLES KURFISS.
SOFA-LOUNGE.



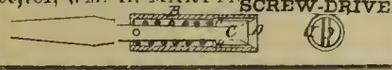
99,779, HERMON W. LADD.
GEORGE F. LADD.
SPRING-BEDS.



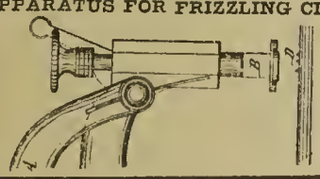
99,780, L. T. LUTHER.
MATCH-MACHINE.



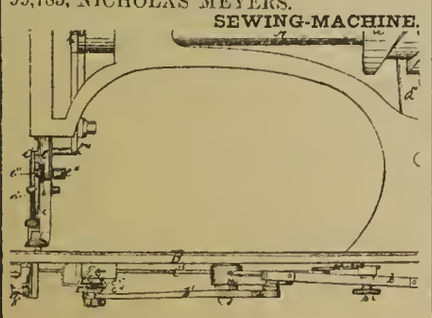
99,781, WM. H. MARTYN. SCREW-DRIVERS.



99,782. SCHAMUMORITZ MOSCHCOWITZ.
APPARATUS FOR FRIZZLING CLOTH.

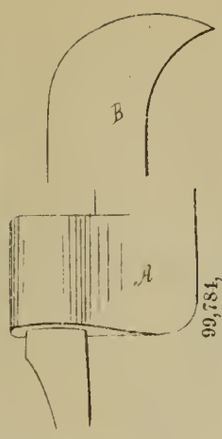


99,783, NICHOLAS MEYERS.
SEWING-MACHINE.

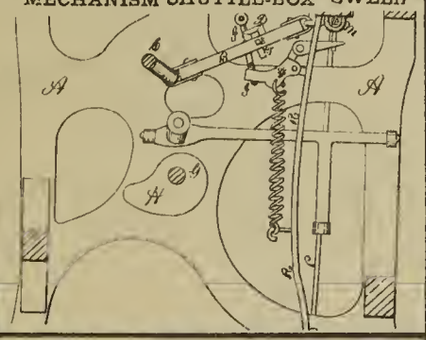


99,785, ELIAS G. OST.
FASTENING HANDLES TO CUTLERY.

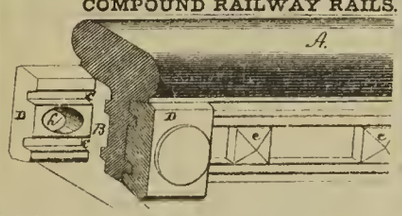
99,784, PHILETUS W. NORRIS.
GRUBBING-AX AND HOOK COMBINED.



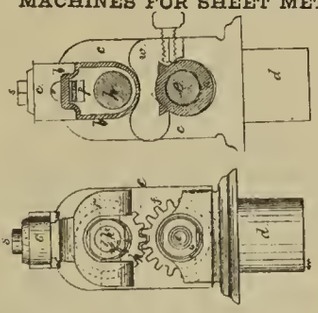
99,786, JOSEPH POTTER.
FOR RELIEVING THE PRESSURE ON MECHANISM SHUTTLE-BOX SWELL.



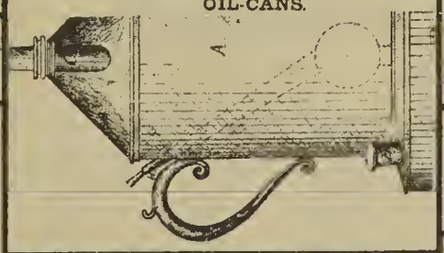
99,787, DANIEL R. PRATT.
COMPOUND RAILWAY RAILS.



99,788, C. H. RAYMOND. BEADING MACHINES FOR SHEET METAL.

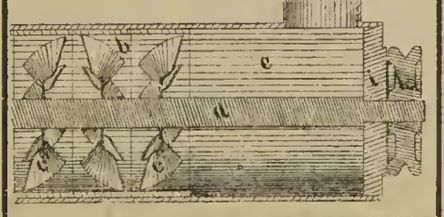


99,789, PATRICK SCANLAN.
OIL-CANS.

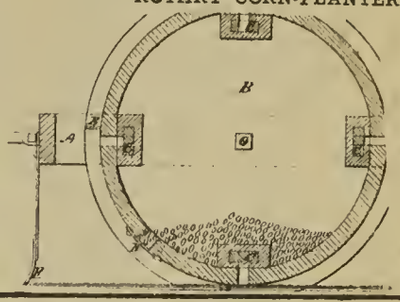


99,790, JOHN L. SECOMB.
SPRING BED-BOTTOM.

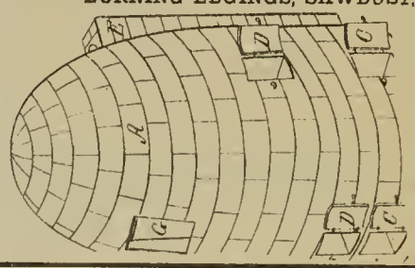
99,791, THOMAS SHAW.
COMPOUND PROPELLER PUMPS.



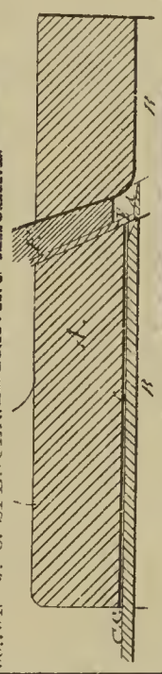
99,792, JOHN W. his SIMONTON. mark
SELF-WORKING ROTARY CORN-PLANTER.



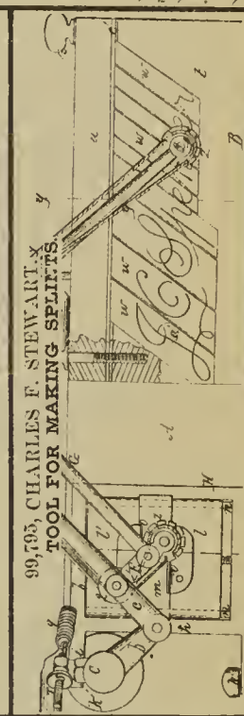
99,793, IRA O. SMITH.
BURNING EDGINGS, SAWDUST.



99,794. J. C. SPENCER. ENGRAVING MACHINE.



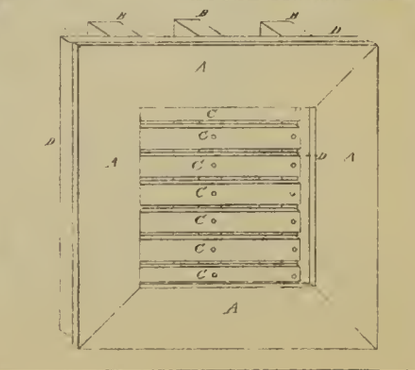
99,795, CHARLES F. STEWART.
TOOL FOR MAKING SPLINTS.



99,796, M. VANWORMER. FENCE.

99,797, GEO. J. WARDWELL.
HARVESTER KNIVES.

99,798, J. R. WEBBER.
HOUSE TRIMMINGS.



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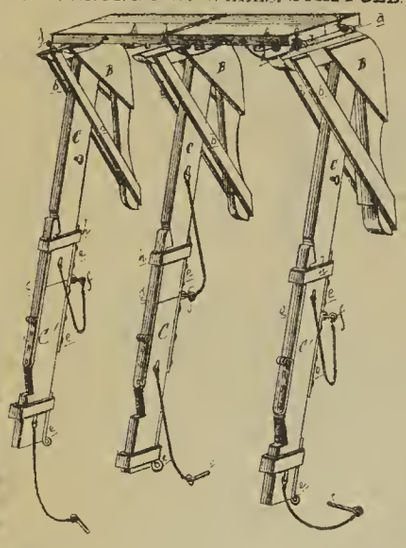
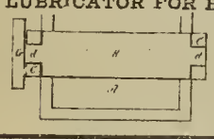
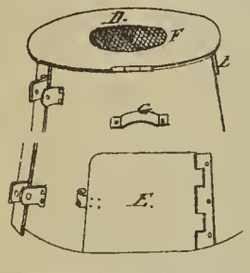


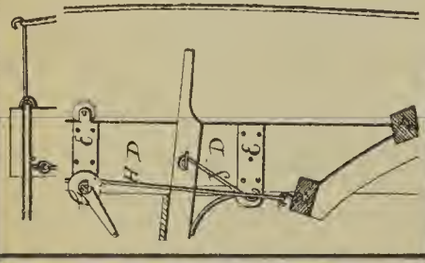
99,800, PEREGRINE WHITE.
LUBRICATOR FOR BEARINGS OF SHAFTS.



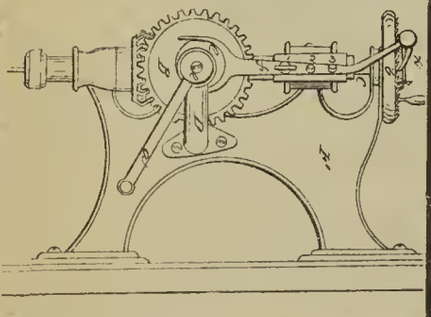
99,801, HENDERSON WILLARD.
STOVE FOR BURNING STUMPS.



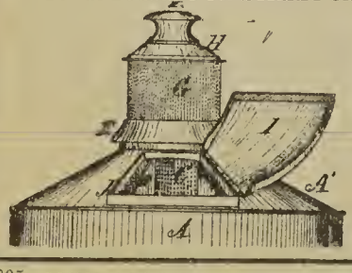
99,802, GEO. G. WINANS.
ELEVATING APPARATUS.



99,803, EDWARD J. WORCESTER.
DRILLING-MACHINE.



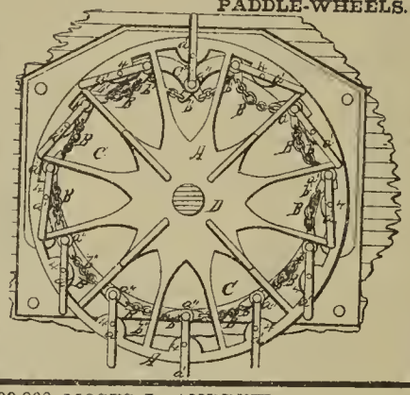
99,804, W. H. YOUNG.
FARE-BOXES FOR STREET-CARS.



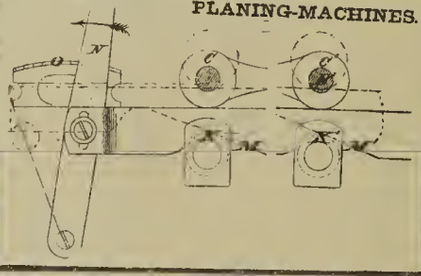
99,805, JOHN ABSTERDAM. PROCESS OF WELDING CAST OR BESSEMER STEEL.

99,806, J. A. ADAMS.
MODE OF COVERING MOLDS AND OTHER ARTICLES WITH A METALLIC SURFACE.

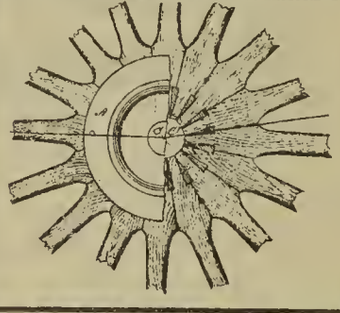
99,807, DAVID ANDERSON.
PADDLE-WHEELS.



99,808, MOSES L. ANDREW.
PLANING-MACHINES.



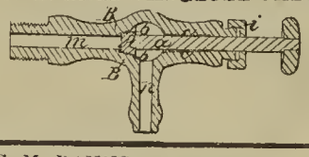
99,809, SIMEON ATHA.
CARRIAGE-WHEEL HUBS.



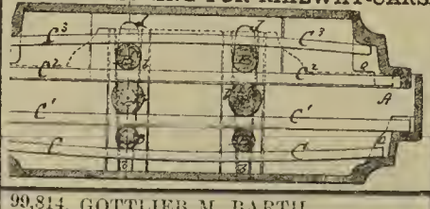
99,810, LORING ATWOOD.
EDWARD RIPLEY.
WOOD-TURNING LATHE.

99,811, JACOB M. AUSTIN.
SOAP MIXTURE.

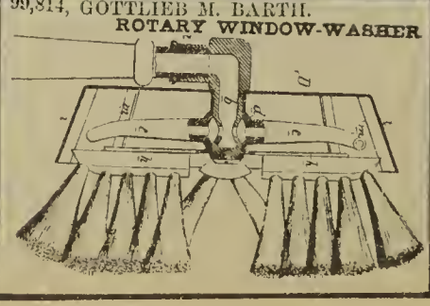
99,812, J. W. BALDWIN. GLOBE-VALVES.



99,813, C. M. BANKS.
SPRING FOR RAILWAY-CARS.



99,814, GOTTLIEB M. BARTH.
ROTARY WINDOW-WASHER.



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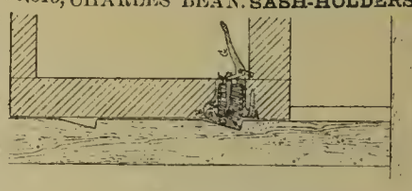
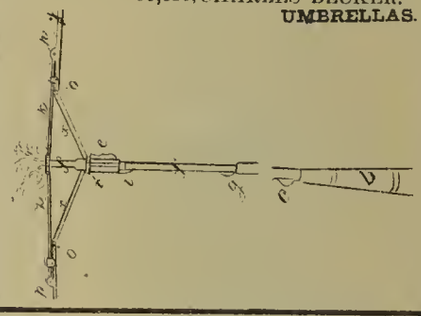
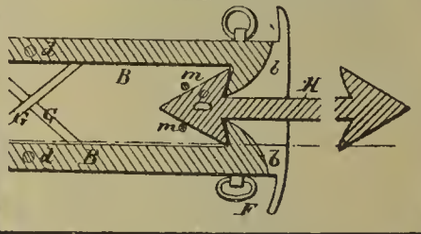


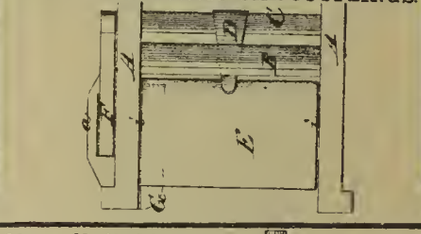
99,816, CHARLES BECKER.
UMBRELLAS.



99,817, W. W. BELL. CAR COUPLING.



99,818, CHARLES W. BENSON.
RAILWAY CAR-COUPLINGS.



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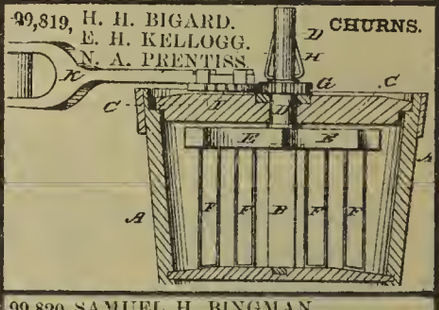
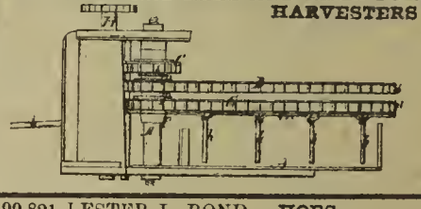
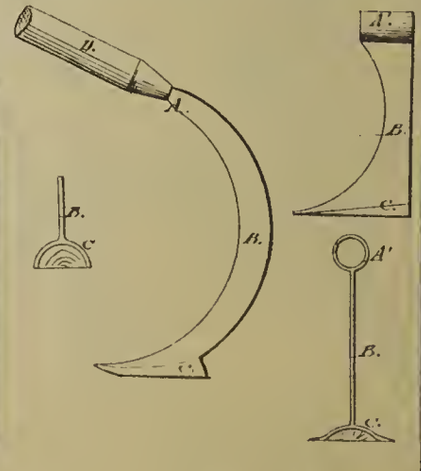
E. H. KELLOGG.
N. A. PRENTISS.
CHURNS.



99,820, SAMUEL H. BINGMAN.
COMBINED REEL AND RAKE FOR HARVESTERS



99,821, LESTER L. BOND. HOES.



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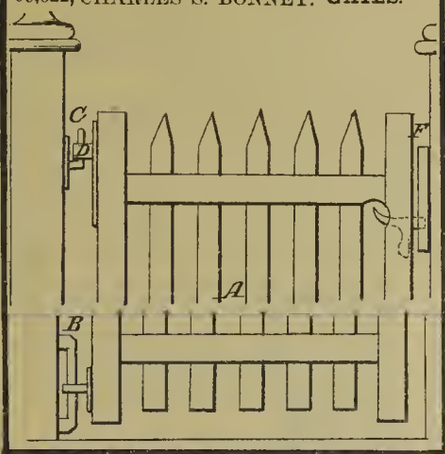
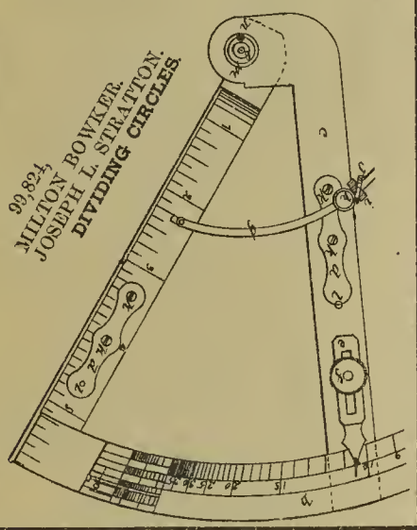
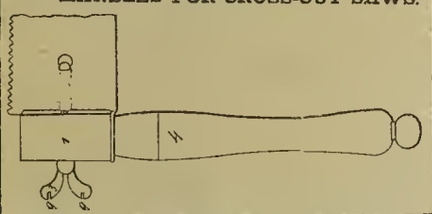


99,823, HENRY C. BOEGNER. **INDIGO SOAP.**

99,824, MILTON BOWKER. JOSEPH L. STRATTON. **DIVIDING CIRCLES.**



99,825, E. M. BOYNTON. **HANDLES FOR CROSS-CUT SAWS.**



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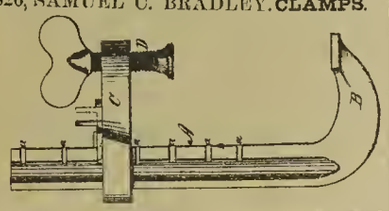

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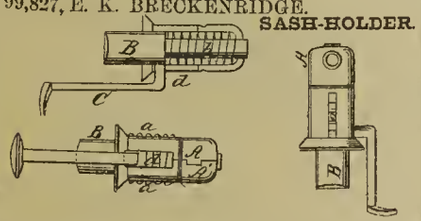

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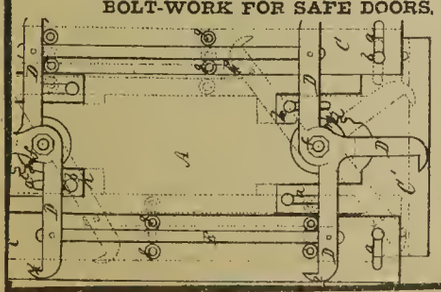
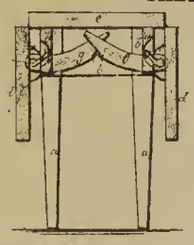
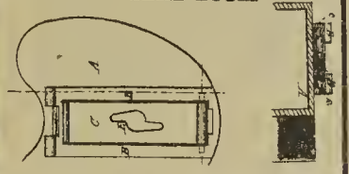


99,829, WARREN R. BRIGGS. **TABLE-LEAF SUPPORT.**

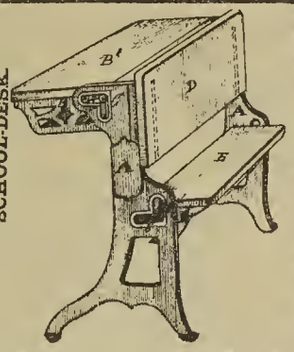


99,830, T. E. C. BRINLY. **PLOWS**

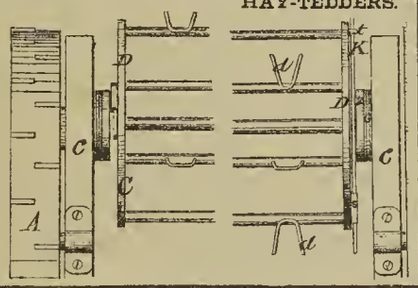
99,831. F. W. BROOKS. **SEAL LOCK.**



99,832, JOHN DAVID BROWNE. **SCHOOL-DESK.**

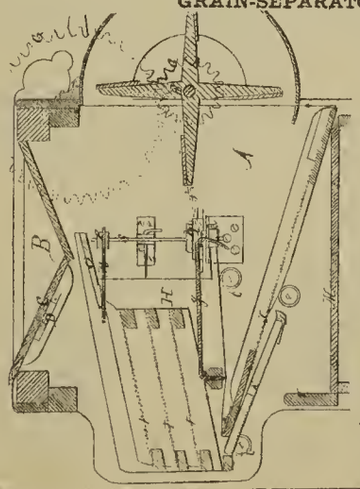


99,833, ROBERT BRYSON. **HAY-TEDDERS.**



99,834, M. H. BUCHANAN. **BRIDLE.**

99,835, HIRAM BURDICK. **GRAIN-SEPARATORS.**



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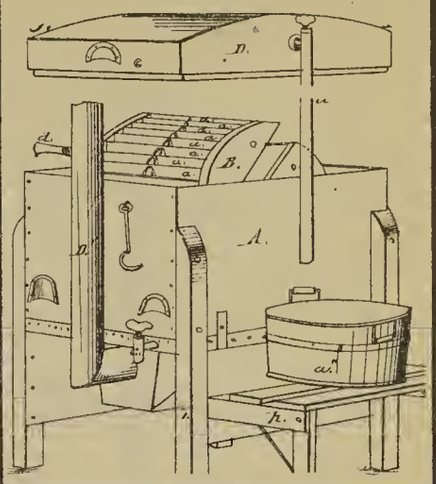
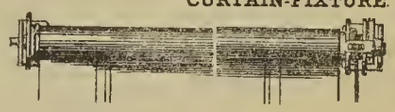
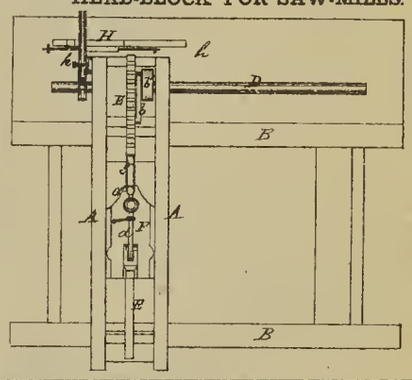


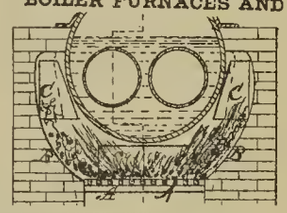
99,837, THOMAS BURGIN. **CURTAIN-FIXTURE.**



99,838, JOHN H. BURKET. GEORGE BURKET. **HEAD-BLOCK FOR SAW-MILLS.**



99,839, W. H. BURNS. **BOILER FURNACES AND FLUES.**



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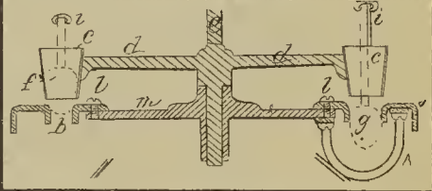

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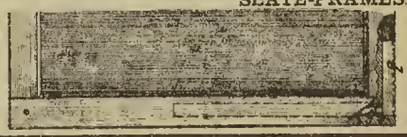

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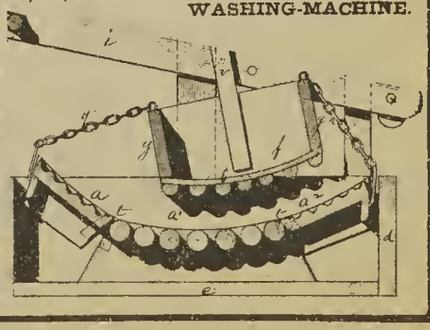
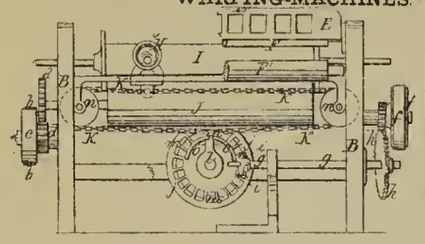
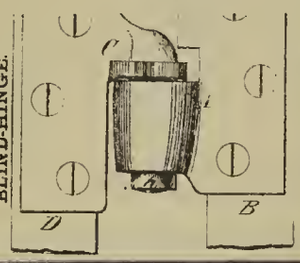


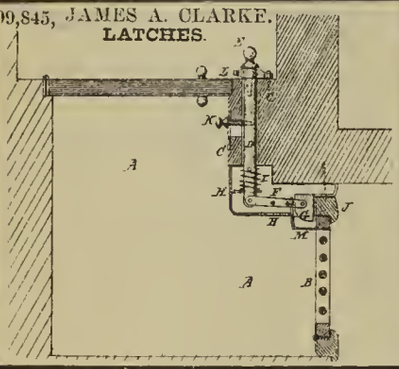
99,843, DUNCAN McFARLANE.
SAMUEL CAMPBELL.
WARPING-MACHINES.



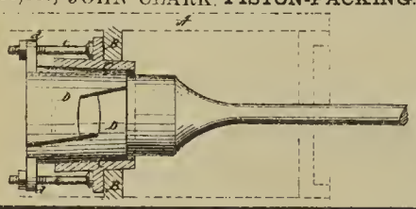
99,844,
CHAS. B. CLARK.
BLIND-HINGE.



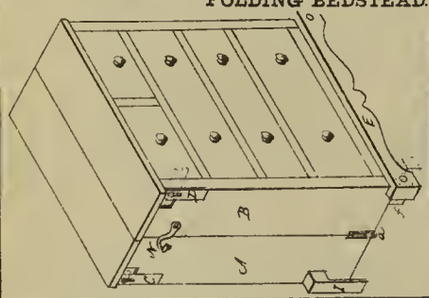
99,845, JAMES A. CLARKE.
LATCHES.



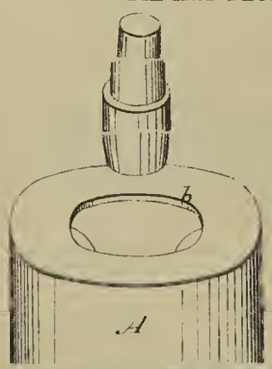
99,846, JOHN CLARK. PISTON-PACKING.



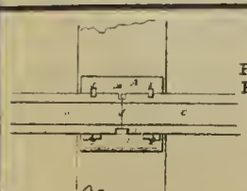
99,847, THOMAS G. CLIFFORD.
FOLDING BEDSTEAD.



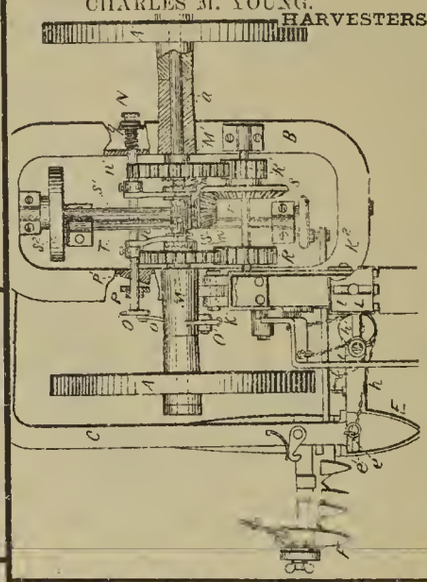
99,848, J. H. COLE. DIE AND PLUNGER.



99,849,
HIRAM COOK.
FISH-JOINTS FOR
RAILWAY-RAILS.

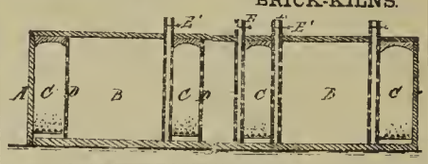


99,850, GRANT T. COOLMAN.
CHARLES M. YOUNG.
HARVESTERS.



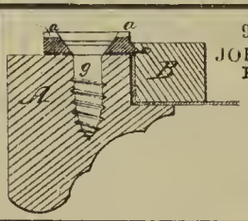
99,851, ALMOND F. COOPER.
CARRIAGES AND OTHER VEHICLES.
WHEEL FOR

99,852, RICHARD D. COX.
BRICK-KILNS.



99,853, GERMOND CRANDELL.
INSTRUMENT FOR DESCRIBING SPIRALS

99,854,
JOHN D. CROCKER.
PICTURE-FRAME
FASTENING.



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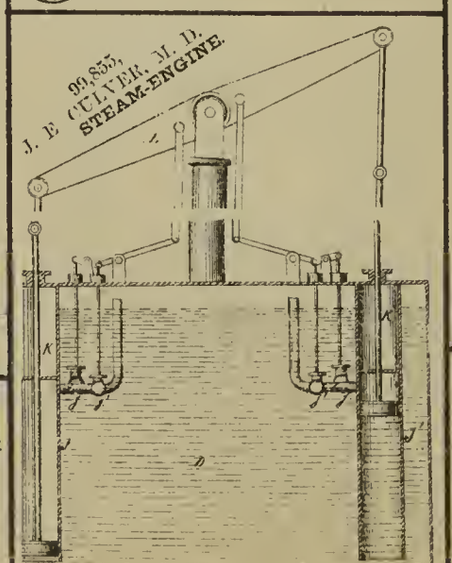
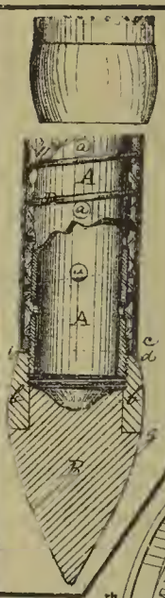
J. B. CLIVER, M. D.
STEAM-ENGINE.



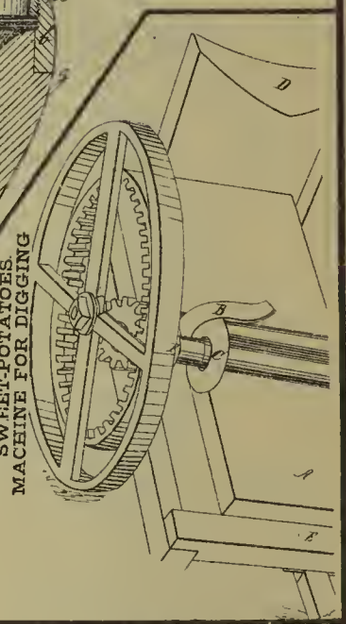
99,856, THOMAS H. CURREY.
IMPROVED PAINT.

99,857, JOHN S. DAGGETT.
TO FLOORS OF RAILROAD-CARS.
DEVICE FOR ATTACHING SPITTOONS

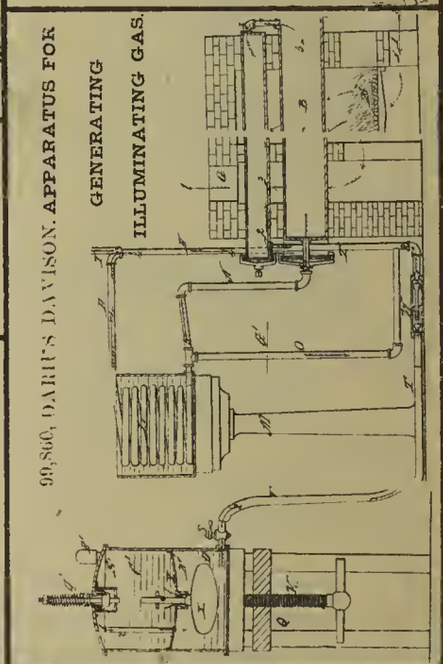
99,858,
D. A. DANFORTH.
DRIVE WELL-TUBES



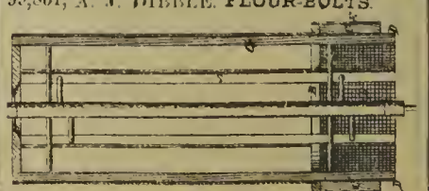
99,859,
ROBERT DARLINGTON.
ELVY L. WATSON.
SWEET-POTATOES.
MACHINE FOR DIGGING



99,860, DARIUS DAVISON. APPARATUS FOR
GENERATING
ILLUMINATING GAS.



99,861, A. J. DIBBLE. FLOUR-BOLTS.



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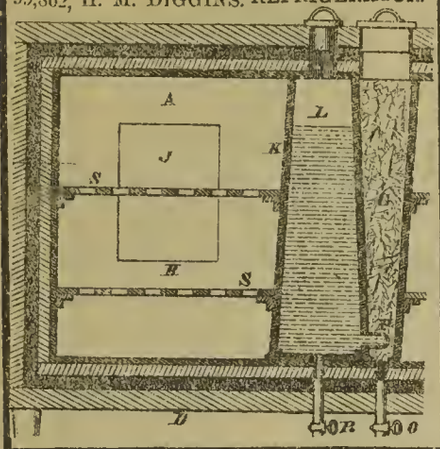
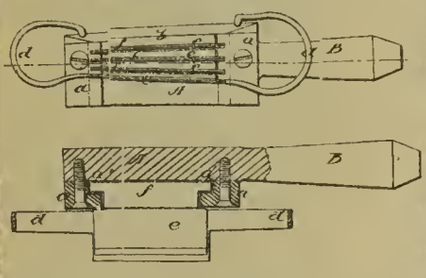
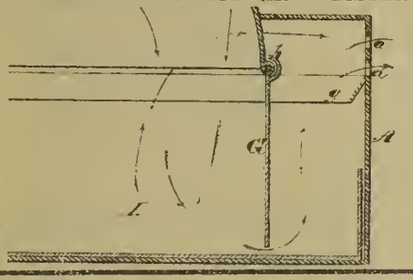


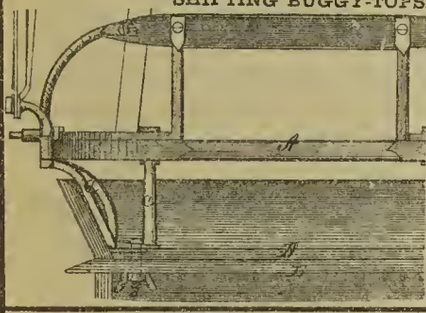
99,863, A. W. DORR. TOOL FOR CHECKING TIMBER.



99,864, OCTAVIUS A. EBERT. ATTACHMENT FOR HOT-AIR REGISTERS.

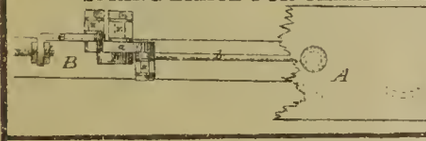


99,865, DAVID ELDRIDGE. SHIFTING BUGGY-TOPS.

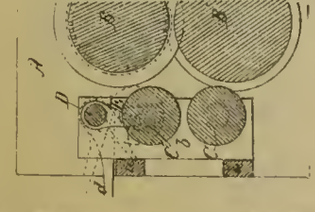


99,866, SETH C. ELLIS. MACHINE FOR LAYING OUT DOORS AND SASH.

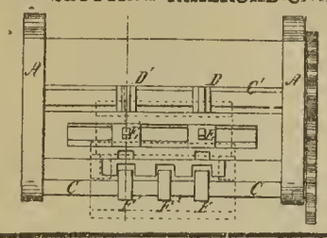
99,867, WILLIAM EVANS. SPRING-BRACE FOR CARRIAGES.



99,868, DAVID EYNON. MACHINE FOR ROLLING RAILROAD-CHAIRS.

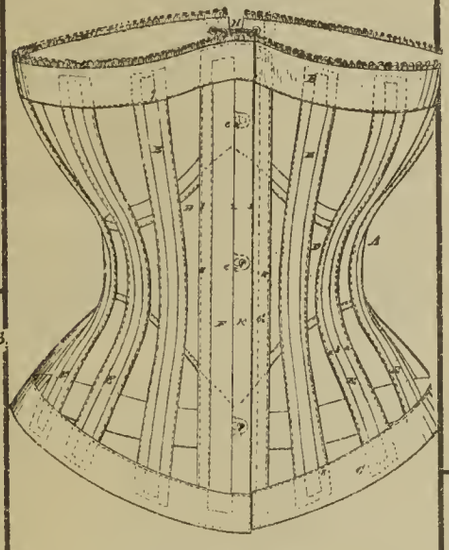


99,869, DAVID EYNON. MACHINE FOR SLOTTING RAILROAD-CHAIRS.



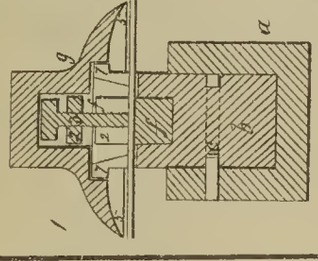
99,870, PETER FALARDO. GEO. H. SNOW. HAND CLOTHES-WASHER.

99,871, D. H. FANNING. SKELETON CORSETS.

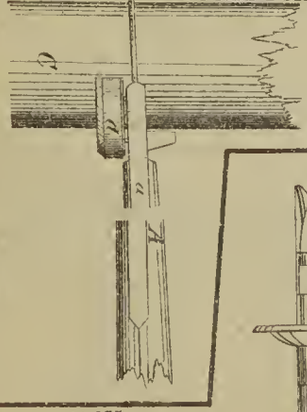


99,872, GEO. K. FARRINGTON. COMBINATION PADLOCKS.

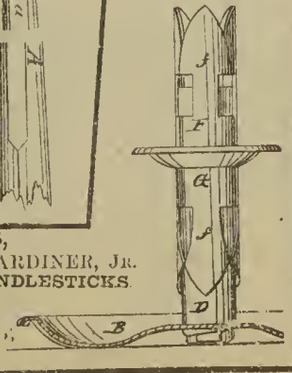
99,873, S. L. FINLEY. INSULATORS FOR TELEGRAPHS.



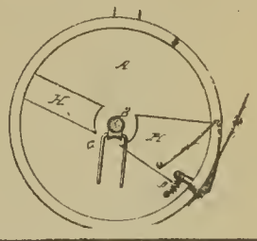
99,874, EUGENE G. GAILLAC. BOOMS FOR VESSELS.



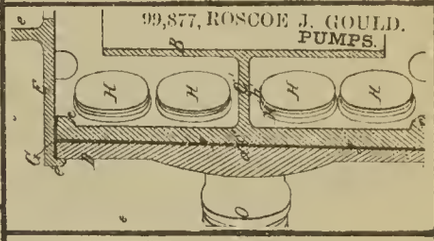
99,875, SAML. GARDINER, JR. CANDLESTICKS.



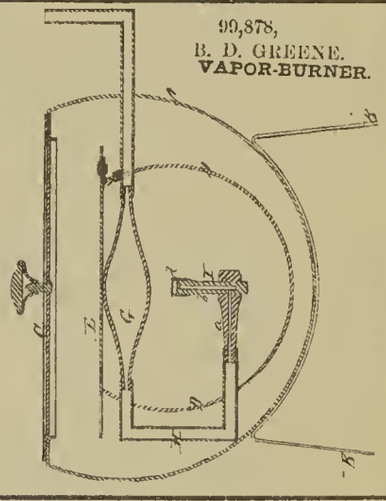
99,876. R. H. GILBERT. BLOWING APPARATUS.



99,877, ROSCOE J. GOULD. PUMPS.



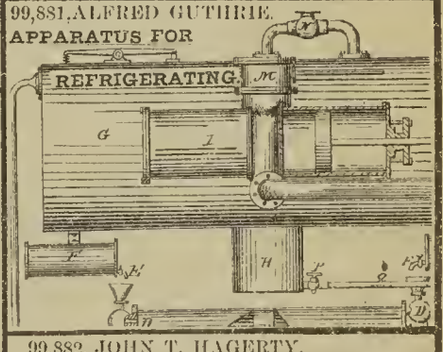
99,878, B. D. GREENE. VAPOR-BURNER.



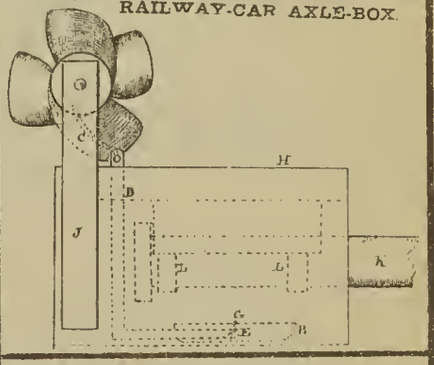
99,879, ERNEST GREENFIELD. MANUFACTURE OF LOZENGES AND CONFECTIONERY.

99,880, ERNEST GREENFIELD. CRACKERS, OR MEAT BISCUITS.

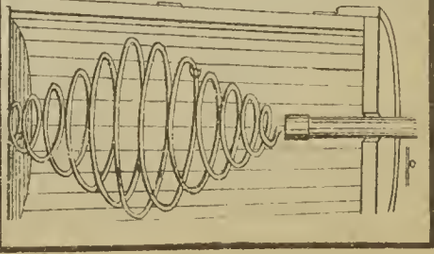
99,881, ALFRED GUTHRIE. APPARATUS FOR REFRIGERATING.



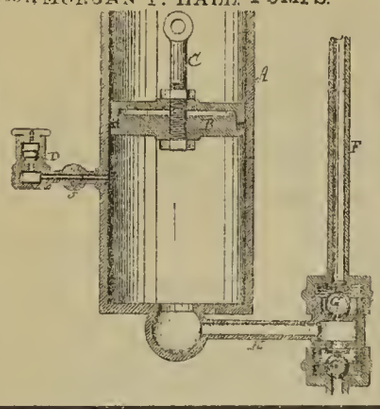
99,882, JOHN T. HAGERTY. RAILWAY-CAR AXLE-BOX.



99,883, W. H. HAINES. EGG-BEATER.

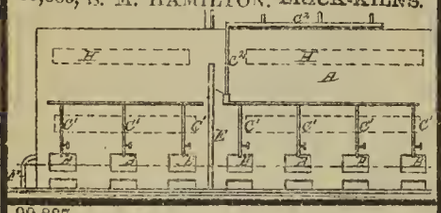


99,884, MORGAN P. HALL. PUMPS.



99,885, JNO. HALLIDAY.
COLORING MATTER TO BE USED IN VULCANIZED RUBBER.

99,886, S. M. HAMILTON. BRICK-KILNS.



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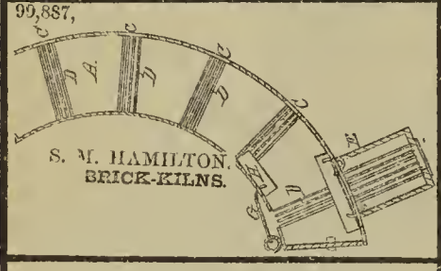
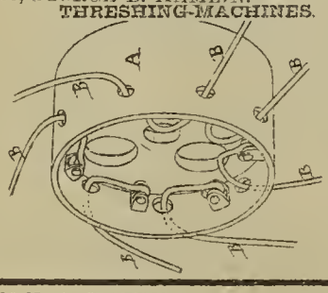
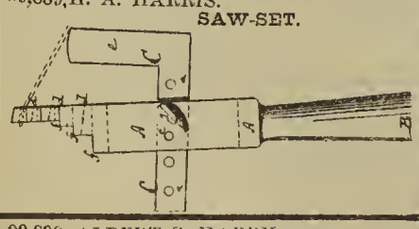


S. M. HAMILTON.
BRICK-KILNS.

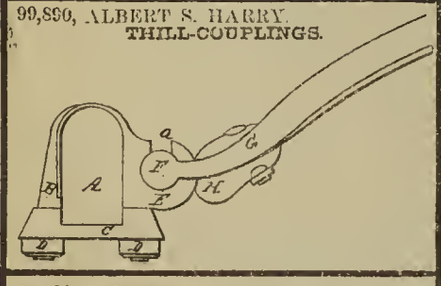
99,888, GEORGE B. HAMLIN.
THRESHING-MACHINES.



99,889, H. A. HARRIS.
SAW-SET.

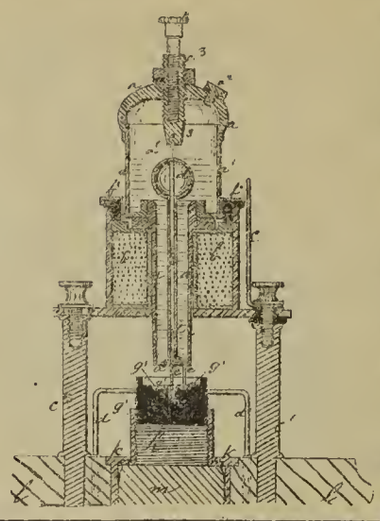


99,890, ALBERT S. HARRY.
THILL-COUPLINGS.



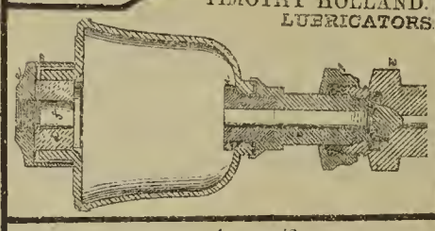
99,891, T. S. HATTERSLEY. SPLIT RING

99,892, E. S. HIDDEN. RELAYS FOR TELEGRAPHIC INSTRUMENTS.

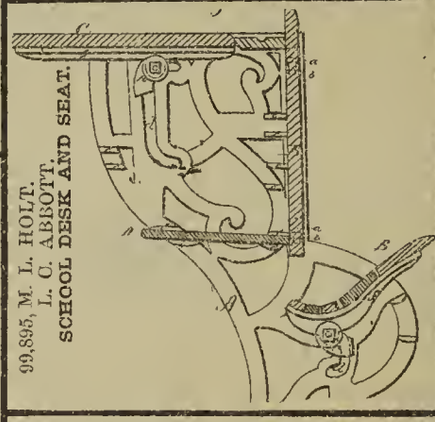


99,893, BYRON R. HILL.
REVOLVING FIRE-ARMS.

99,894,
TIMOTHY HOLLAND.
LUBRICATORS.

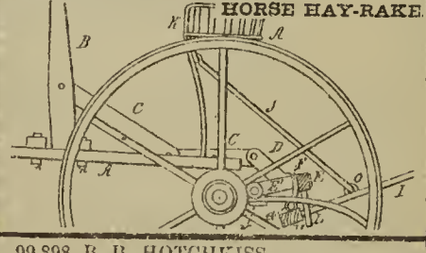


99,895, M. L. HOLT.
L. C. ABBOTT.
SCHOOL DESK AND SEAT.

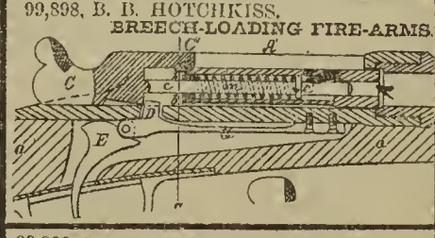


99,896, WILLIAM J. HOOPER.
THEODORE HOOPER.
TREATING FISH AND ANIMAL MATTERS TO OBTAIN OILS, FATS AND OTHER PRODUCTS.

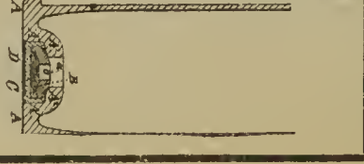
99,897, B. F. HORTON.
HORSE HAY-RAKE.



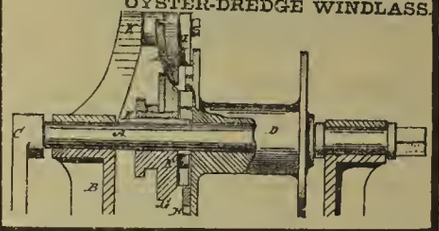
99,898, B. B. HOTCHKISS.
BREECH-LOADING FIRE-ARMS.



99,899, B. B. HOTCHKISS.
PRIMERS FOR CARTRIDGES.



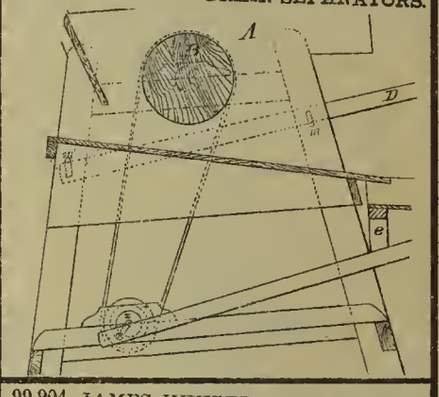
99,900, W. T. HOWARD.
OLIVER REEDER.
OYSTER-DREDGE WINDLASS.



99,901, JNO. HUGHES.
ATTACHMENT FOR LAMP-CHIMNEYS.

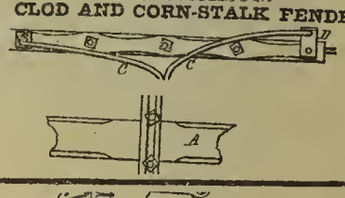
99,902, EDWIN JAMES HULBERT.
N. AUBIN.
ADJUSTABLE DIALS FOR TRAVELERS WATCHES.

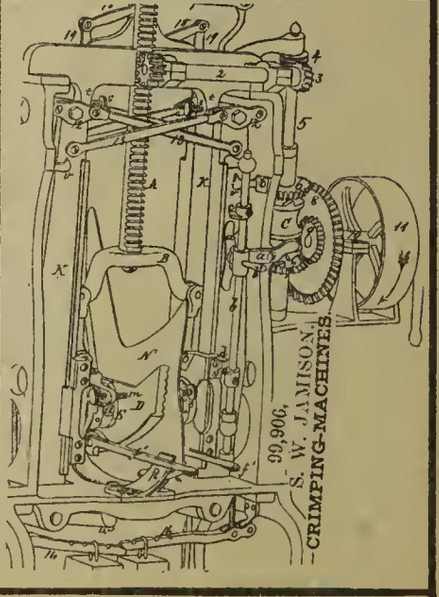
99,903, HERBERT A. HUMMER.
GRAIN-SEPARATORS.



99,904, JAMES HUNTER.
OBTAINING MADDER EXTRACT.

99,905, GEORGE H. JACKSON.
CLOD AND CORN-STALK FENDERS.

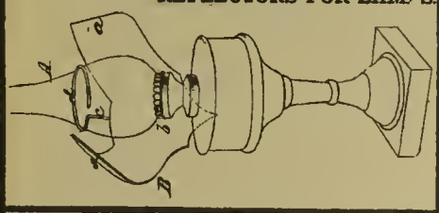




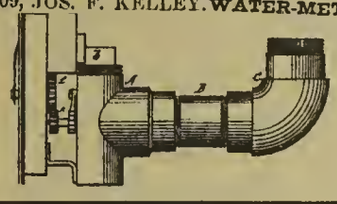
99,906, S. W. JAMISON.
CRIMPING-MACHINES.

99,907, HENRY M. JOHNSTON.
PIGMENTS FOR DISTEMPER PAINTING.

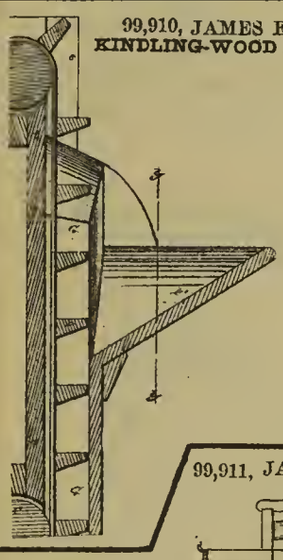
99,908, FREDERICK JUDSON.
REFLECTORS FOR LAMPS.



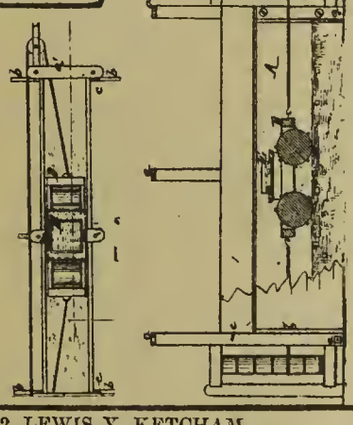
99,909, JOS. F. KELLEY. WATER-METERS.



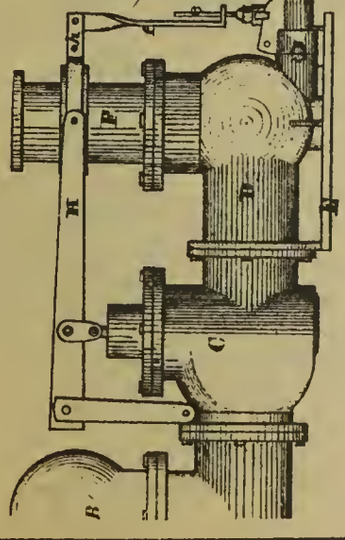
99,910, JAMES E. KELSEY.
KINDLING-WOOD ELEVATORS.



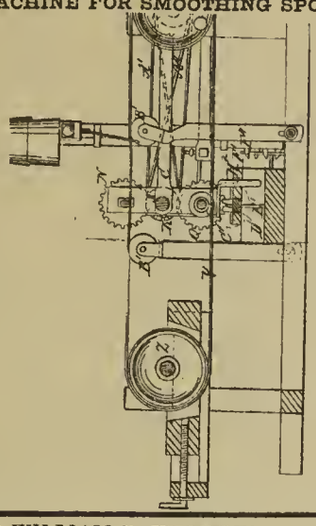
99,911, JAMES KERR.
FENCE.



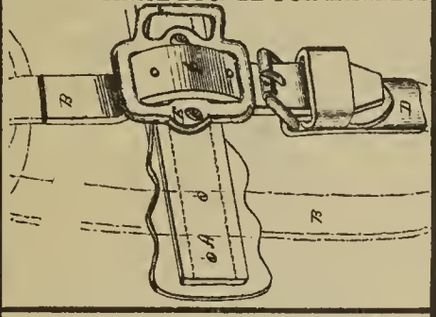
99,912, LEWIS Y. KETCHAM.
JAMES TAYNTON.
YARD AND TANK-CRANES.



99,913, HORATIO KEYES.
MACHINE FOR SMOOTHING SPOKES.

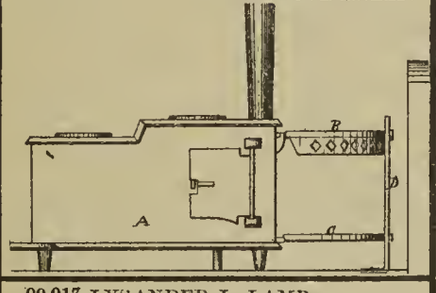


99,914, WILLIAM R. KNOWLES.
TRACE-BUCKLE FOR HARNESS.

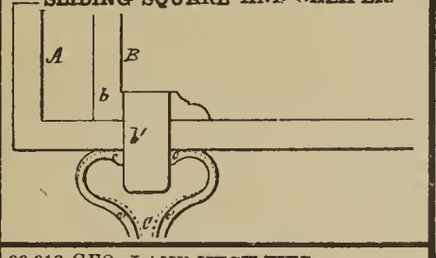


99,915, G. A. KNOWLTON. BLACKBALLS
FOR BOOT AND SHOE-MAKERS.

99,916, JOHN G. KRICHBAUM.
STOVE-SHELF.

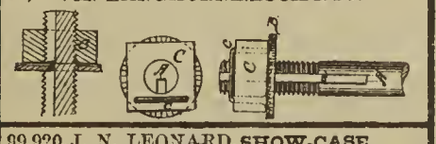


99,917, LYSANDER L. LAMB.
SLIDING SQUARE AND CALIPER.

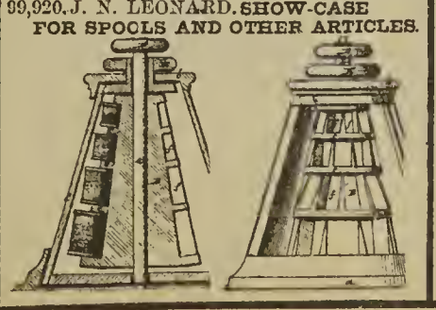


99,918, GEO. LANE. NECK-TIES.

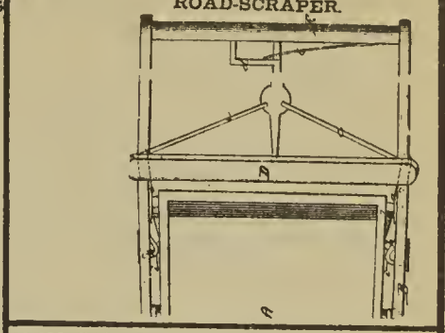
99,919, M. LANGHORNE. LOCK-NUT.



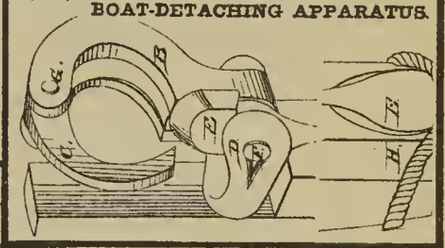
99,920, J. N. LEONARD. SHOW-CASE
FOR SPOOLS AND OTHER ARTICLES.



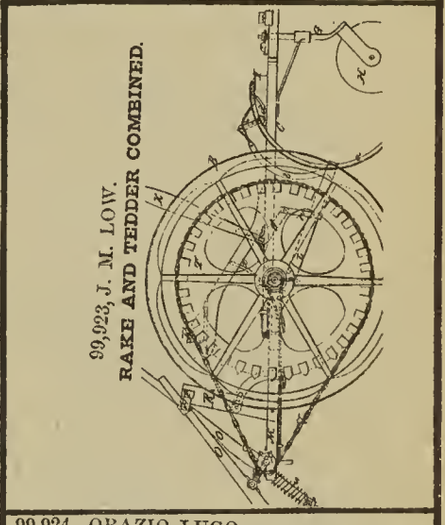
99,921, CYRUS LITTLE.
ROAD-SCRAPER.



99,922, SAM. L. LORD.
BOAT-DETACHING APPARATUS.

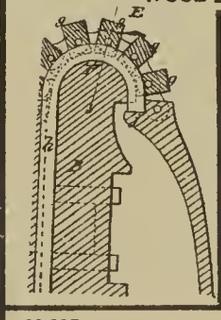


99,923, J. M. LOW.
RAKE AND TEDDER COMBINED.

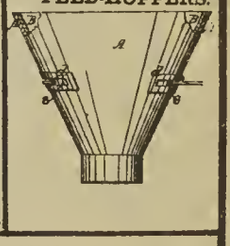


99,924, ORAZIO LUGO.
MANUFACTURE OF FERTILIZERS AND
IN EXTRACTING OILS AND FATS.

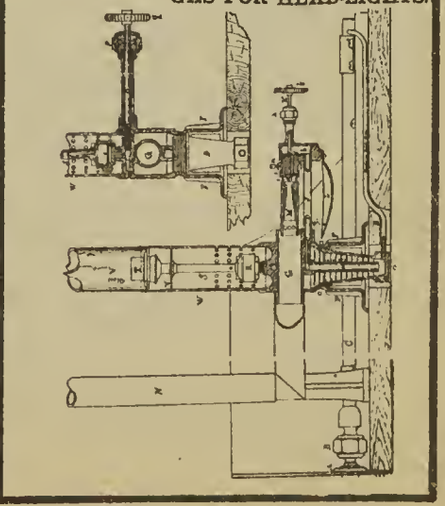
99,925, JAS. W. MARTIN.
WOOD-BENDING MACHINE.



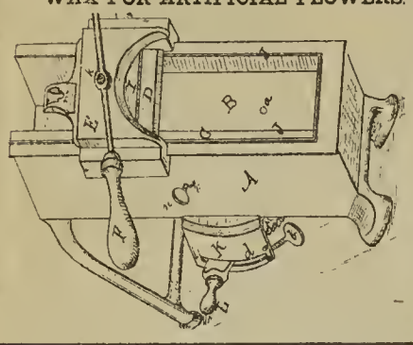
99,926,
J. MATTISON.
FEED-HOPPERS.



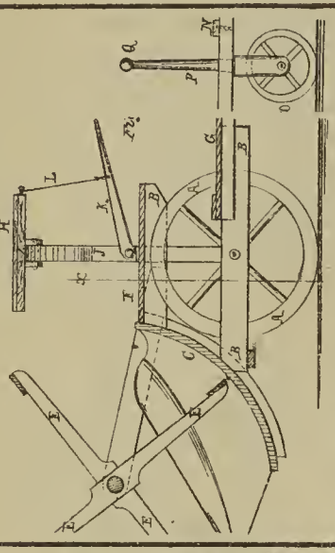
99,927, HIRAM S. MAXIM.
APPARATUS FOR GENERATING
GAS FOR HEAD-LIGHTS.



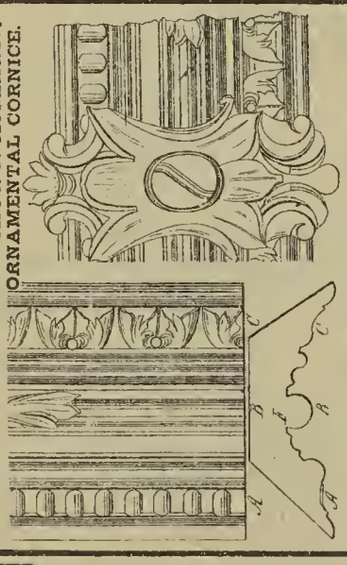
99,928, MARY JANE McCOLL. CUTTING WAX FOR ARTIFICIAL FLOWERS.



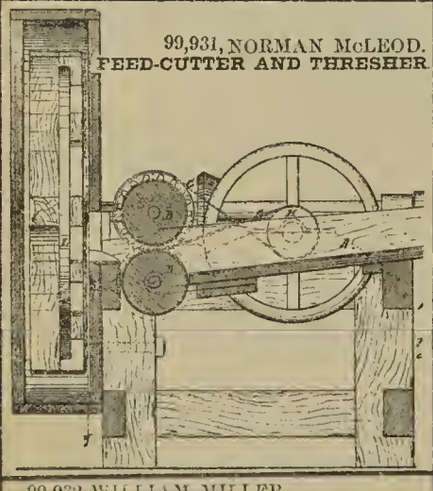
99,929, J. B. McCORMIK. HARVESTERS.



99,930, THOS. J. McGEARY. ORNAMENTAL CORNICE.

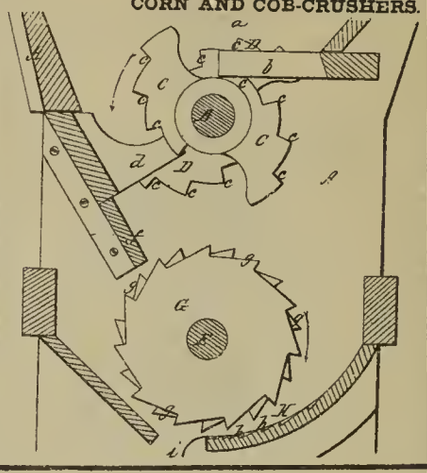


99,931, NORMAN McLEOD. FEED-CUTTER AND THRESHER.



99,932, WILLIAM MILLER. WEATHER-STRIP.

99,933, J. M. MOWRER. CORN AND COB-CRUSHERS.



99,934. C. MUIR.

STOVE LINING AND FIRE BRICK.

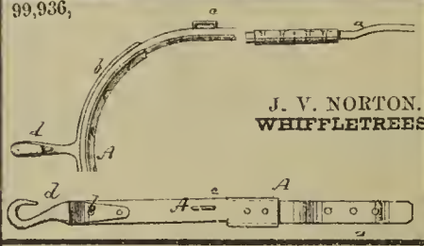
99,935. J. MURPHY.

MANUFACTURE OF

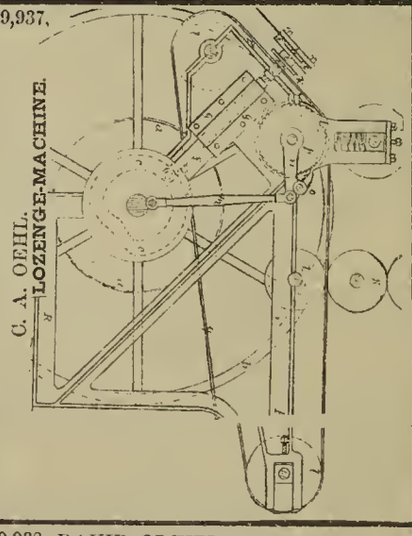
INDIA RUBBER AND

GUTTA PERCHA GOODS.

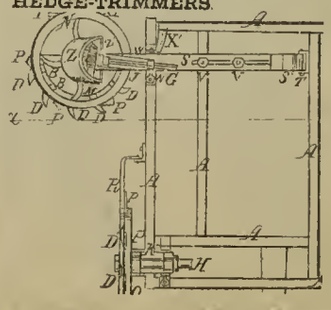
99,936, J. V. NORTON. WHIFFLETREES.



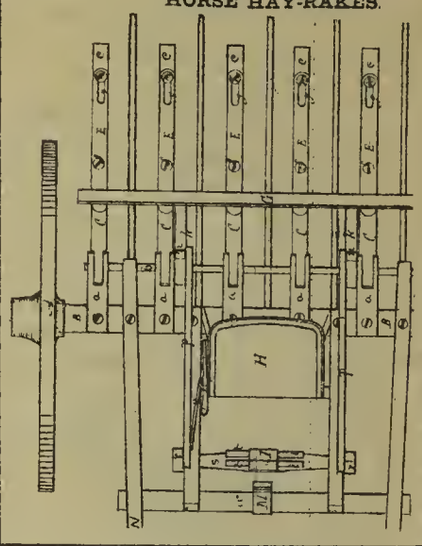
99,937, C. A. OEHL. LOZENGE-MACHINE.



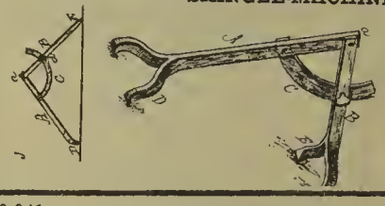
99,938, DAVID OLIVER. HEDGE-TRIMMERS.



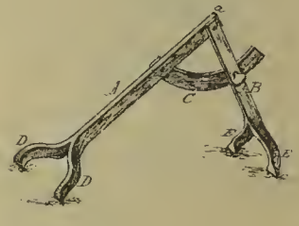
99,939, JOHN K. O'NEIL. HORSE HAY-RAKES.



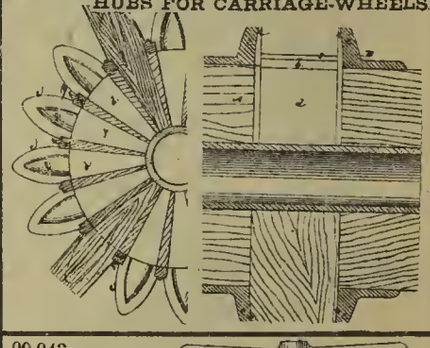
99,940, WM. H. H. PALMER. SHINGLE-MACHINE.



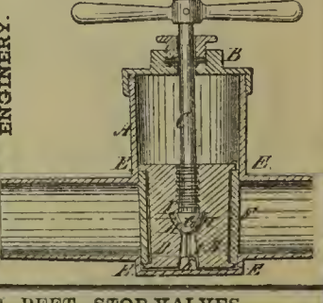
99,941, EDWARD PARKER. SCAFFOLD BRACKETS.



99,942, WILLIAM C. PEARSALL. HUBS FOR CARRIAGE-WHEELS.

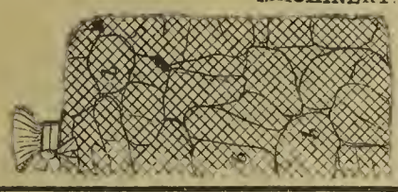


99,943, S. J. PEET. STOP-VALVES FOR STEAM AND OTHER ENGINERY.

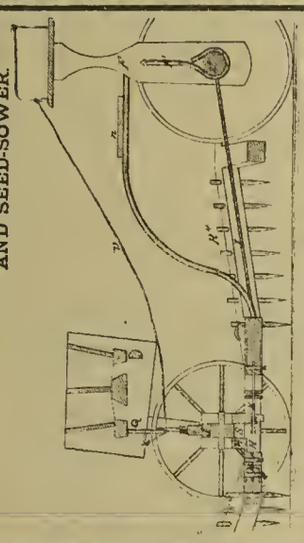


99,944, S. J. PEET. STOP-VALVES FOR STEAM AND OTHER ENGINERY.

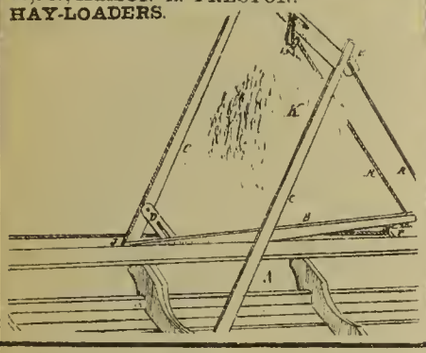
99,945, ANTHONY PEPLE.
PREPARING CERTAIN KINDS OF COTTON-WASTE FOR CLEANING MACHINERY.



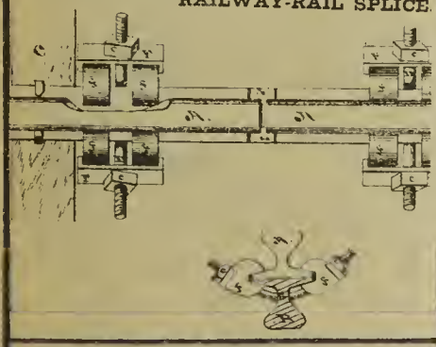
99,946, CHARLES E. PIERCE.
COMBINED HARROW, ROLLER, AND SEED-SOWER.



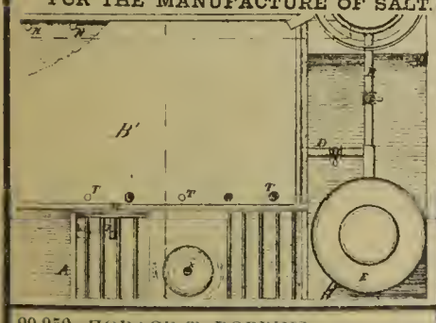
99,947, ALMON E. PRESTON.
HAY-LOADERS.



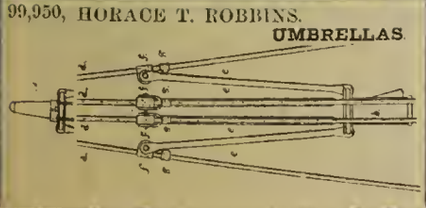
99,948, RD. RANDOLPH.
RAILWAY-RAIL SPLICE.



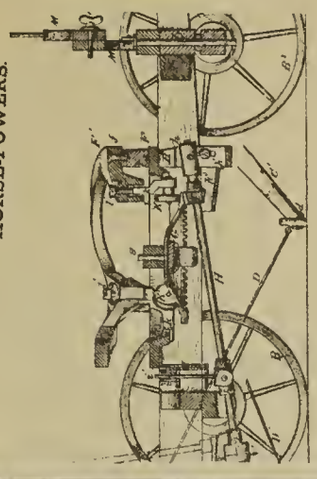
99,949, DEXTER REYNOLDS.
PROCESS AND APPARATUS FOR THE MANUFACTURE OF SALT.



99,950, HORACE T. ROBBINS.
UMBRELLAS.

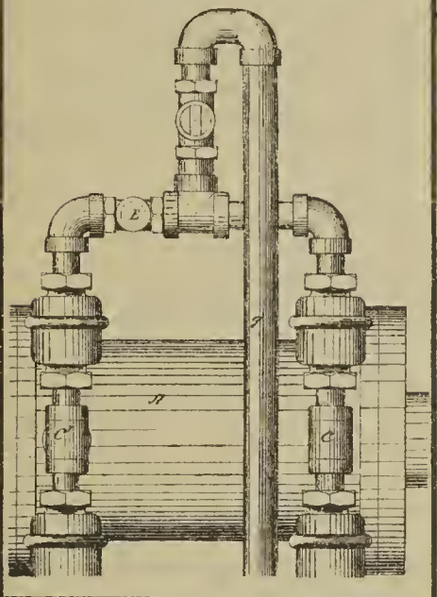


99,951, CYRUS ROBERTS.
JOHN A. THROP.
HORSE-POWERS.

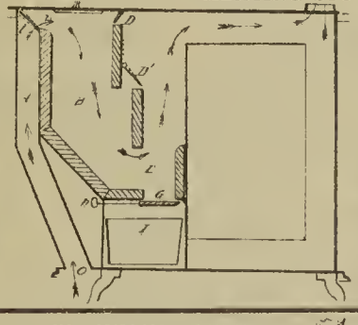


99,952. R. J. ROBERTS
PLATED NEEDLE

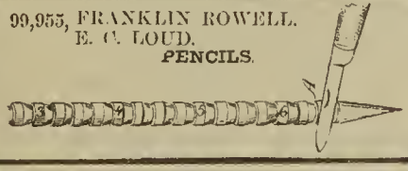
99,953. W. H. ROBERTS.
STEAM PUMPING-ENGINES.



99,954, WM. FRAZIER ROSS.
HEATING STOVE.

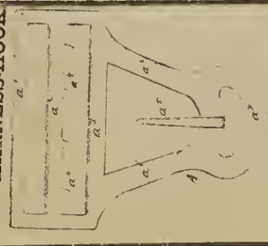


99,955, FRANKLIN ROWELL.
E. C. LOUD.
PENCILS.



99,956, A. D. SCHLESINGER. COLORING VULCANITE OR HARD RUBBER.

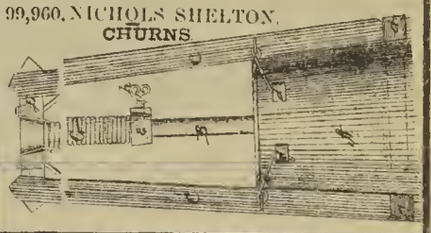
99,957, JOHN SEAMAN.
HARNESS-HOOK.



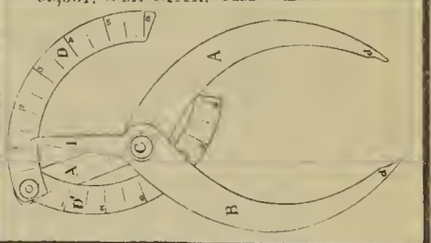
99,958, THOMAS SHAW.
APPARATUS FOR FORGING METALS.

99,959, GEORGE V. SHEFFIELD.
JOHN A. SHEFFIELD.
MEDICAL COMPOUND.

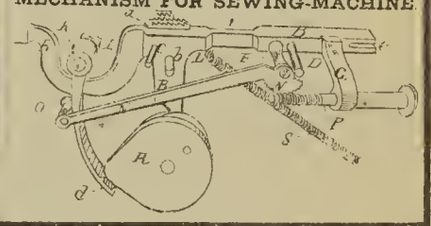
99,960, NICHOLS SHELTON.
CHURNS.



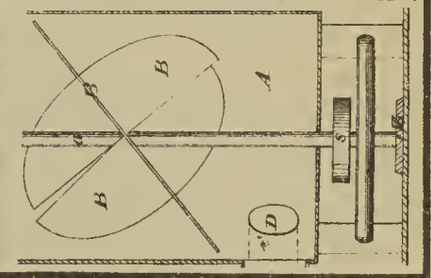
99,961, WM. SIAR. CALIPERS.



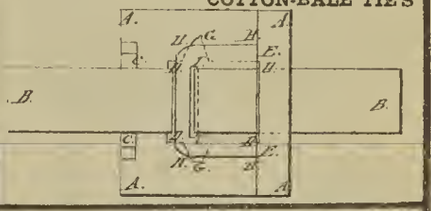
99,962, G. A. SMITH. FEEDING MECHANISM FOR SEWING-MACHINE.



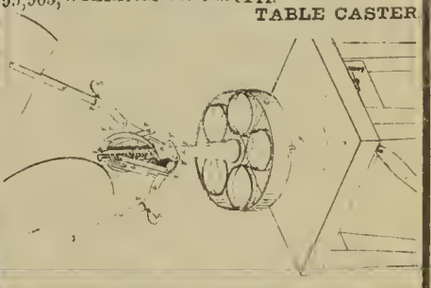
99,963, WILLIAM SMITH.
HOT-AIR FURNACES.



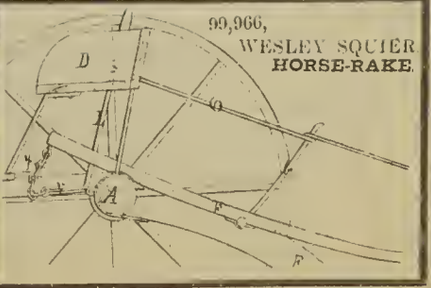
99,964, WILLIAM M. SMITH.
COTTON-BALE TIES.



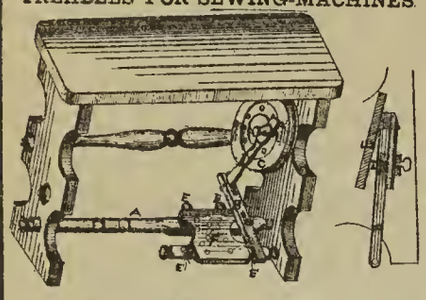
99,965, WILLIAM M. SMITH.
TABLE CASTER.



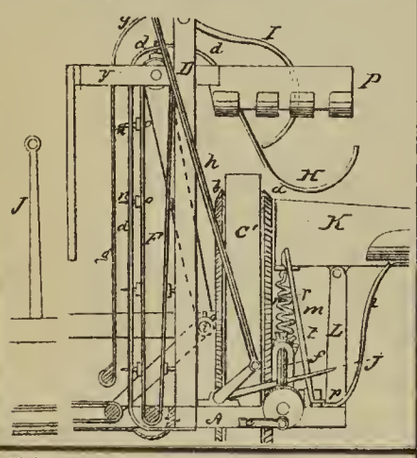
99,966, WESLEY SQUIER.
HORSE-RAKE.



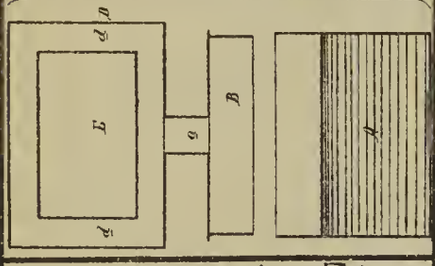
99,967, FREDERICK STAMLER.
TREADLES FOR SEWING-MACHINES.



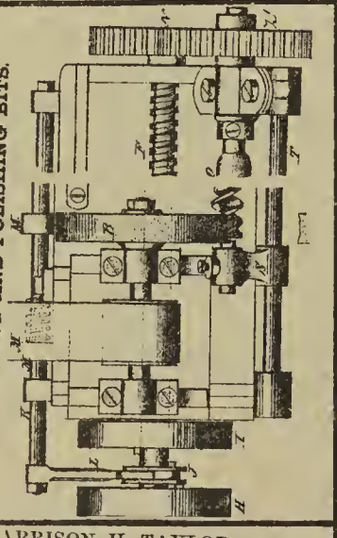
99,968. L. B. STILSON.
GRAIN HARVESTER AND BINDER.



99,969, DAVID STUART.
COOKING-STOVES.



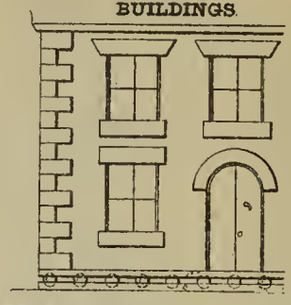
99,970, JAMES SWAN. **MACHINE FOR GRINDING AND POLISHING BITS.**



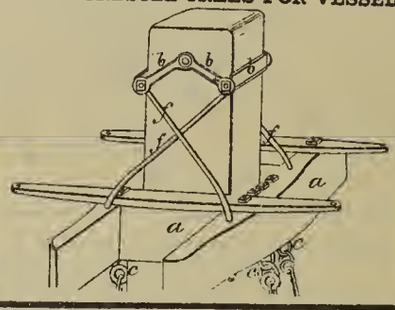
99,971, HARRISON H. TAYLOR.
GEO. H. GRAHAM.
TOASTING-FORK.

99,972,
ALBERT H. TINGLEY.
AUTOMATIC HEAT-REGULATOR FOR HOT-AIR FURNACES.

99,973, JULES TOUAILLON.
BUILDINGS.

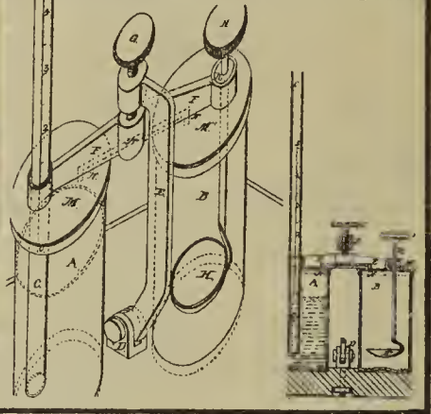


99,974, HENRY TOWNSEND,
TRESTLE-TREES FOR VESSELS.

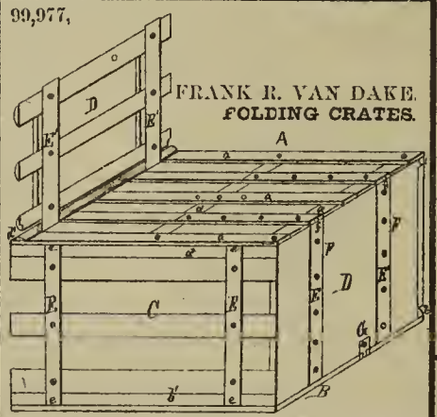


99,975. H. W. C. TWEDDLE.
MANUFACTURE OF PARAFINE AND

99,976, HENRY TWITCHELL.
APPARATUS FOR ASCERTAINING THE AMOUNT OF ACID IN LIQUIDS.



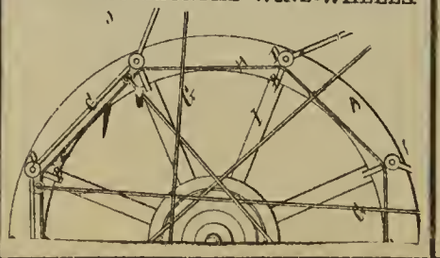
99,977,
FRANK R. VAN DAKE.
FOLDING CRATES.



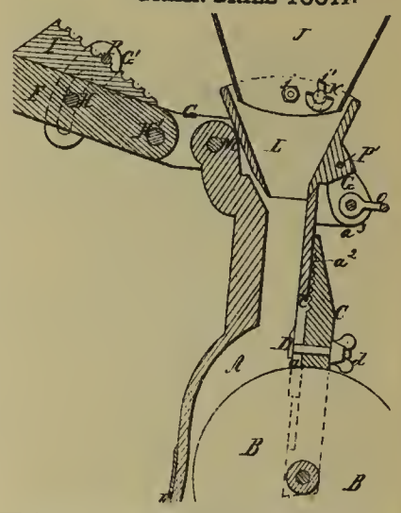
99,978, ANTHONY VAN HAAGEN.
WM. ADAMSON.
FERTILIZER FROM GLUE RESIDUUM.

99,979, ANTHONY VAN HAAGEN.
WM. ADAMSON.
SOAP PRODUCT FROM GLUE RESIDUUM.

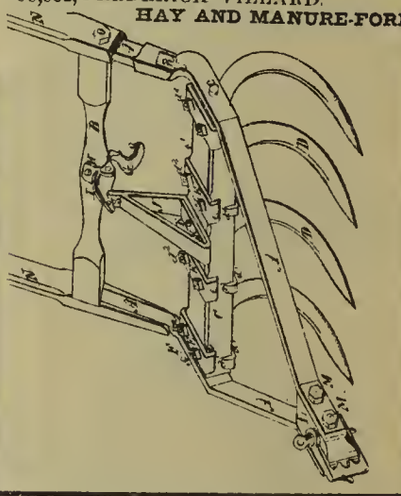
99,980, JEROME A. VAUGHN.
HORIZONTAL WIND-WHEELS.



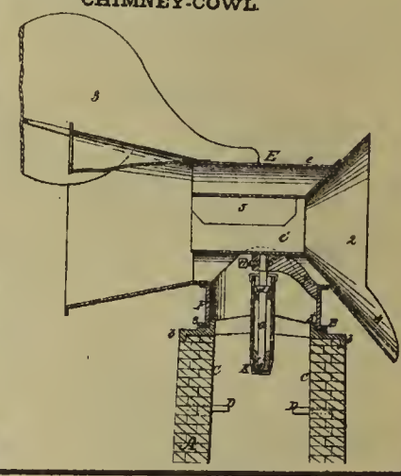
99,981, FREDERICK VILLARD.
GRAIN-DRILL TOOTH.



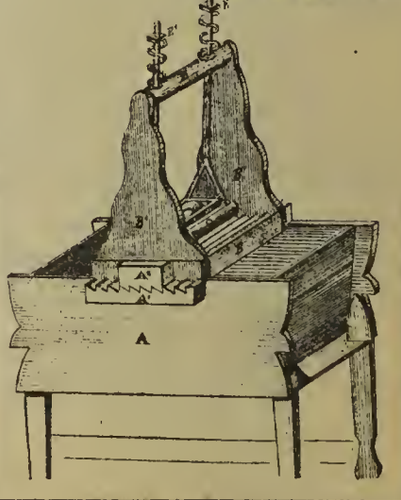
99,982, FREDERICK VILLARD.
HAY AND MANURE-FORK.



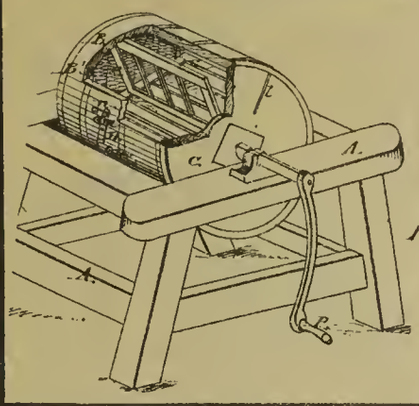
99,983, FRIEDRICH VILLARD.
CHIMNEY-COWL.



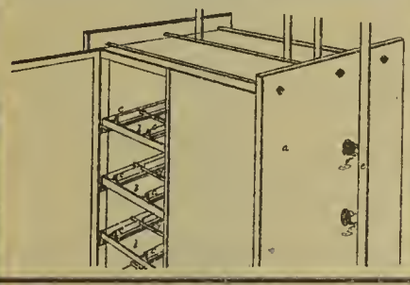
99,984, JOHN V. WACKERMAN.
WASHING-MACHINE.



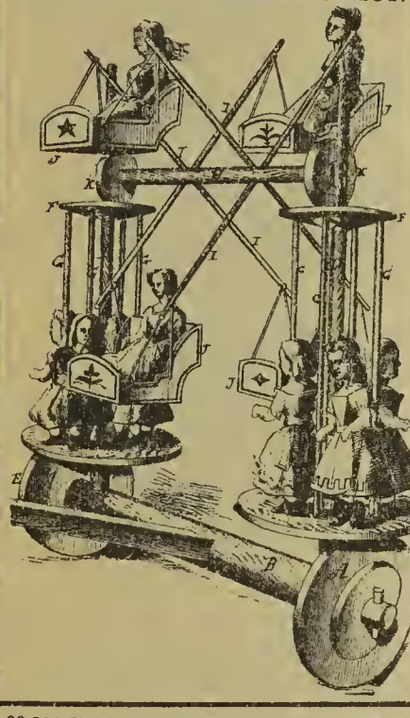
99,985, FRIEDRICH WEGNER. CHARLES SCHLEETER. CHURNS.



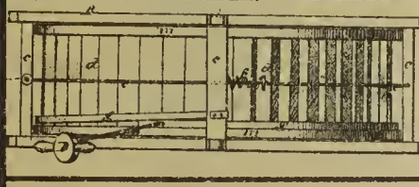
99,986, WILLIAM WELCH. APPARATUS FOR DIFFUSING VAPORS THROUGH CUSHIONS, MATTRESSES.



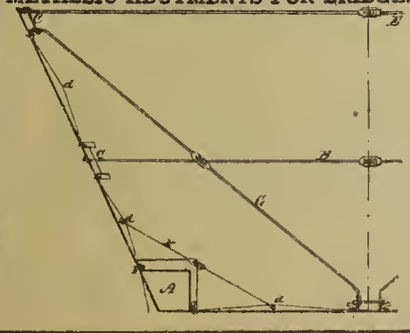
99,987, ROBERT WENT. COMBINATION TOY.



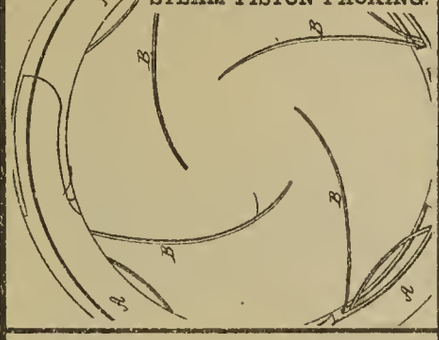
99,988, H. M. WHEELER. WINDMILLS.



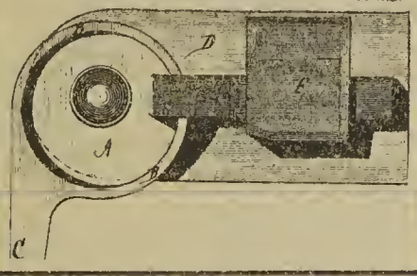
99,989, ALPHEUS WHEELOCK. METALLIC ABUTMENTS FOR BRIDGES.



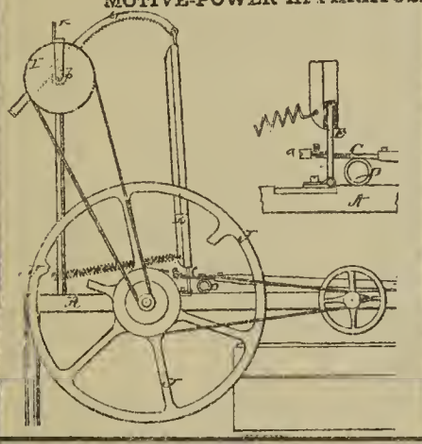
99,990, JEROME WHEELOCK. STEAM PISTON PACKING.



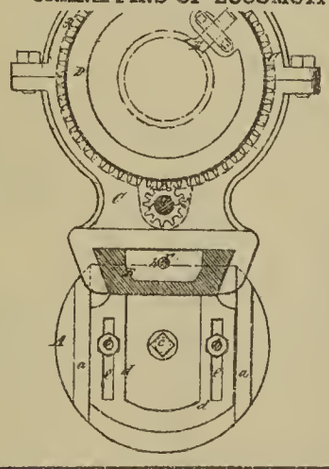
99,991, SILAS WHITMAN. CAM-LEVERS.



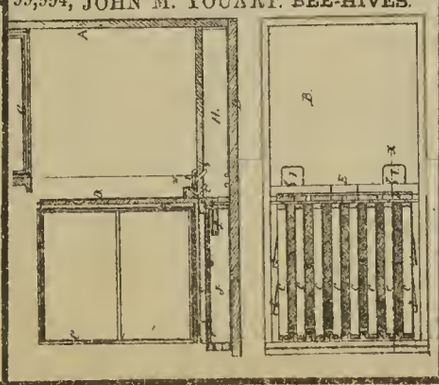
99,992, H. WILKINS. WILLIAM H. SANGSTER. MOTIVE-POWER APPARATUS.



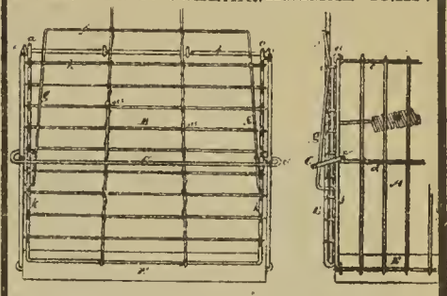
99,993, NATHAN WRIGHT. MACHINE FOR RE-TURNING CRANK-PINS OF LOCOMOTIVES.



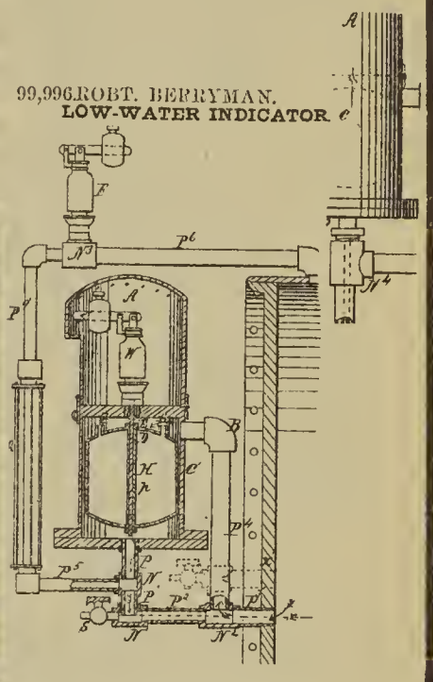
99,994, JOHN M. YOUART. BEE-HIVES.



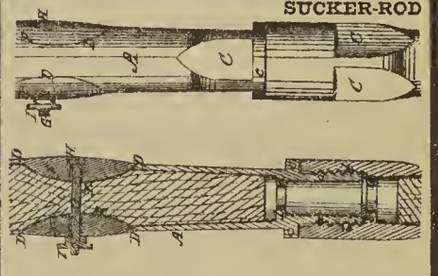
99,995, WM. F. COLLIER. ANIMAL TRAP.



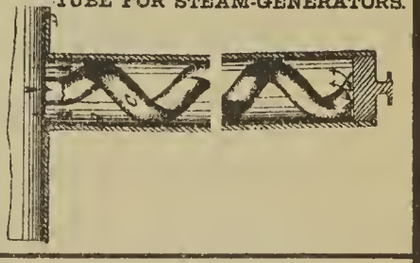
99,996, ROBT. BERRYMAN. LOW-WATER INDICATOR.



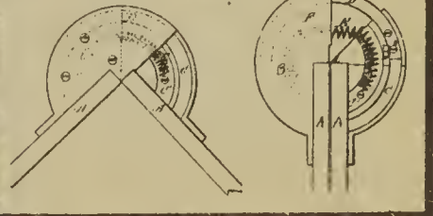
99,997, ADAM GOOD, JR. COUPLINGS FOR OIL WELLS SUCKER-ROD



99,998, JOHN C. STEVENS. CIRCULATING-TUBE FOR STEAM-GENERATORS.

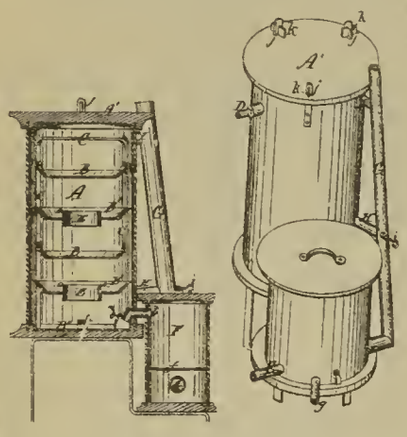


99,999, TIMOTHY SMITH. HINGES.

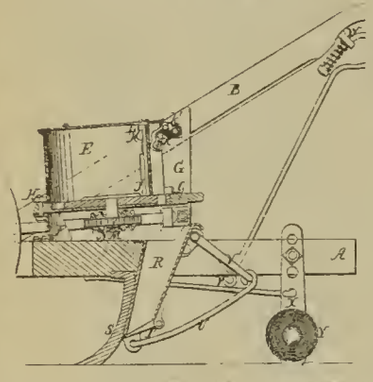


3,834, JAMES ARMSTRONG. FEED WATER HEATERS AND FILTERS.

3,835, WM. W. AVERELL.
MANUFACTURE OF CAST-STEEL

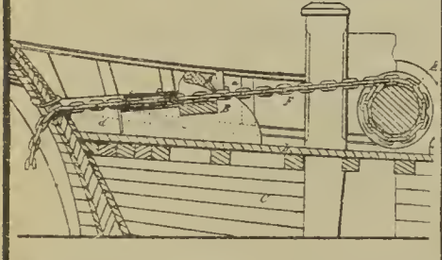


3,836, JAMES CAMPBELL.
WILLIAM CAMPBELL.
CORN-PLANTERS.

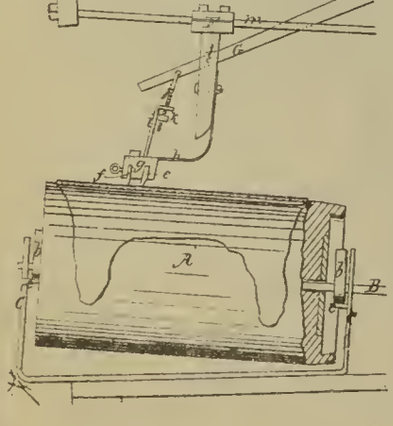


3,837, JOSEPH H. DEACON. ALCOHOLIC LIQUOR FROM THE RHUBARB PLANT.

3,838, J. J. EMERY.
E. R. CHENEY.
SURGE-RELIEVERS.

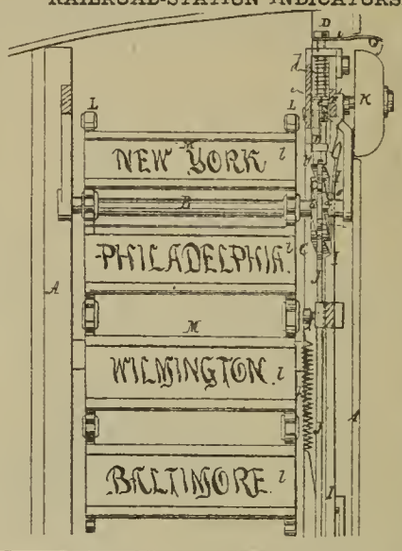


3,839, HENRY LAMPERT. APPARATUS FOR SCRAPING AND WORKING HIDES.



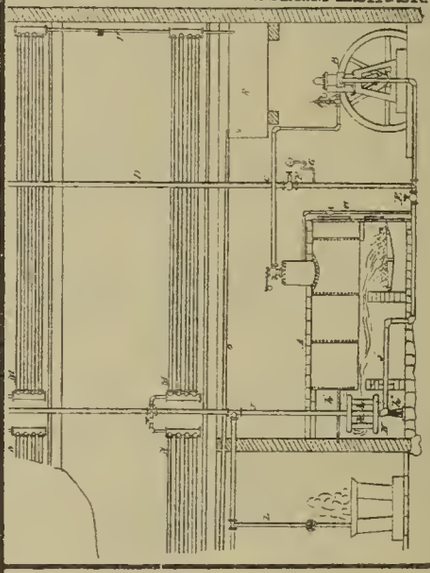
3,840, ORAZIO LUGO
GUANO FROM FISH
MANUFACTURE OF FERTILIZERS OR

3,841, AMOS C. RODGERS.
LEWIS SHAFFER.
RAILROAD-STATION INDICATORS.



3,842, JUNIUS SCHENCK.
MANUFACTURE OF HOSE, TUBING, AND OTHER RUBBERFABRICS.

3,843, JOSEPH SHACKLETON.
STEAM-HEATER.



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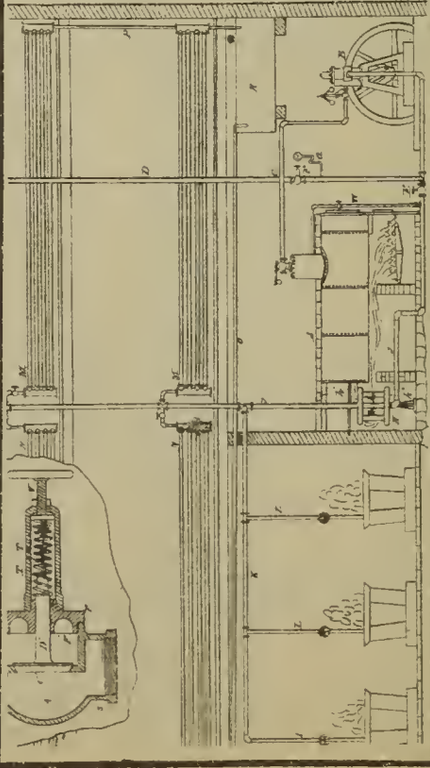
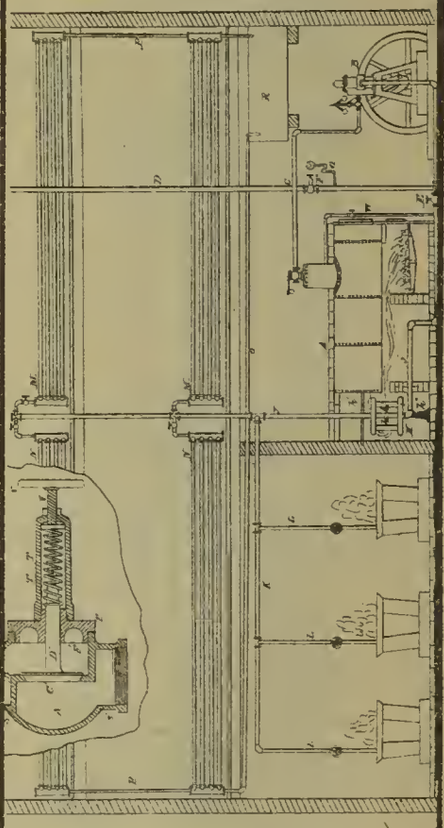
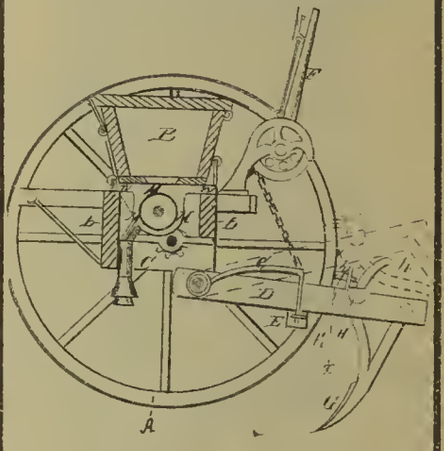
STEAM-HEATER.

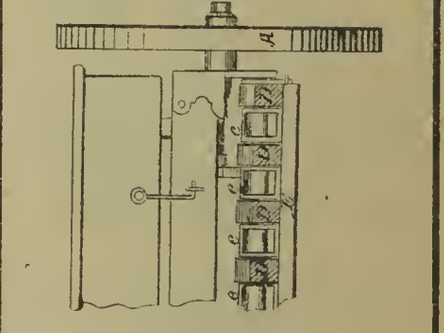


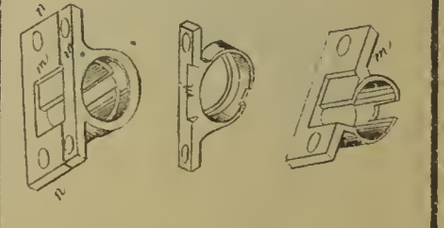
3,845, JOSEPH SHACKLETON.
STEAM-HEATER



3,846, W. A. VAN BRUNT.
SEEDING-MACHINES.







ILLUSTRATIONS OF PATENTS

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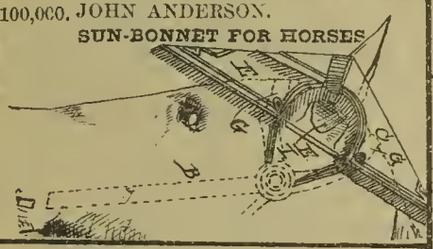
FEBRUARY 22, 1870.

100,000. JOHN ANDERSON.
SUN-BONNET FOR HORSES.



100,001, JOSEPH ARRINGTON.
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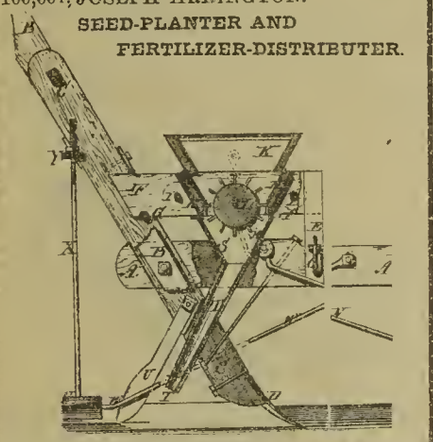
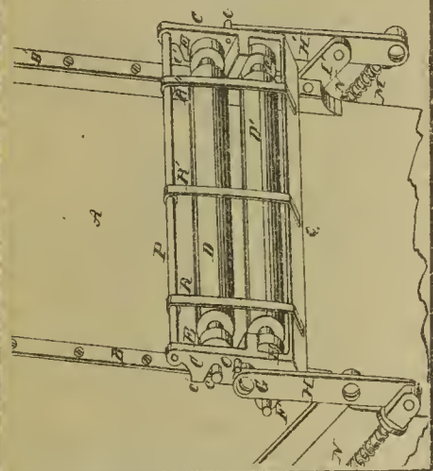
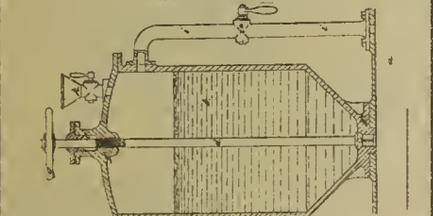


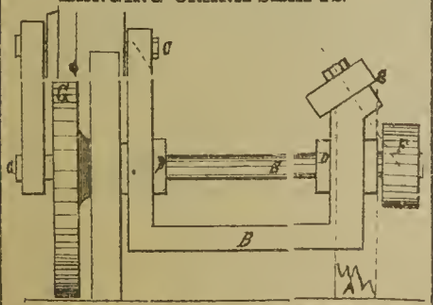
100,002, HENRY BARTH.
PRINTING-PRESSES.



100,003, HENRY BESSEMER. PROCESSES AND APPARATUS FOR THE MANUFACTURE OF IRON.

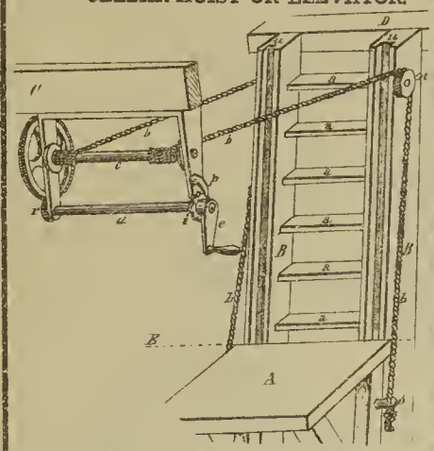


100,004, JAMES M. BEUGLER.
HANGING CRANK-SHAFTS.



100,005, MARCAR WAHRAM BEYLIKGY.
MANUFACTURE OF WATER-PROOF FABRICS FROM WASTE RUBBER.

100,006, HENRY L. BOWERS.
CELLAR-HOIST OR ELEVATOR.



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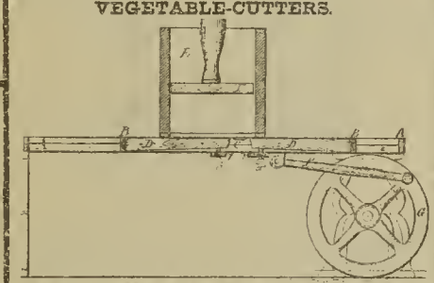
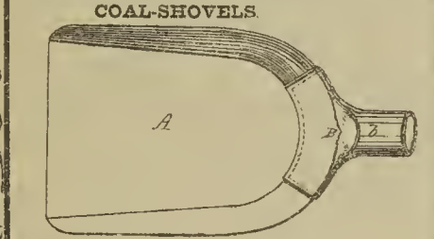
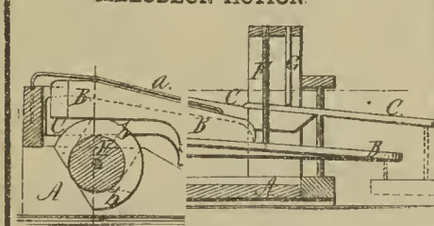
WM. A. BOYDEN.
VEGETABLE-CUTTERS.



100,008, JAMES F. BREWER.
COAL-SHOVELS.

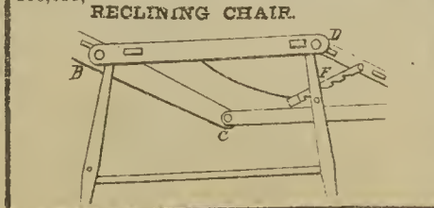


100,009, JOHN C. BRIGGS.
MELODEON ACTION.



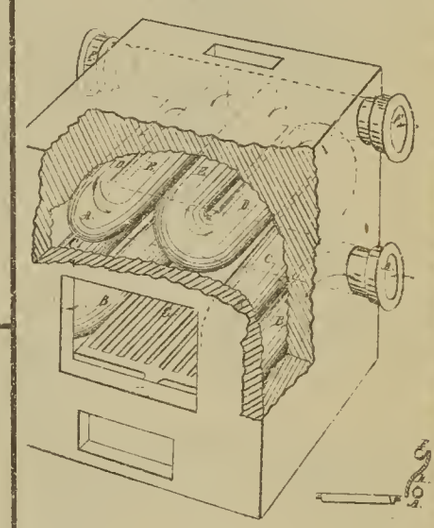
100,010, LORENZO BROWN.
SEAT-FASTENERS.

100,011, WILLIAM A. BURY.
RECLINING CHAIR.



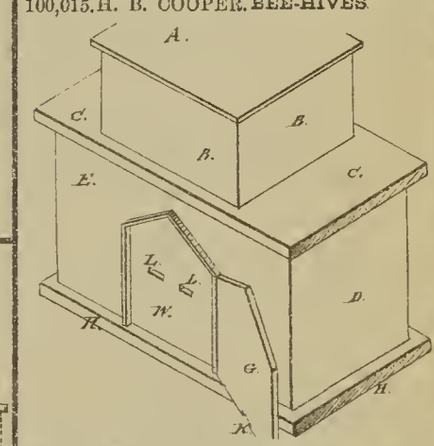
100,012. A. B. CALDWELL. UMBRELLAS.

100,013, S. E. CHUBBUCK.
WATER-HEATER FOR GREEN-HOUSES.

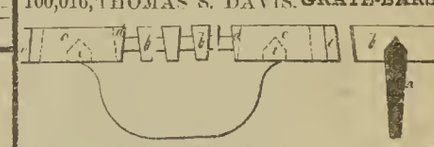


100,014, ELBERT P. COOK.
IMPROVED HEAD-REST.

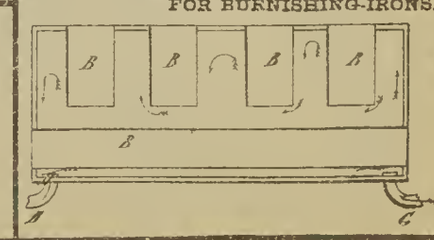
100,015. H. B. COOPER. BEE-HIVES.



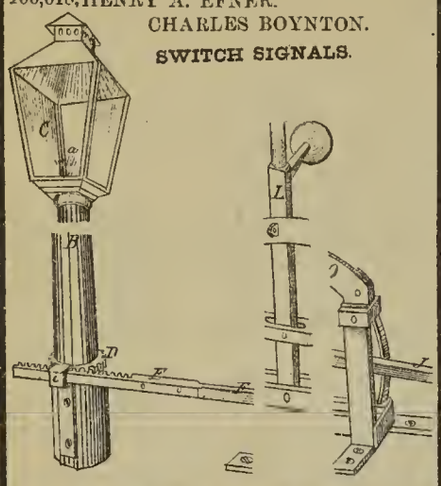
100,016, THOMAS S. DAVIS. GRATE-BARS.



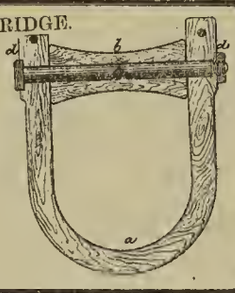
100,017, JOS. M. DE LACY.
STEAM-HEATER FOR BURNISHING-IRONS.



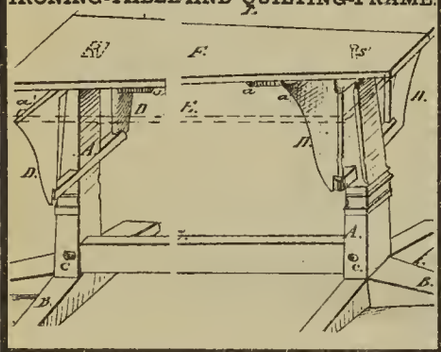
100,018, HENRY A. EFNER.
CHARLES BOYNTON.
SWITCH SIGNALS.



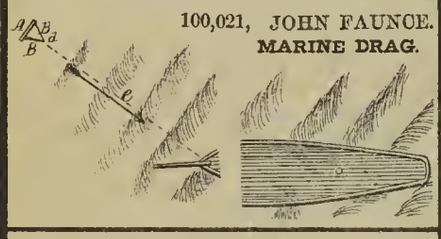
100,019, H. K. ELDRIDGE.
JIB-HANKS FOR VESSELS.



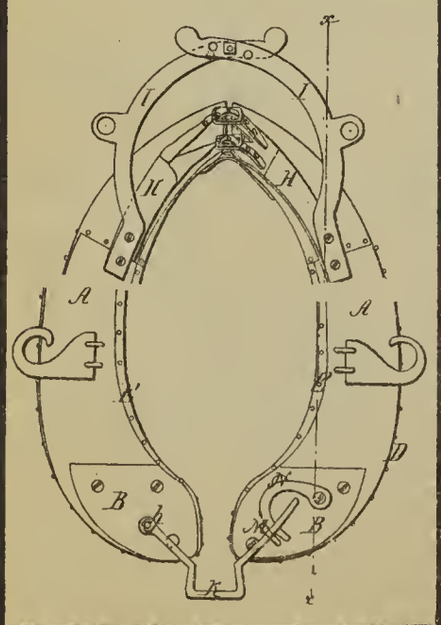
100,020, THOS. ELKINS. DINING AND IRONING-TABLE AND QUILTING-FRAME.



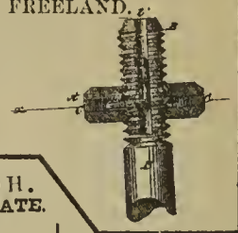
100,021, JOHN FAUNCE.
MARINE DRAG.



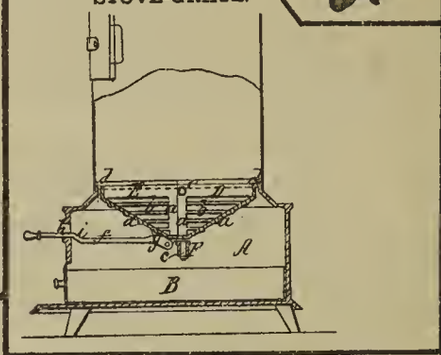
JAS. H. FERGUSON, COLLAR
100,022 AND HAME FOR HARNESS.



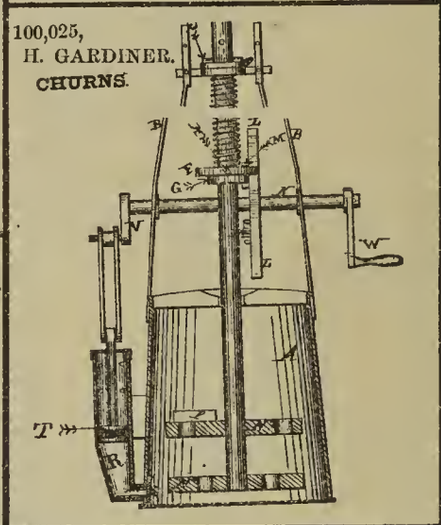
100,023, OSWALD S. FREELAND.
NUT-LOCK.



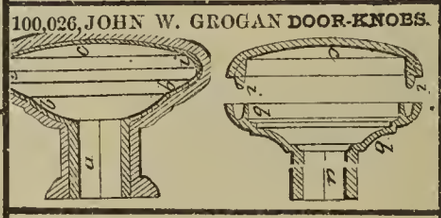
100,024, GEO. FROH.
STOVE-GRATE.



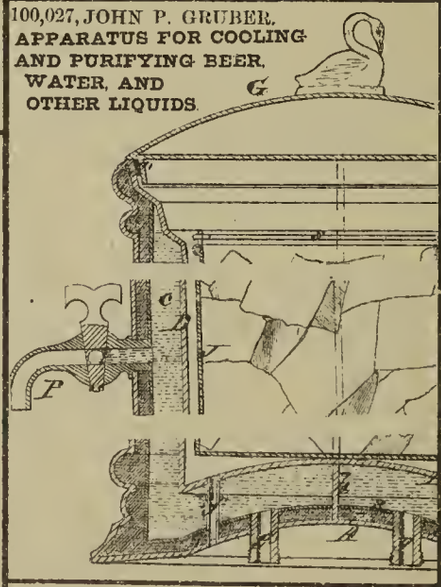
100,025,
H. GARDINER.
CHURNS.



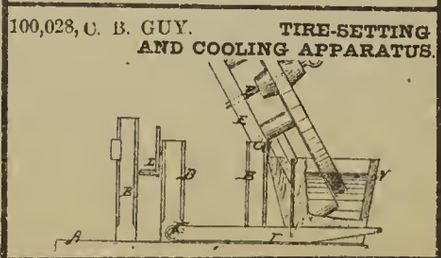
100,026, JOHN W. GROGAN DOOR-KNOBS.



100,027, JOHN P. GRUBER.
APPARATUS FOR COOLING AND PURIFYING BEER, WATER, AND OTHER LIQUIDS.

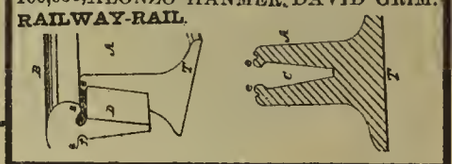


100,028, C. B. GUY.
TIRE-SETTING AND COOLING APPARATUS.

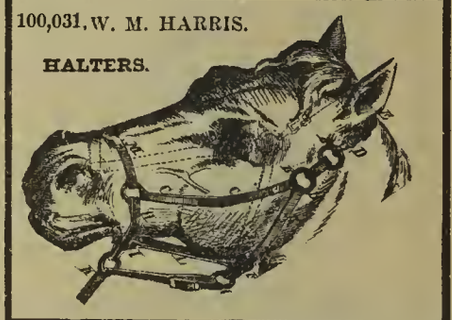


100,029,
JOHN HAMILTON. R PATERSON.
CASKS FOR CONTAINING FERMENTABLE BEVERAGES.

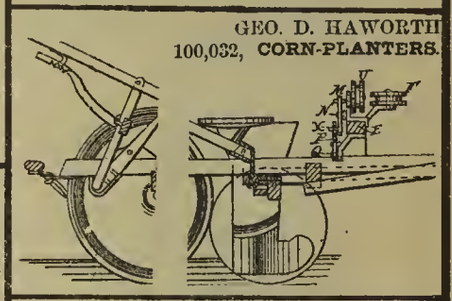
100,030, ALONZO HANMER. DAVID GRIM.
RAILWAY-RAIL.



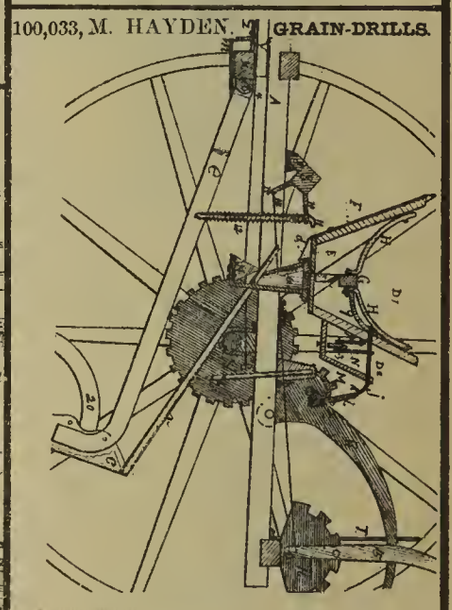
100,031, W. M. HARRIS.
HALTERS.



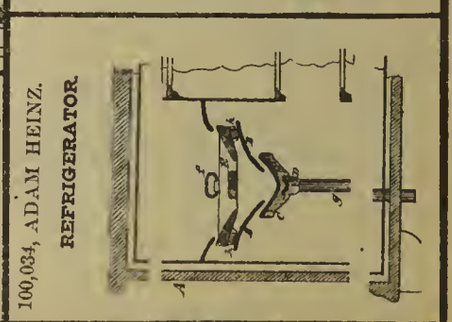
GEO. D. HAWORTH
100,032, CORN-PLANTERS.



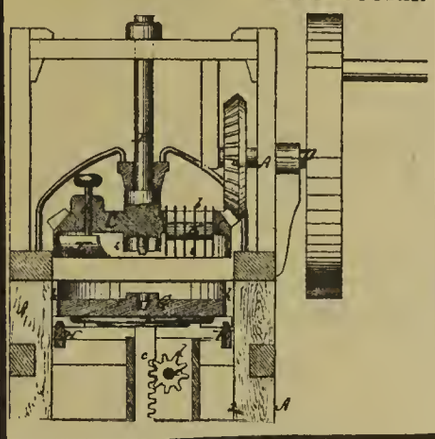
100,033, M. HAYDEN. GRAIN-DRILLS.



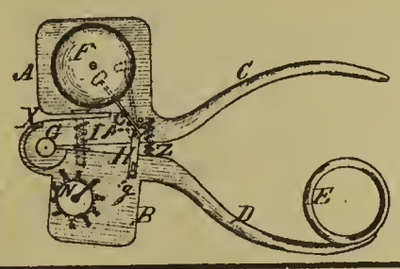
100,034, ADAM HEINZ.
REFRIGERATOR.



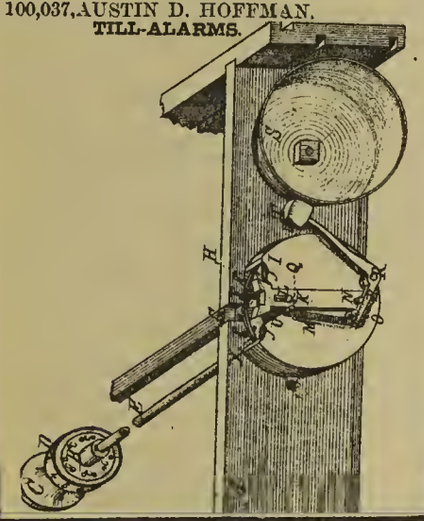
100,035, WILLIAM B. HEINTZE.
MEAT-CUTTER



100,036, AUSTIN D. HOFFMAN.
REGISTERING-PUNCH FOR RAILROAD CONDUCTORS.



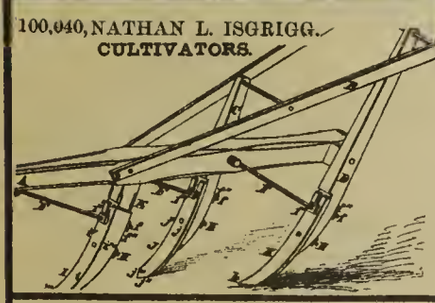
100,037, AUSTIN D. HOFFMAN.
TILL-ALARMS.



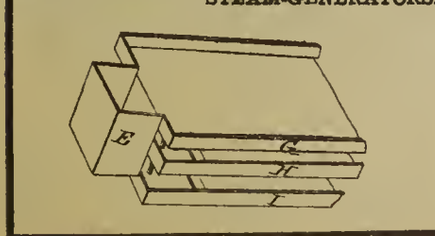
100,038, JAMES SPOONER HOWARD.
ELECTROPLATING WITH ANTIMONY.

100,039, WILLIAM H. H. IRWIN.
COMPOUND FOR CURE OF COUGHS, COLDS,

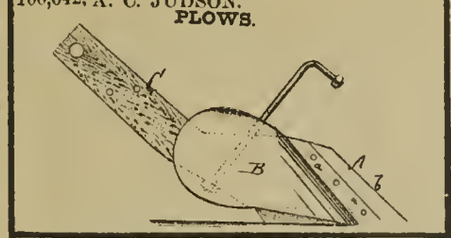
100,040, NATHAN L. ISGRIGG.
CULTIVATORS.



100,041 JAMES JACOBS.
STEAM-GENERATORS.

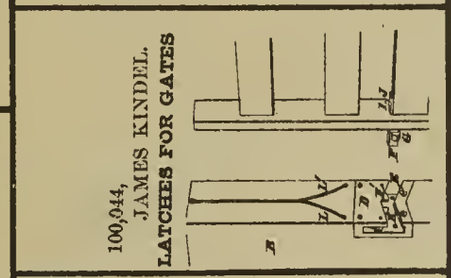


100,042, A. C. JUDSON.
PLOWS.

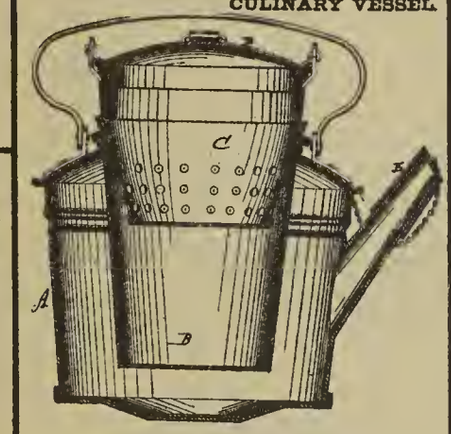


100,043, MARTINUS B. KIMM.
COMPOUND TO REMOVE GREASE FROM CLOTH, SILK, PAPER,

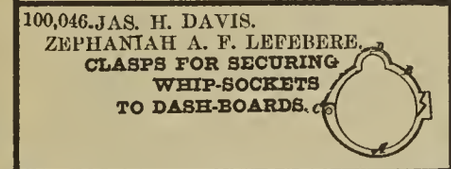
100,044, JAMES KINDEL.
LATCHES FOR GATES



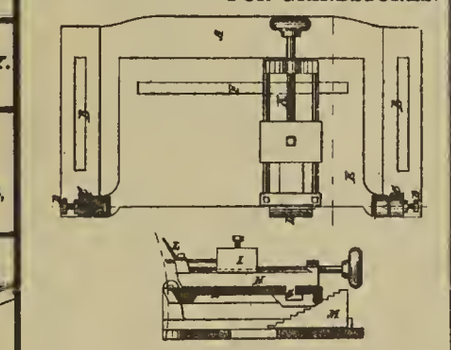
100,045, G. LANDRINE.
CULINARY VESSEL.



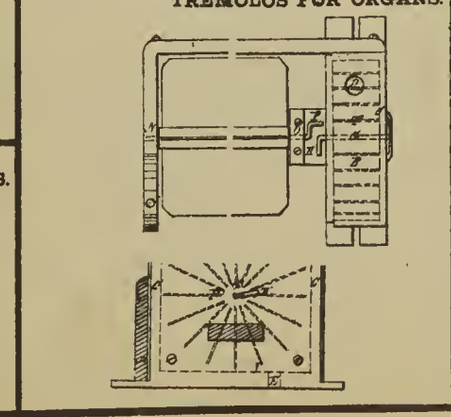
100,046, JAS. H. DAVIS.
ZEPHANIAH A. F. LEFEBERE.
CLASPS FOR SECURING WHIP-SOCKETS TO DASH-BOARDS.



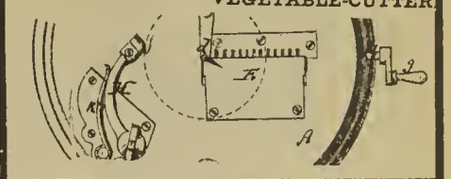
100,047, PHILIP LEONARD. TOOL-HOLDER FOR GRINDSTONES.



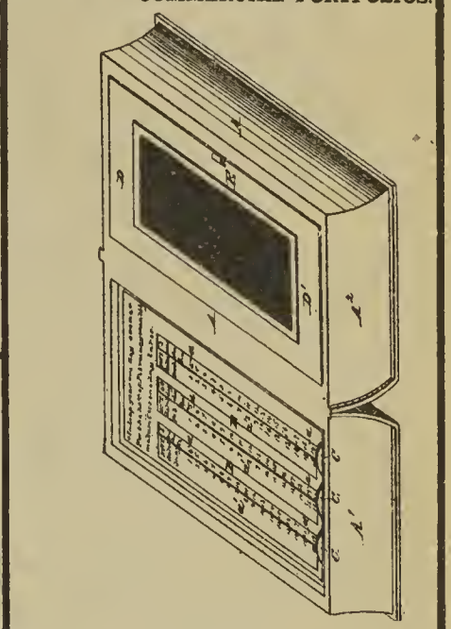
100,048, JOHN R. LOMAS.
TREMOLOS FOR ORGANS.



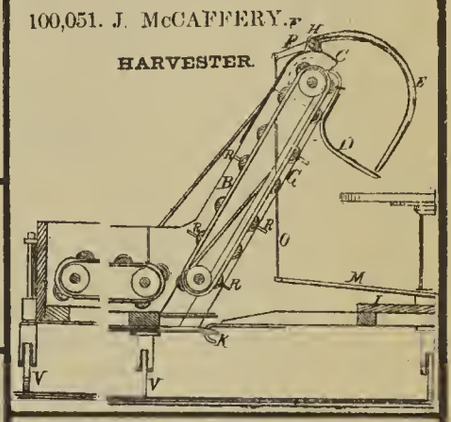
100,049, JOHN SCHULTHEIS, GEORG LUTZ, MICHEL FLORENTIN.
VEGETABLE-CUTTER.



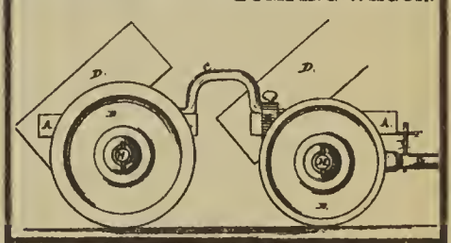
100,050, S. E. MANDLEBAUM.
COMMERCIAL PORTFOLIOS.



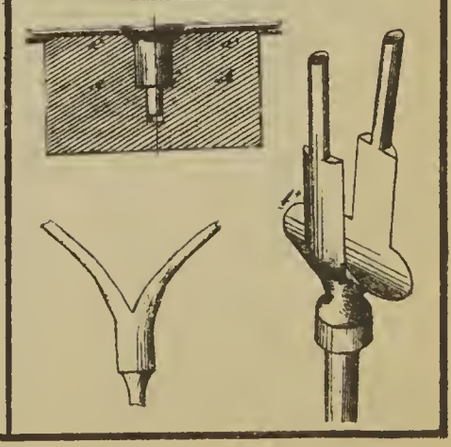
100,051. J. McCAFFERY.
HARVESTER.



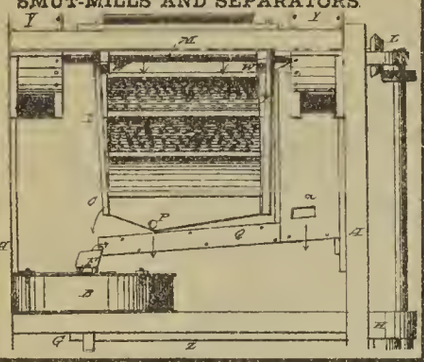
100,052, EDWARD MILLER.
DUMPING-WAGON.



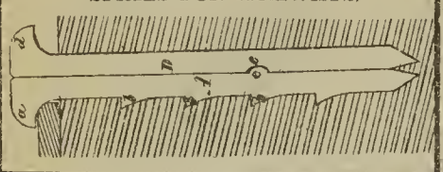
100,053, R. R. MILLER.
SERIES OF DIES FOR FORMING THE HEADS OF KING-BOLTS.



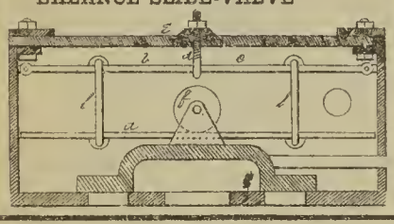
100,054, JNO. MILLS.
A. G. WALDO.
SMUT-MILLS AND SEPARATORS.



100,055, JAMES MONTGOMERY.
SPIKES FOR RAILWAYS.

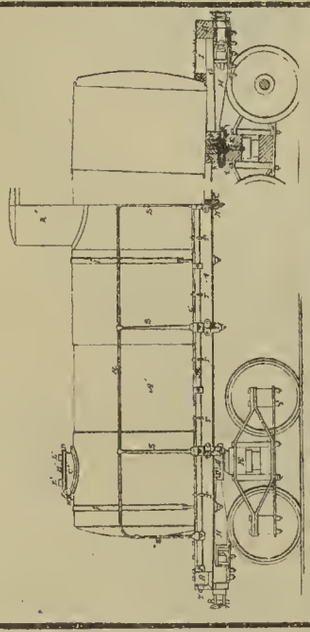


100,056, GEO. R. MOORE.
BALANCE SLIDE-VALVE

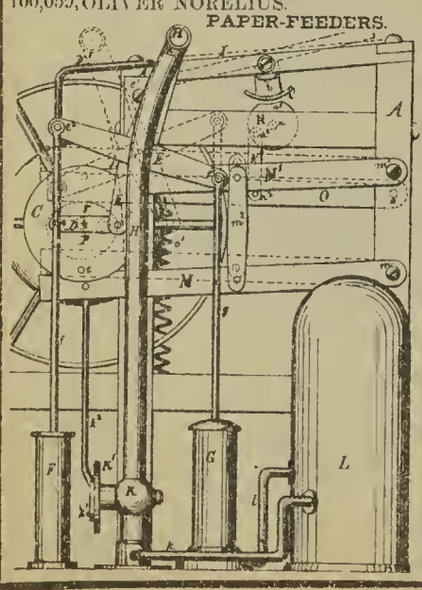


100,057, J. T. MULKEY.
OINTMENT FOR BRUISES, BURNS, &c.

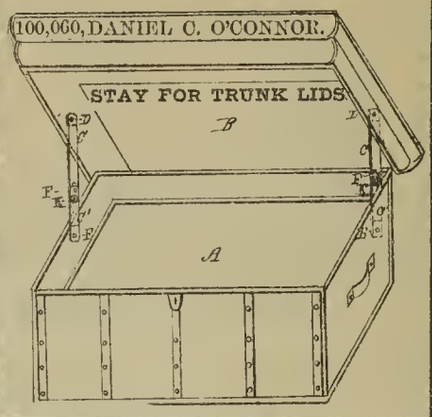
100,058, B. P. LAMASON.
S. W. MURRAY.
RAILWAY OIL-CAR



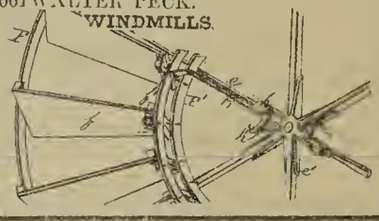
100,059, OLIVER NORELIUS.
PAPER-FEEDERS.



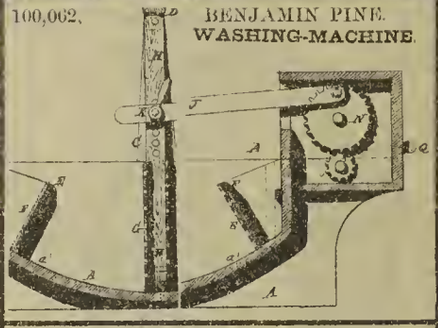
100,060, DANIEL C. O'CONNOR.
STAY FOR TRUNK LIDS.



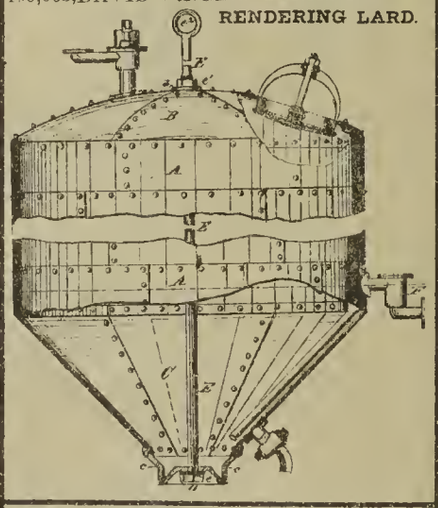
100,061 WALTER PECK.
WINDMILLS.



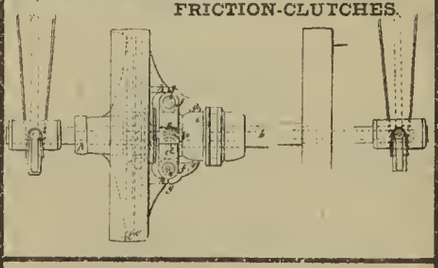
100,062, BENJAMIN PINE.
WASHING-MACHINE.



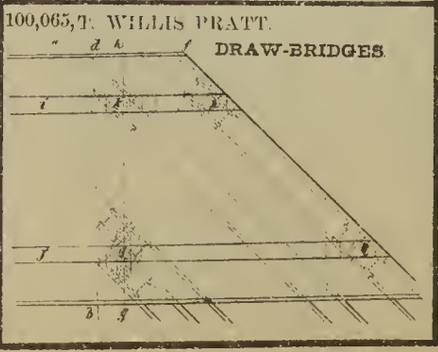
100,063, DAVID PINGER. TANKS FOR RENDERING LARD.



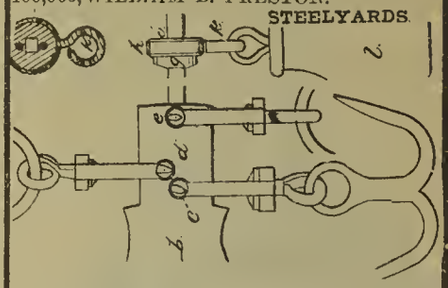
100,064, FRANCIS A. PRATT.
FRICTION-CLUTCHES.



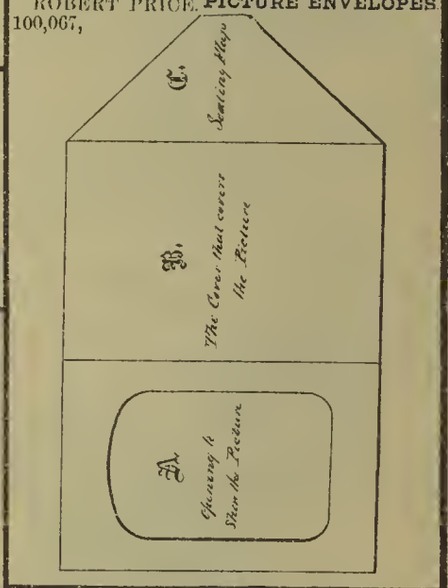
100,065, T. WILLIS PRATT.
DRAW-BRIDGES.



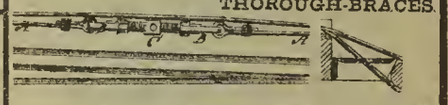
100,066, WILLIAM B. PRESTON.
STEELYARDS.



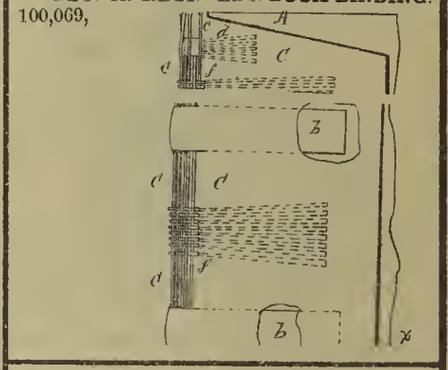
ROBERT PRICE. PICTURE ENVELOPES.
100,067,



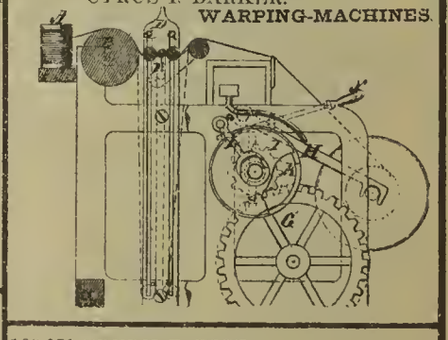
100,068, JAMES E. REQUA.
THOROUGH-BRACES.



GEO. H. REYNOLDS. BOOK-BINDING.
100,069,

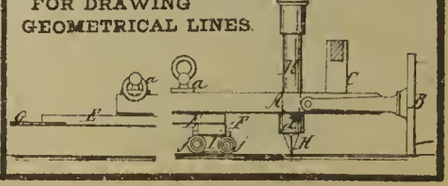


100,070, ROSCOE C. REYNOLDS.
CYRUS I. BARKER.
WARPING-MACHINES.

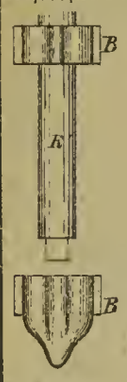


100,071, EDWIN T. RICE.
PROCESS OF BLEACHING AND CLEANING VEGETABLE FIBERS.

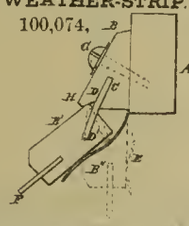
100,072, WM. RITCHIE. INSTRUMENTS FOR DRAWING GEOMETRICAL LINES.



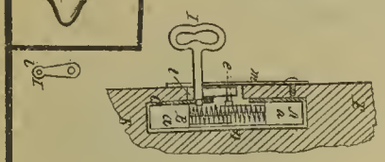
JOHN R. ROBERTSON.
100,073, STOVE-SHELF.



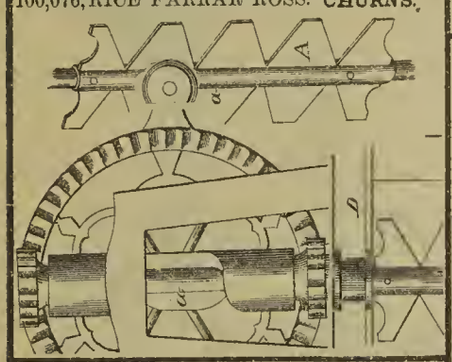
HORACE A. ROBISON.
WEATHER-STRIP.
100,074,



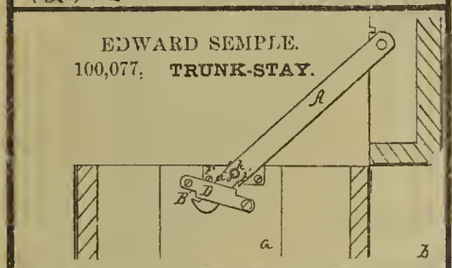
CHARLES W. ROCKHOLD.
100,075, SASH-HOLDERS.



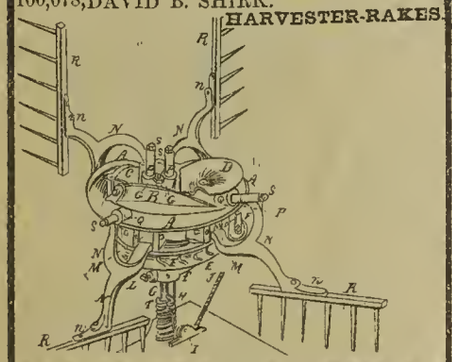
100,076, RICE FARRAR ROSS. CHURNS.



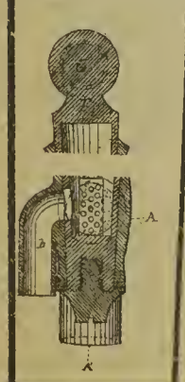
EDWARD SEMPLE.
100,077, TRUNK-STAY.



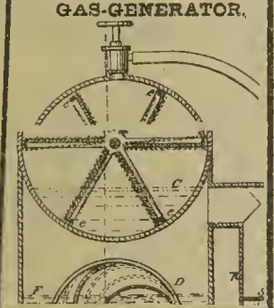
100,078, DAVID B. SHIRK.
HARVESTER-RAKES.



100,079, MONTGOMERY P. SIMONS.
FAUCET-FILTERS.

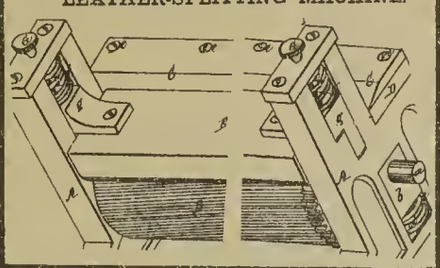


WILLIAM SNODGRASS
100,080, PORTABLE
GAS-GENERATOR.

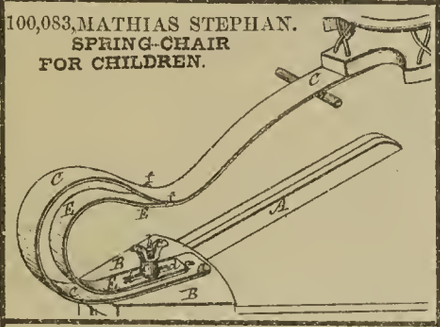


100,081, WM. D. ST. CLAIR.
COMPOUND TO BE USED
AS AN ARTICLE OF DIET.

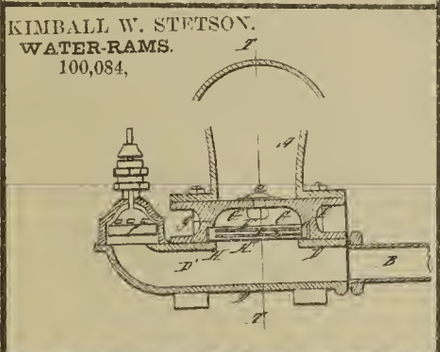
100,082, CALEB S. STEARNS.
LEATHER-SPLITTING MACHINE.



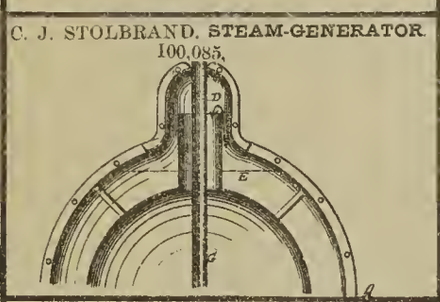
100,083, MATHIAS STEPHAN.
SPRING-CHAIR
FOR CHILDREN.



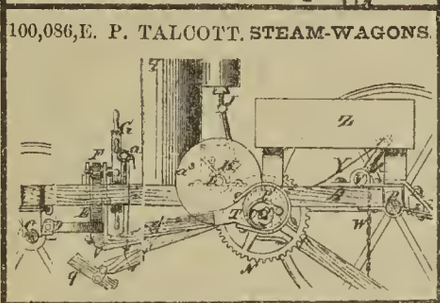
KIMBALL W. STETSON.
WATER-RAMS.
100,084,



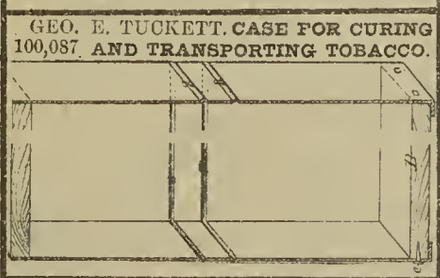
C. J. STOLBRAND. STEAM-GENERATOR.
100,085,



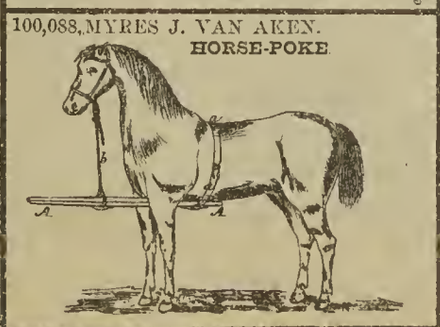
100,086, E. P. TALCOTT. STEAM-WAGONS.



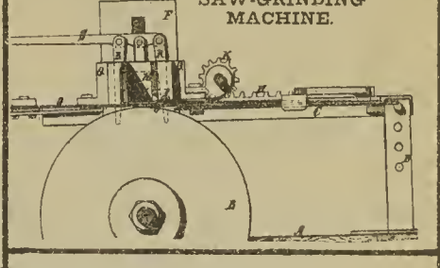
GEO. E. TUCKETT. CASE FOR CURING
100,087, AND TRANSPORTING TOBACCO.



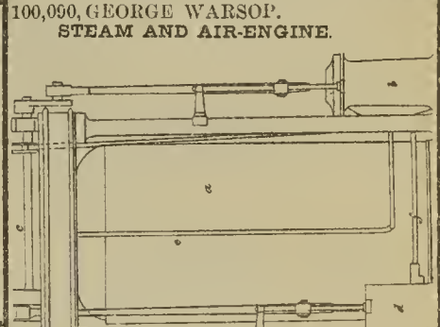
100,088, MYRES J. VAN AKEN.
HORSE-POKE.



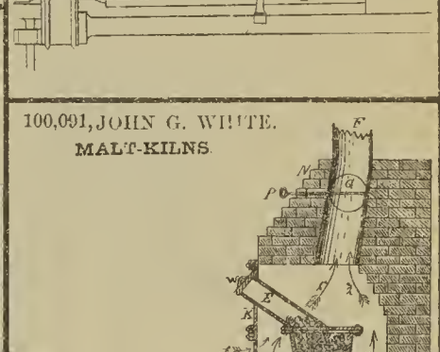
100,089, GEO. WALKER.
SAW-GRINDING
MACHINE.



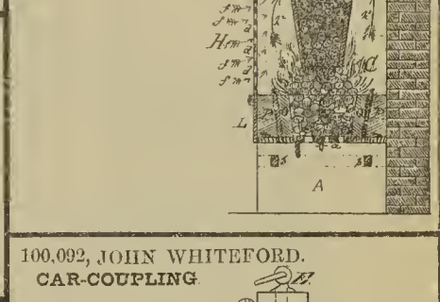
100,090, GEORGE WARSOP.
STEAM AND AIR-ENGINE.



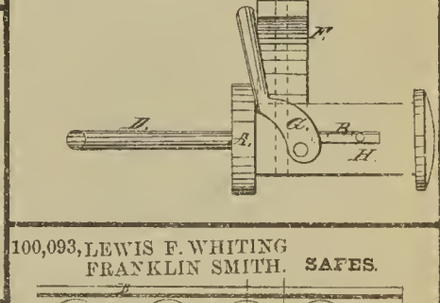
100,091, JOHN G. WHITE.
MALT-KILNS.



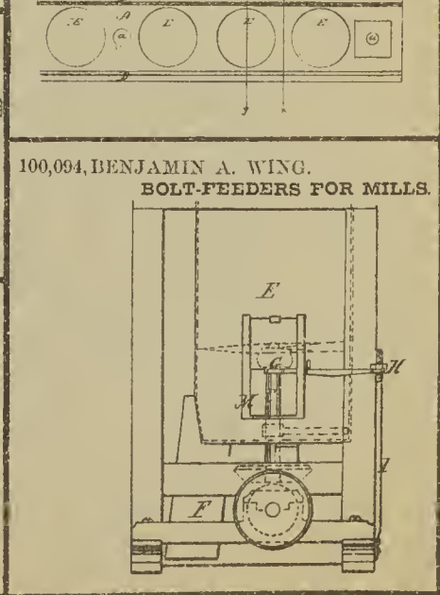
100,092, JOHN WHITEFORD.
CAR-COUPLING.

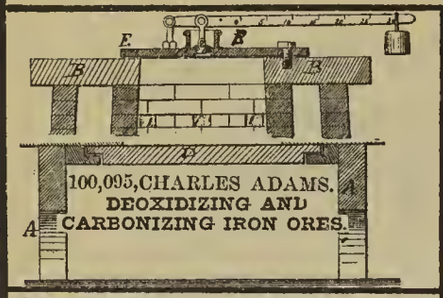


100,093, LEWIS F. WHITING
FRANKLIN SMITH. SAFES.



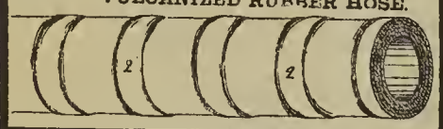
100,094, BENJAMIN A. WING.
BOLT-FEEDERS FOR MILLS.



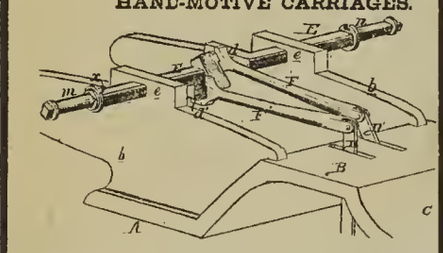


100,095, CHARLES ADAMS. DEOXIDIZING AND CARBONIZING IRON ORES.

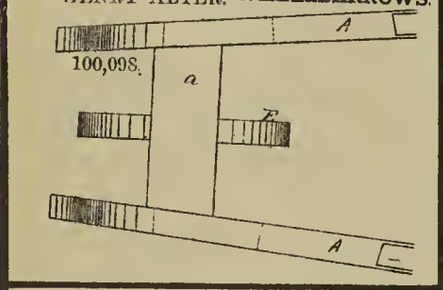
100,096, HENRY A. ALDEN. VULCANIZED RUBBER HOSE.



100,097, JOHN ALLGAIER. HAND-MOTIVE CARRIAGES.

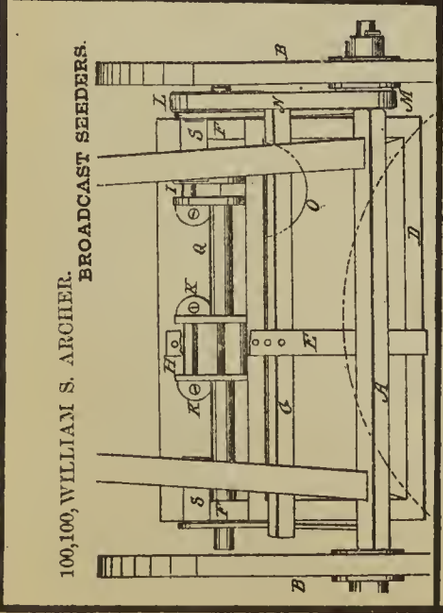


HENRY ALTER. WHEELBARROWS. 100,098.

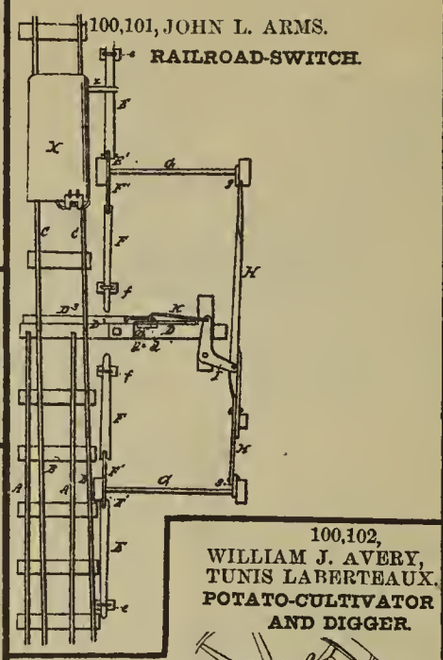


100,099, JONAS A. ANDERSON. PHOTOGRAPHIC SCREENS.

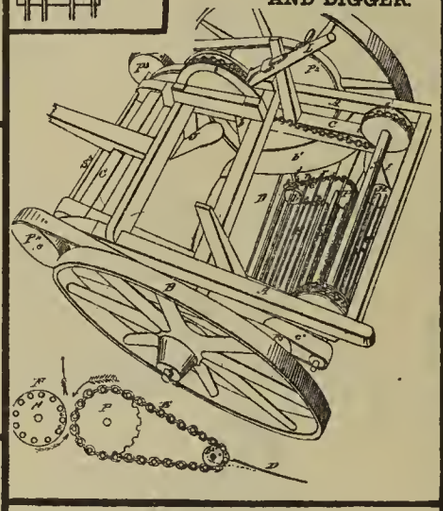
100,100, WILLIAM S. ARCHER. BROADCAST SEEDERS.



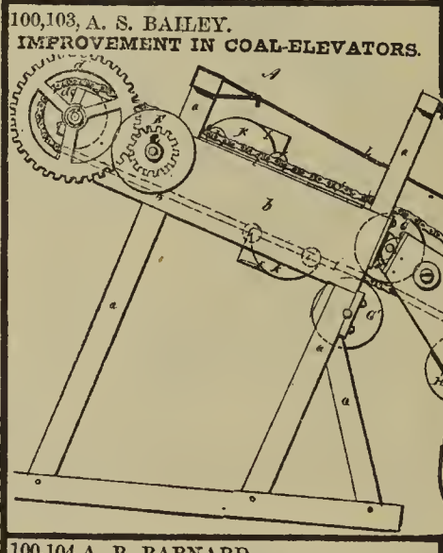
100,101, JOHN L. ARMS. RAILROAD-SWITCH.



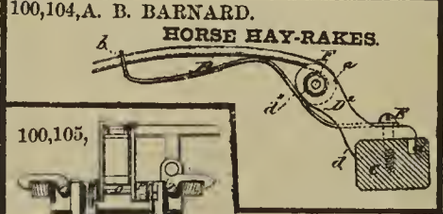
100,102, WILLIAM J. AVERY, TUNIS LABERTEAUX. POTATO-CULTIVATOR AND DIGGER.



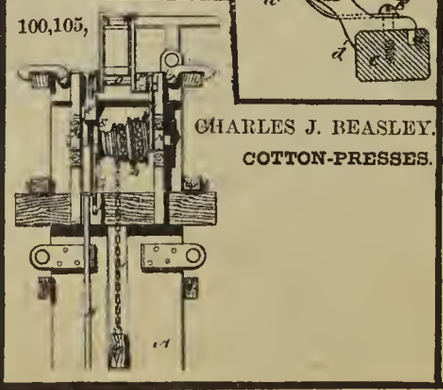
100,103, A. S. BAILEY. IMPROVEMENT IN COAL-ELEVATORS.



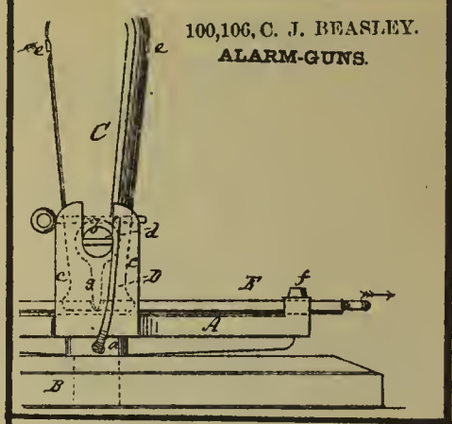
100,104, A. B. BARNARD. HORSE HAY-RAKES.



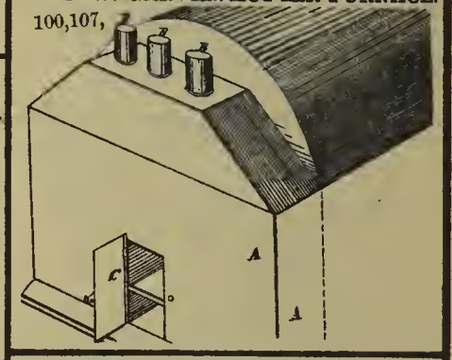
100,105, CHARLES J. BEASLEY. COTTON-PRESSES.



100,106, C. J. BEASLEY. ALARM-GUNS.



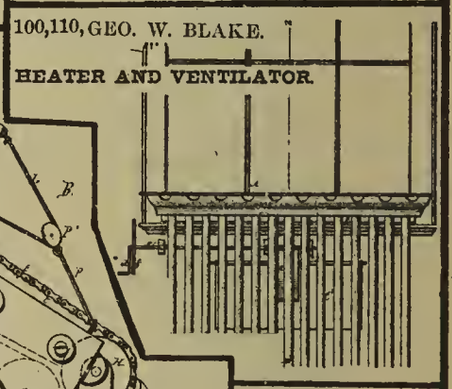
OSCAR BELLMAN. JOHN W. GARVER. HOT-AIR FURNACE. 100,107.



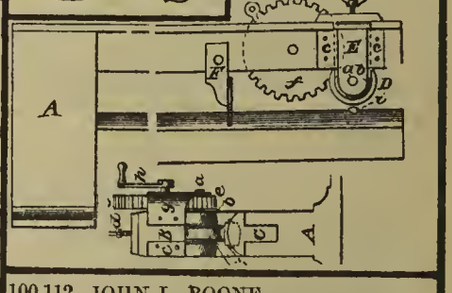
100,108. C. S. BENJAMIN. EDWARD STORY. PAINT-BRUSH

100,109. E. B. BINGHAM. MANUFACTURE OF PAPER.

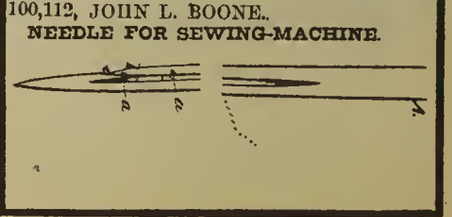
100,110, GEO. W. BLAKE. HEATER AND VENTILATOR.



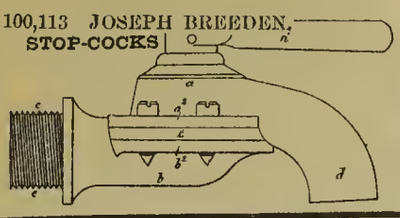
100,111, C. F. BLIESENICK. MACHINE FOR GROOVING SHEET-METAL.



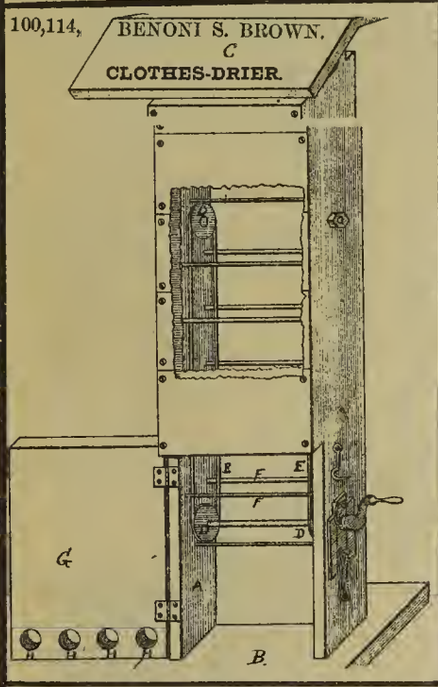
100,112, JOHN L. BOONE. NEEDLE FOR SEWING-MACHINE.



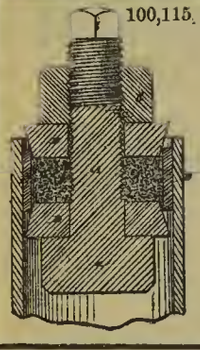
100,113 JOSEPH BREEDEN. STOP-COCKS



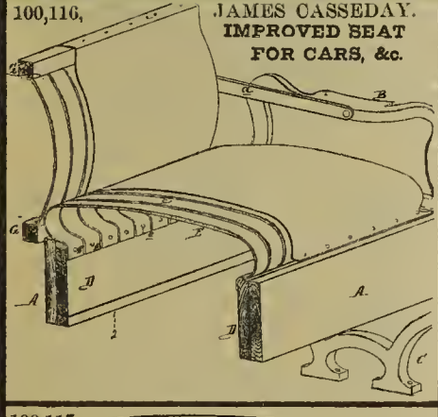
100,114, BENONI S. BROWN. CLOTHES-DRIER.



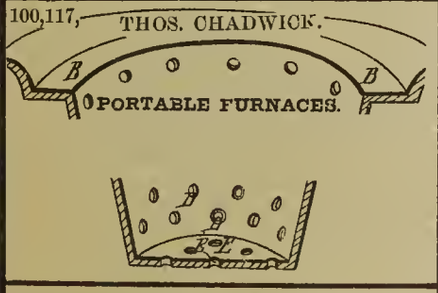
100,115. WILLIAM BROWN. TUBE-STOPPER.



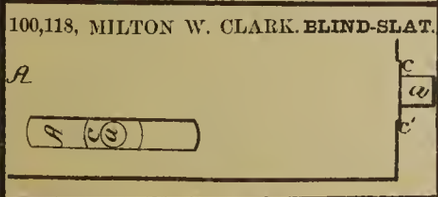
100,116, JAMES CASSEDAY. IMPROVED SEAT FOR CARS, &c.



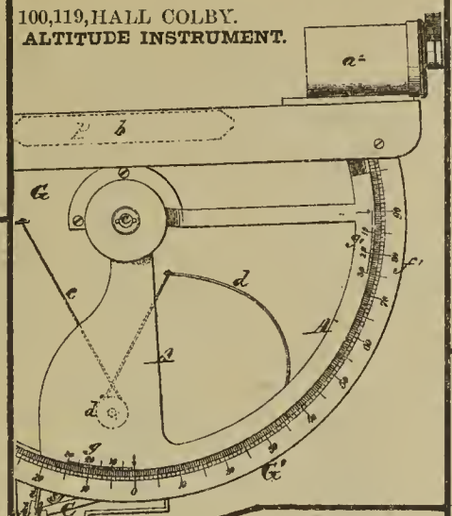
100,117, THOS. CHADWICK. PORTABLE FURNACES.



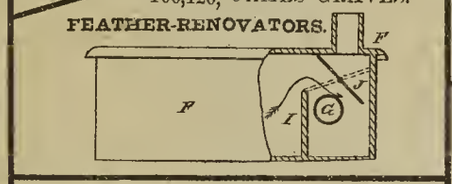
100,118, MILTON W. CLARK. BLIND-SLAT.



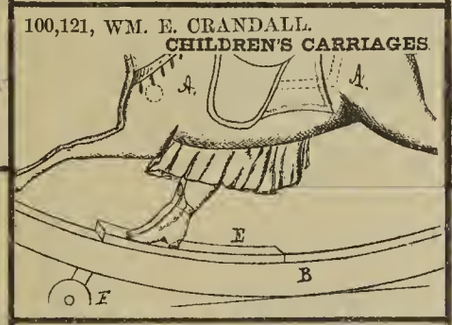
100,119, HALL COLBY. ALTITUDE INSTRUMENT.



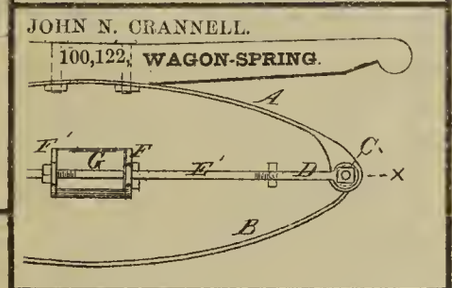
ABEL D. COOK. 100,120, JAMES GRAVES. FEATHER-RENOVATORS.



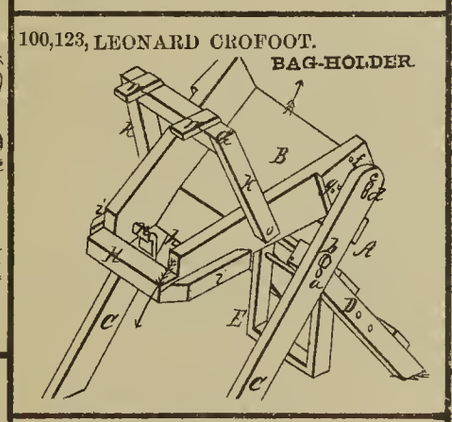
100,121, WM. E. CRANDALL. CHILDREN'S CARRIAGES.



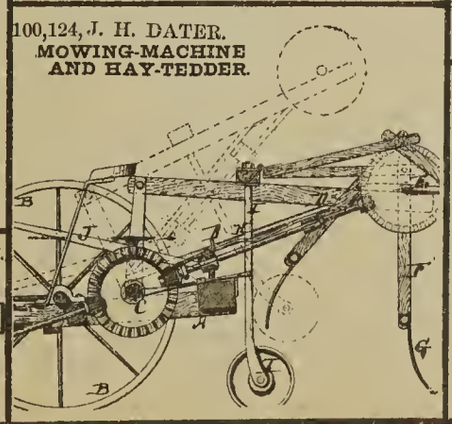
JOHN N. CRANNELL. 100,122, WAGON-SPRING.



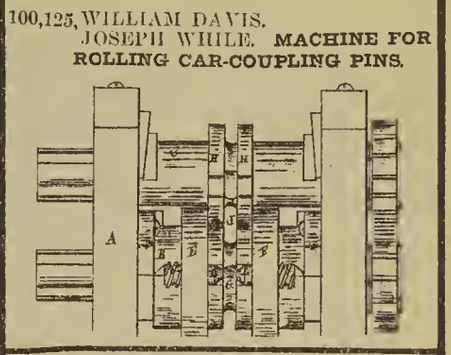
100,123, LEONARD CROFOOT. BAG-HOLDER.



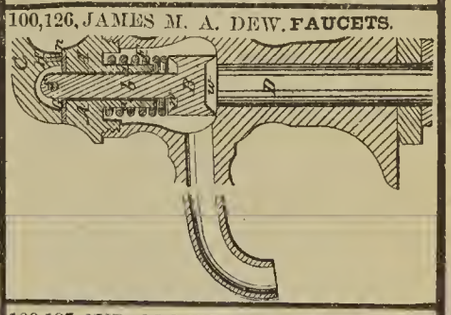
100,124, J. H. DATER. MOWING-MACHINE AND HAY-TEDDER.



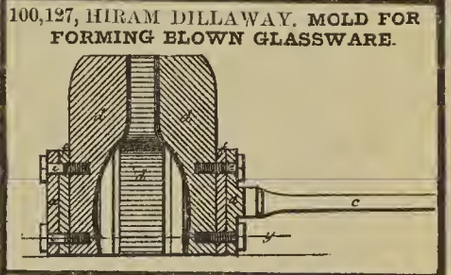
100,125, WILLIAM DAVIS. JOSEPH WHILE. MACHINE FOR ROLLING CAR-COUPLING PINS.



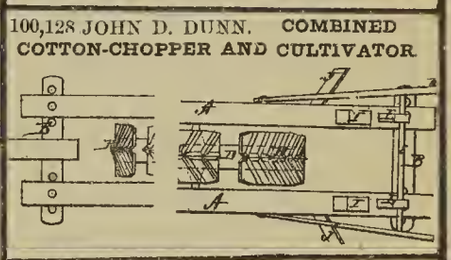
100,126, JAMES M. A. DEW. FAUCETS.



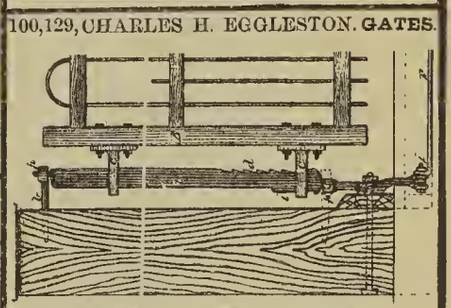
100,127, HIRAM DILLAWAY. MOLD FOR FORMING BLOWN GLASSWARE.



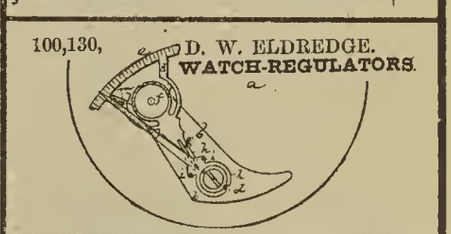
100,128 JOHN D. DUNN. COMBINED COTTON-CHOPPER AND CULTIVATOR.



100,129, CHARLES H. EGGLESTON. GATES.

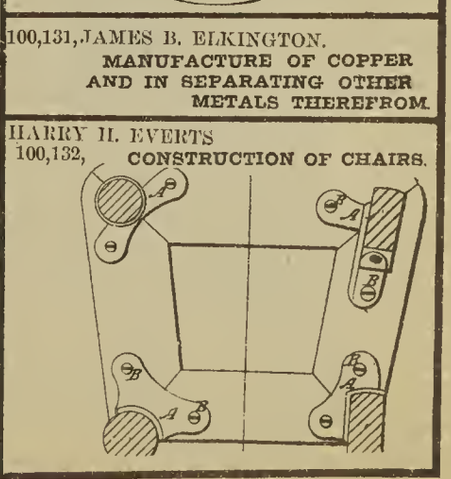


100,130, D. W. ELDREDGE. WATCH-REGULATORS.

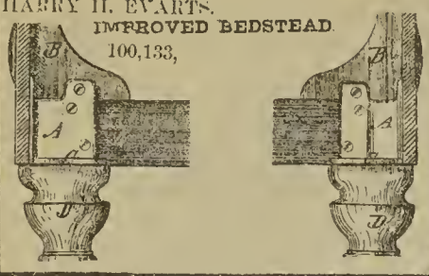


100,131, JAMES B. ELKINGTON. MANUFACTURE OF COPPER AND IN SEPARATING OTHER METALS THEREFROM.

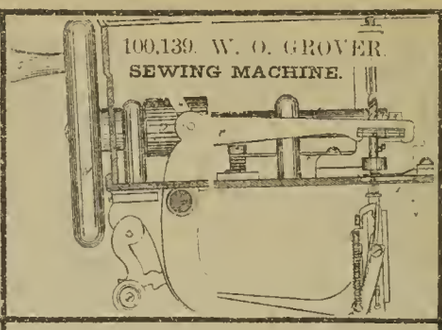
HARRY H. EVERTS 100,132, CONSTRUCTION OF CHAIRS.

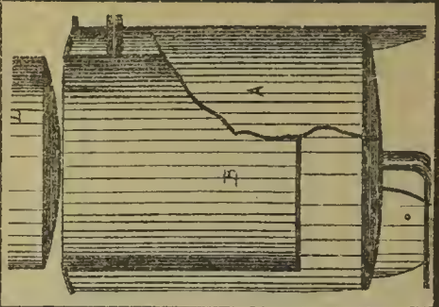


HARRY H. EVARTS.
IMPROVED BEDSTEAD.
100,133,

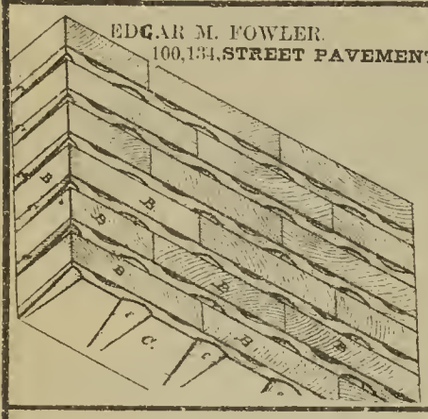


100,139. W. O. GROVER.
SEWING MACHINE.

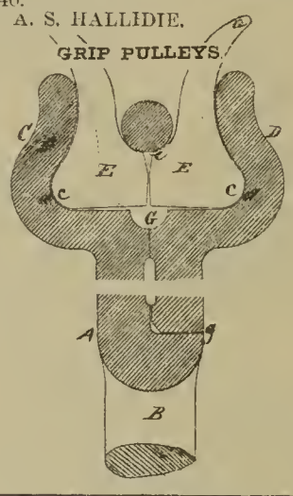




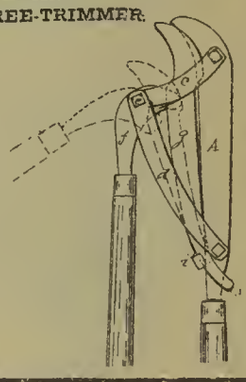
EDGAR M. FOWLER.
100,134, STREET PAVEMENT.



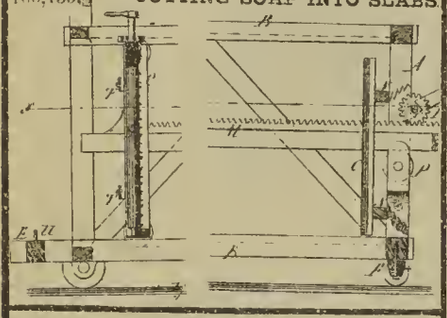
100,140.
A. S. HALLIDIE.
GRIP PULLEYS.



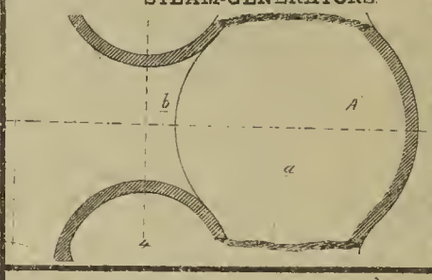
100,145. CALEB E. HEALY.
HEDGE AND TREE-TRIMMER.



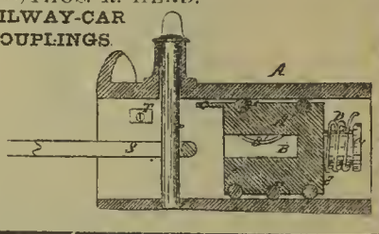
JOSEPH his × mark GALLIPO.
MACHINE FOR
100,135, CUTTING SOAP INTO SLABS.



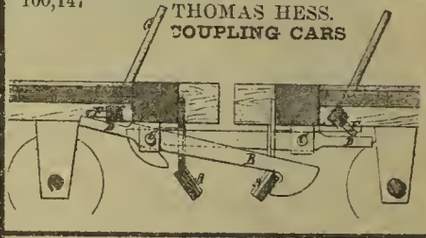
100,141, JOSEPH HARRISON, JR.
STEAM-GENERATORS.



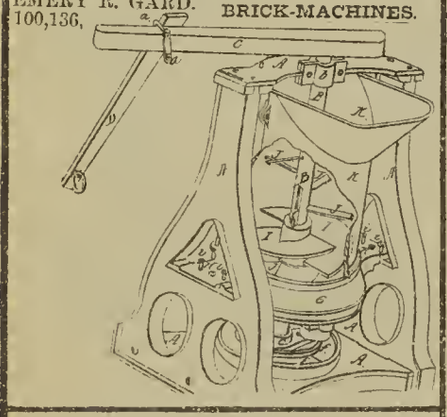
100,146, THOS. R. HERD.
RAILWAY-CAR
COUPLINGS.



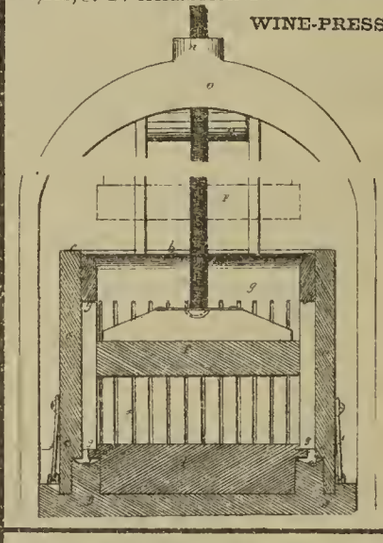
100,147
THOMAS HESS.
COUPLING CARS



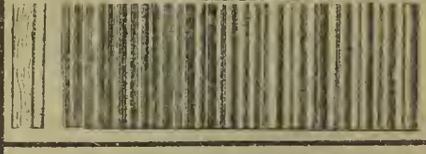
BENJAMIN M. GARD.
EMERY R. GARD.
100,136,
BRICK-MACHINES.



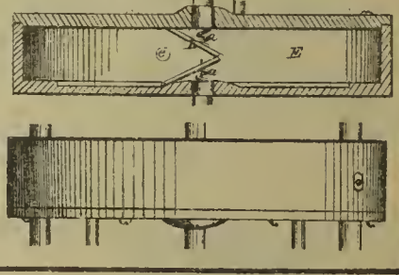
100,142, C. F. HARTMANN.
WINE-PRESSES.



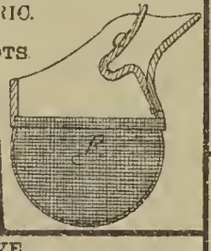
100,148, T. N. HICKCOX.
METALLIC ROOFING.



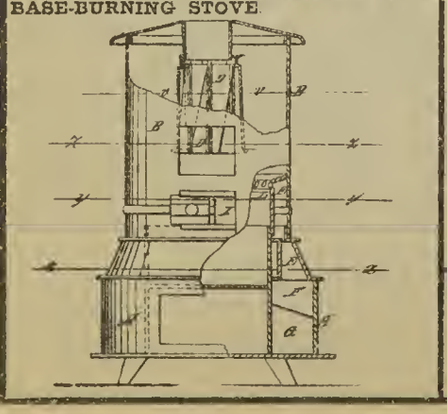
100,149. JACOB W. HILL.
THOMAS ROBERTS.
ROTARY STEAM-ENGINE.



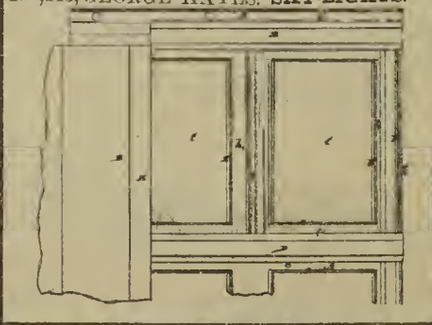
100,137, C. L. GILPATRIC.
STRAINER
FOR COFFEE-POTS.



100,138.
J.H. GOODFELLOW.
BASE-BURNING STOVE.

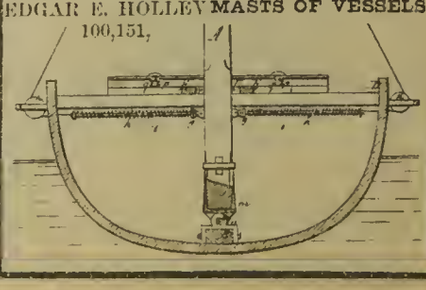


100,143, GEORGE HAYES. SKY-LIGHTS.



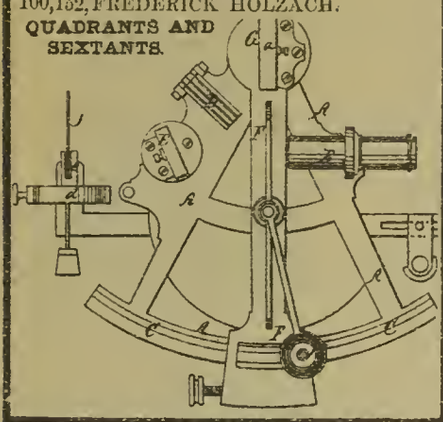
100,150.
LOCK FOR WAGON-SEATS.
EDGAR HITT.

EDGAR E. HOLLEY.
MASTS OF VESSELS.
100,151,

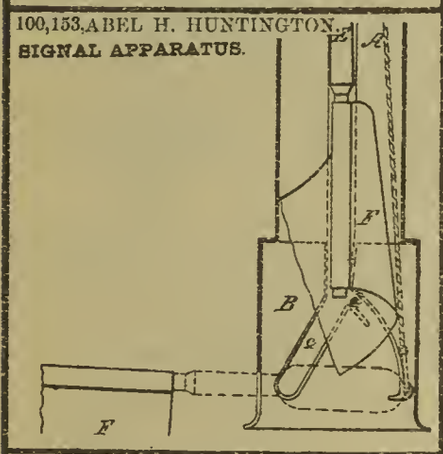


100,144, H. K. HAZLETT.
FEED-WATER PURIFIER
FOR STEAM-GENERATORS.

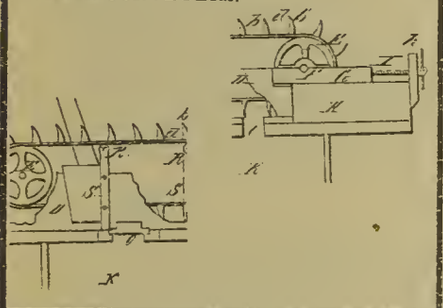
100,152, FREDERICK HOLZACH.
QUADRANTS AND SEXTANTS.



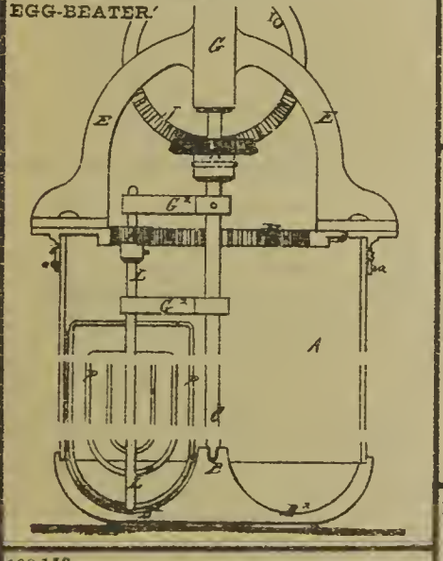
100,153, ABEL H. HUNTINGTON.
SIGNAL APPARATUS.



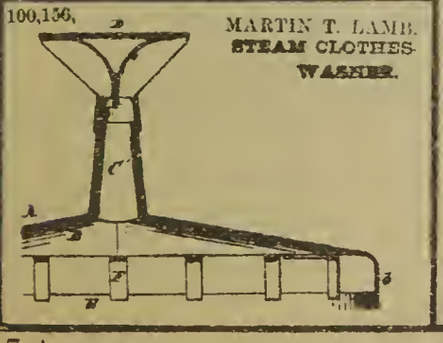
100,154, OLOF JOHNSON.
CARL O. WALL.
GRAIN-CONVEYERS.



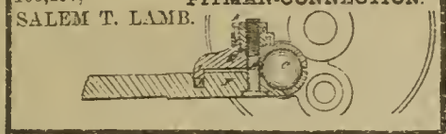
100,155 FRANK KRANDELT.
EGG-BEATER.



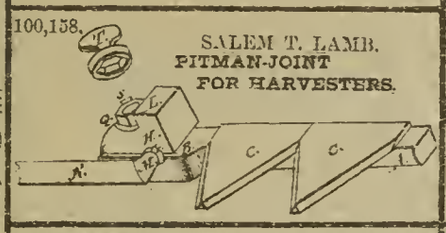
100,156, MARTIN T. LAMB.
STEAM CLOTHES-WASHER.



100,157, SALEM T. LAMB.
PITMAN-CONNECTION.

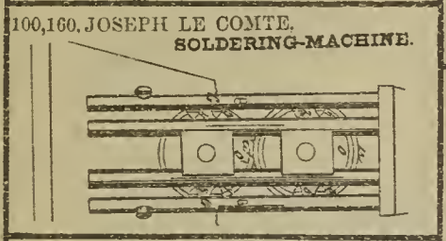


100,158, SALEM T. LAMB.
PITMAN-JOINT FOR HARVESTERS.

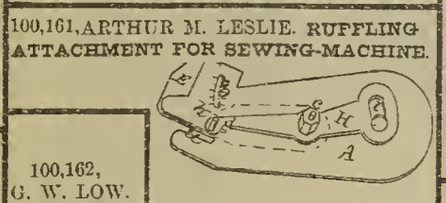


PITMAN-JOINT FOR HARVESTERS.
100,159, SALEM T. LAMB.

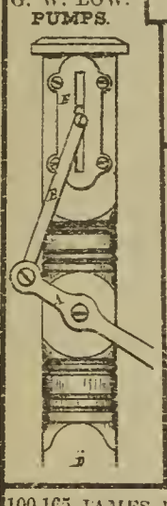
100,160, JOSEPH LE COMTE.
SOLDERING-MACHINE.



100,161, ARTHUR M. LESLIE. RUFFLING ATTACHMENT FOR SEWING-MACHINE.

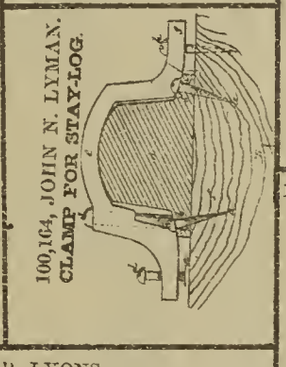


100,162, G. W. LOW.
PUMPS.

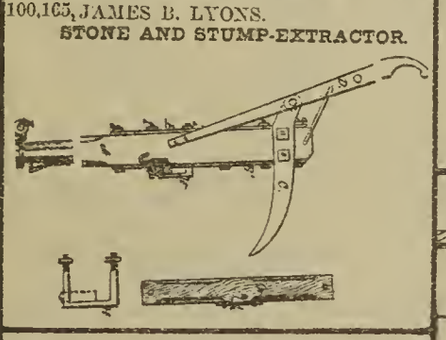


100,163, ORAZIO LUGO.
MANUFACTURE OF FERTILIZERS FROM ANIMAL SUBSTANCES.

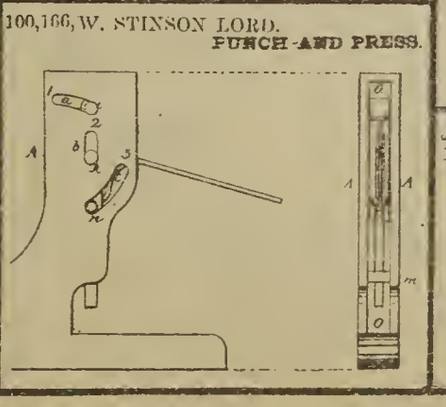
100,164, JOHN N. LYMAN.
CLAMP FOR STAY-LOG.



100,165, JAMES B. LYONS.
STONE AND STUMP-EXTRACTOR.

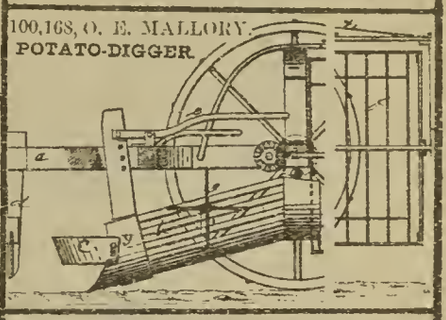


100,166, W. STINSON LORD.
PUNCH AND PRESS.

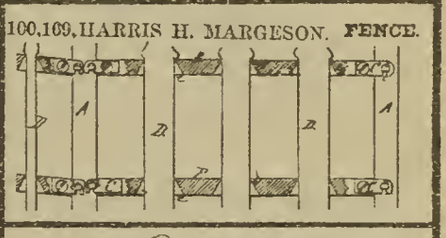


100,167, PATRICK N. MACKAY.
ROOFING AND FLOORING.

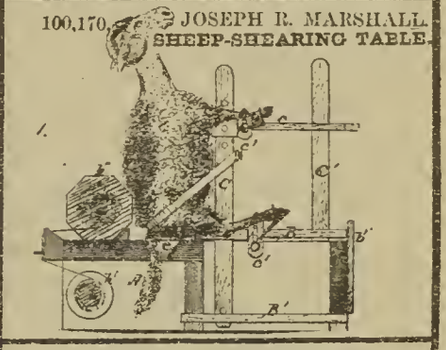
100,168, O. E. MALLORY.
POTATO-DIGGER.



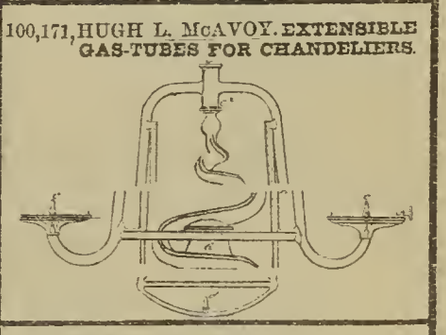
100,169, HARRIS H. MARGESON. FENCE.



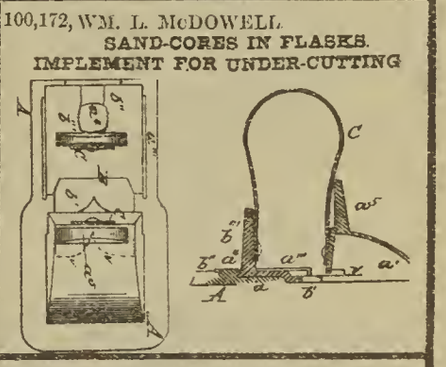
100,170, JOSEPH R. MARSHALL.
SHEEP-SHEARING TABLE.



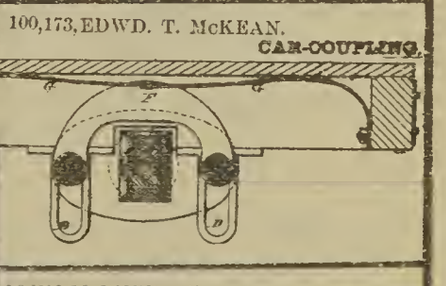
100,171, HUGH L. McAVOY. EXTENSIBLE GAS-TUBES FOR CHANDELIERS.



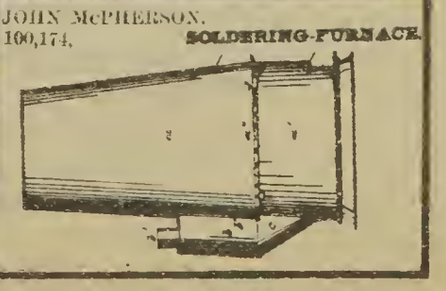
100,172, WM. L. McDOWELL.
SAND-CORES IN FLASKS.
IMPLEMENT FOR UNDER-CUTTING



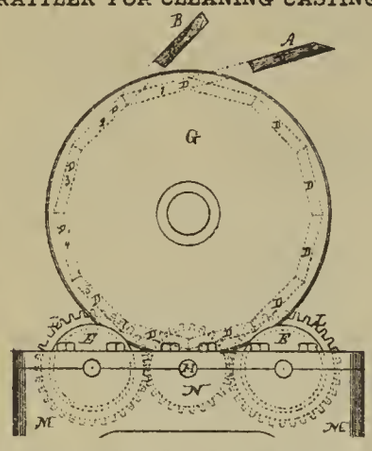
100,173, EDWD. T. McKEAN.
CAR-COUPLING.



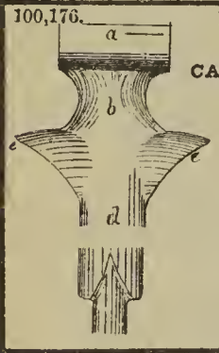
JOHN McPHERSON.
100,174. SOLDERING-FURNACE.



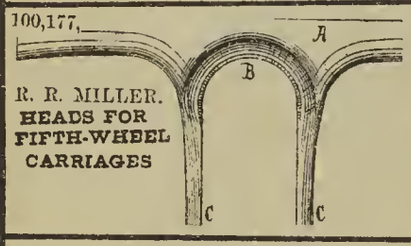
100,175, GEORGE MILLER. GRINDER OR RATTLER FOR CLEANING CASTINGS



100,176. R. R. MILLER. JACKS FOR CARRIAGE-SPRINGS.

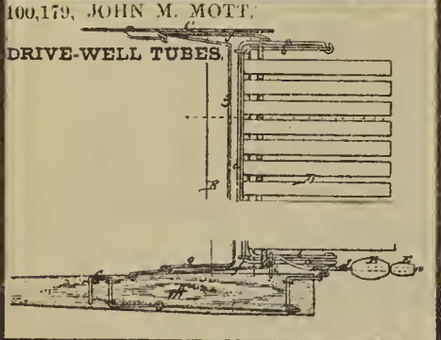


100,177, R. R. MILLER. HEADS FOR FIFTH-WHEEL CARRIAGES



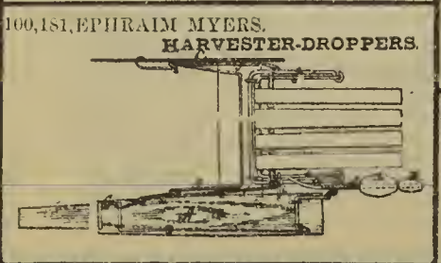
100,178, F. B. MORSE. DIE FOR FORMING THE HEADS OF KING-BOLTS.

100,179, JOHN M. MOTT. DRIVE-WELL TUBES.

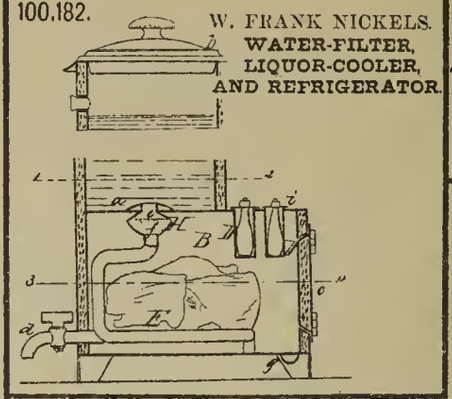


100,180, ALBERT L. MURPHY. HORSESHOES.

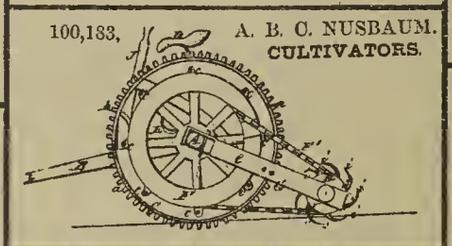
100,181, EPHRAIM MYERS. HARVESTER-DROPPERS.



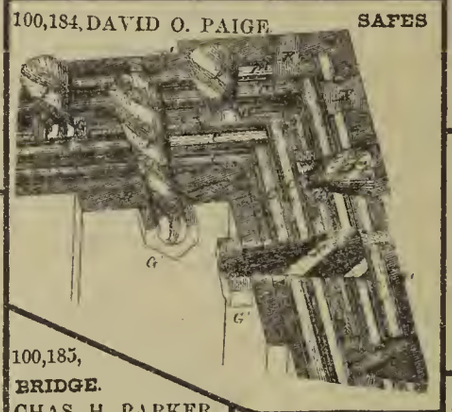
100,182. W. FRANK NICKELS. WATER-FILTER, LIQUOR-COOLER, AND REFRIGERATOR.



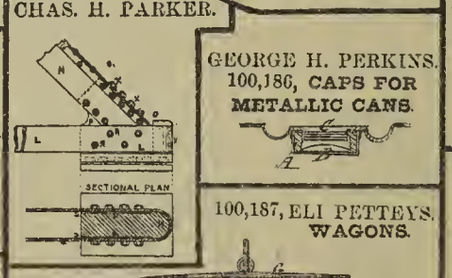
100,183, A. B. C. NUSBAUM. CULTIVATORS.



100,184, DAVID O. PAIGE. SAFES

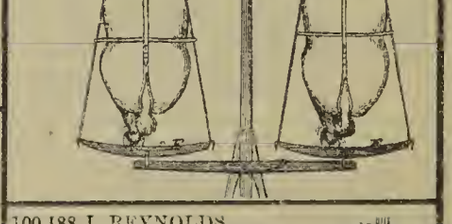


100,185, BRIDGE. CHAS. H. PARKER.

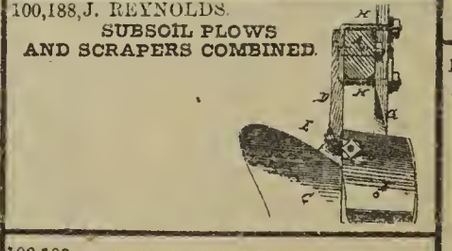


GEORGE H. PERKINS. 100,186, CAPS FOR METALLIC CANS.

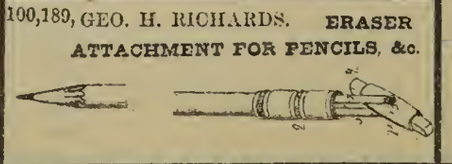
100,187, ELI PETTEYS. WAGONS.



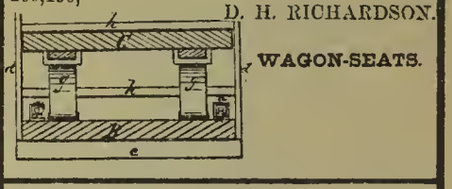
100,188, J. REYNOLDS. SUBSOIL PLOWS AND SCRAPERS COMBINED.



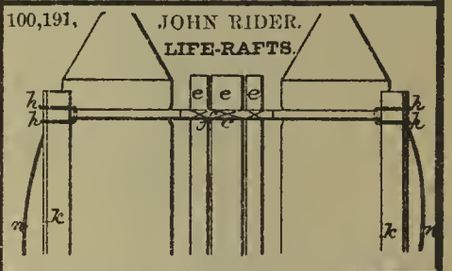
100,189, GEO. H. RICHARDS. ERASER ATTACHMENT FOR PENCILS, &c.



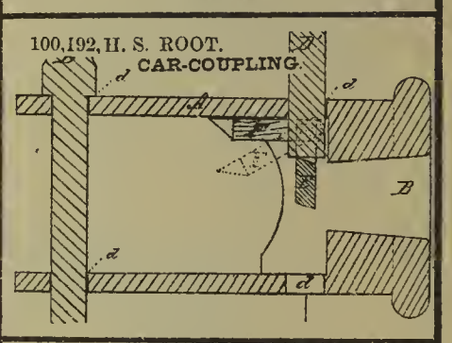
100,190, D. H. RICHARDSON. WAGON-SEATS.



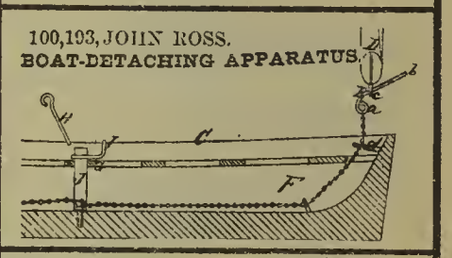
100,191, JOHN RIDER. LIFE-RAFTS.



100,192, H. S. ROOT. CAR-COUPLING.

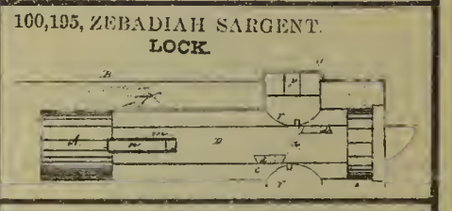


100,193, JOHN ROSS. BOAT-DETACHING APPARATUS.

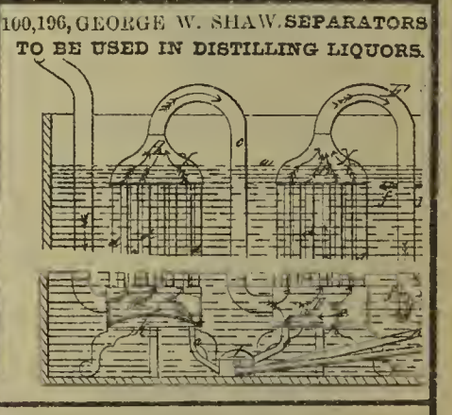


100,194, J. B. SARGENT. WARDROBE-HOOKS.

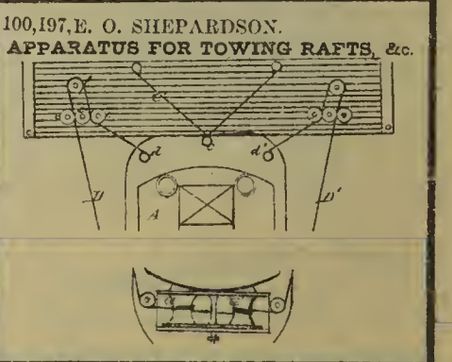
100,195, ZEBADIAH SARGENT. LOCK.



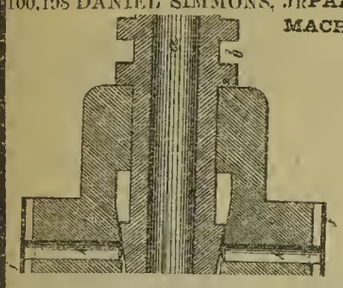
100,196, GEORGE W. SHAW. SEPARATORS TO BE USED IN DISTILLING LIQUORS.



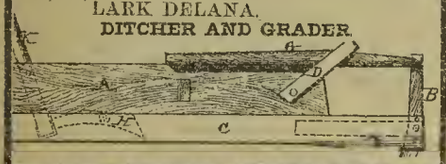
100,197, E. O. SHEPARDSON. APPARATUS FOR TOWING RAFTS, &c.



100,198 DANIEL SIMMONS, JR. PAPER-BOX MACHINES.

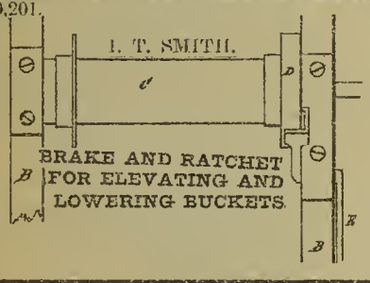


100,199, J. G. SISSON. LARK DELANA. DITCHER AND GRADER.



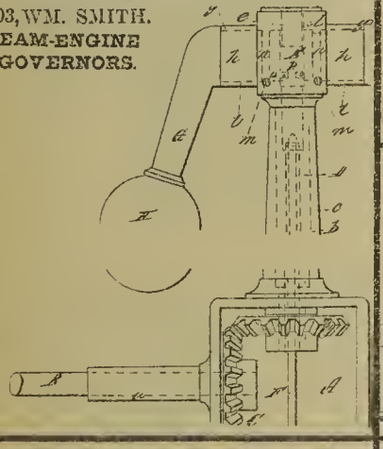
100,200, E. W. SKINNER. HARVESTER-RAKES.

100,201. I. T. SMITH. BRAKE AND RATCHET FOR ELEVATING AND LOWERING BUCKETS.

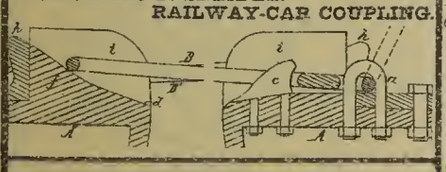


100,202, LUTHER L. SMITH. NEGATIVE PLATE FOR A "SMEE" BATTERY.

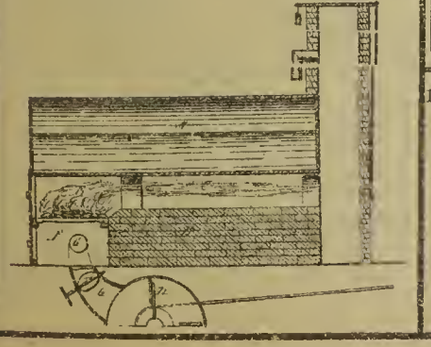
100,203, WM. SMITH. STEAM-ENGINE GOVERNORS.



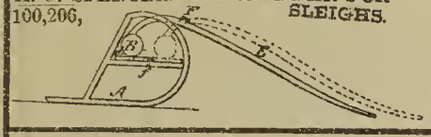
100,204, ELIAS F. SNEIDER. RAILWAY-CAR COUPLING.



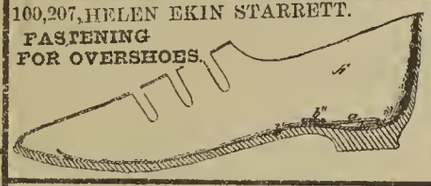
100,205, THOMAS S. SPEAKMAN. FURNACES.



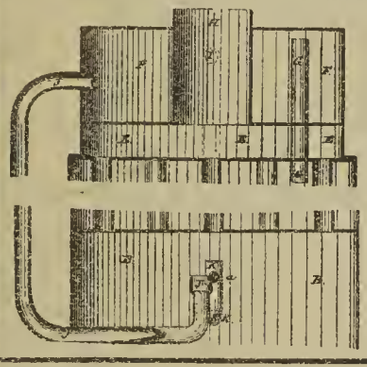
A. J. SPENCER. 100,206, SHIFTING-BAR FOR SLEIGHS.



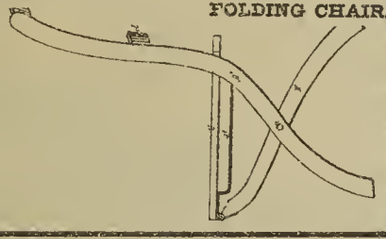
100,207, HELEN EKIN STARRETT. FASTENING FOR OVERSHOES.



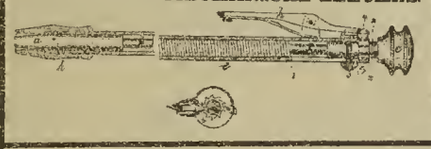
100,208. L. STEVENS. MANUFACTURE OF GAS FROM PETROLEUM



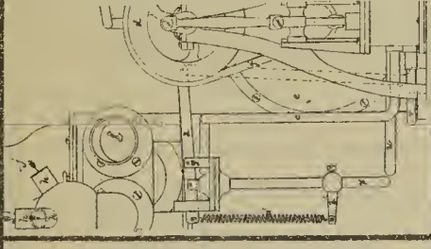
100,209, ALEXANDER W. STEWART. FOLDING CHAIR.



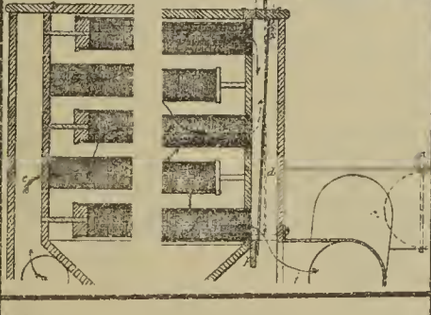
100,210, ANDREW H. SMITH. FREDK. A. STOHLMANN. MECHANICAL LEECHES.



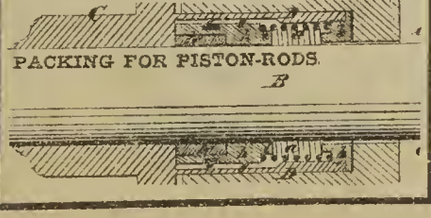
100,211, B. F. STURTEVANT. HEATING AND VENTILATING APPARATUS.



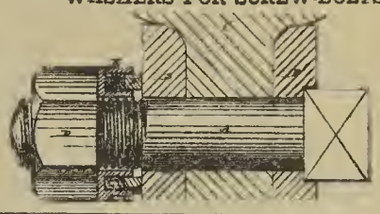
100,212, B. F. STURTEVANT. GRAIN-DRIER.



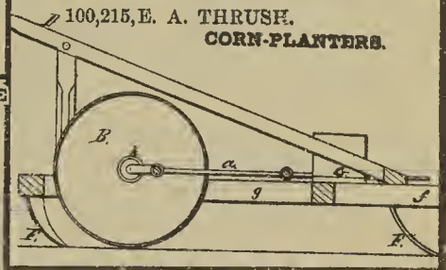
100,213, CHARLES THAYER. DAVID McPHERSON. PACKING FOR PISTON-RODS.



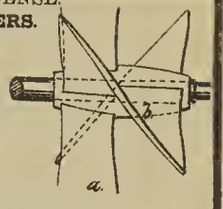
100,214, NATHAN THOMPSON. WASHERS FOR SCREW-BOLTS.



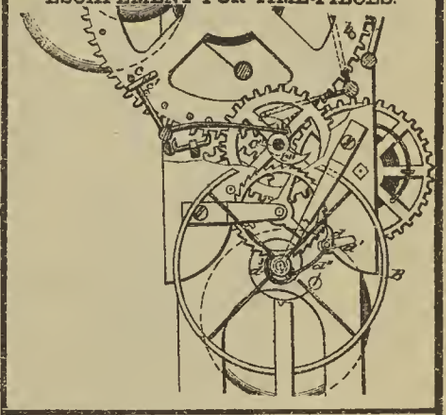
100,215, E. A. THRUSH. CORN-PLANTERS.



100,216, CHARS. G. TOENSE. SCREW-PROPELLERS.

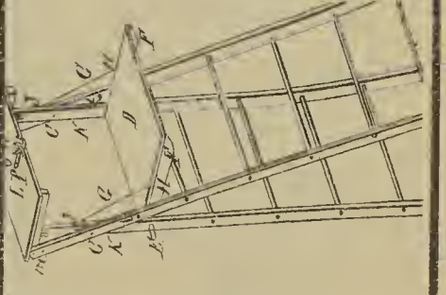


100,217, MICHAEL TROMLY. ESCAPEMENT FOR TIME-PIECES.



100,218, FRIEDRICH ULRICH. SHEARS.

100,219, JAMES H. VERITY. FRUIT-LADDER.



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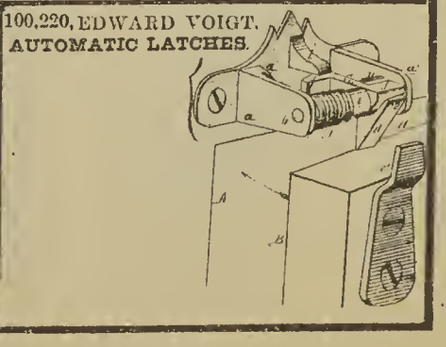
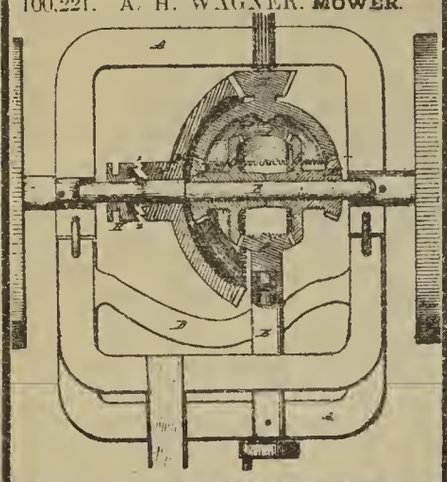


100,221. A. H. WAGNER. MOWER.



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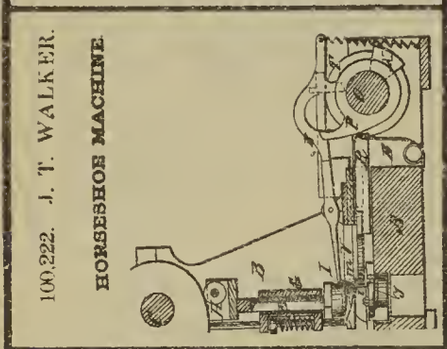
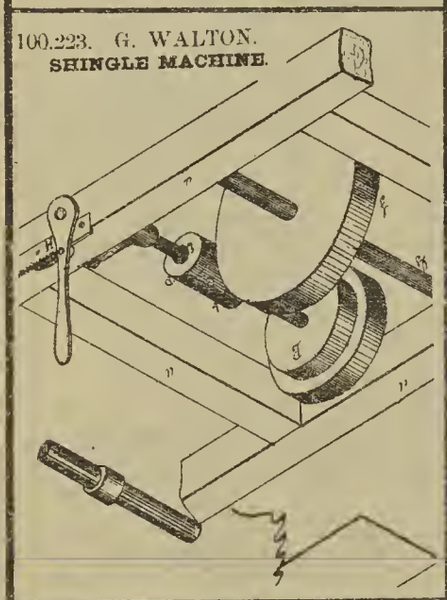
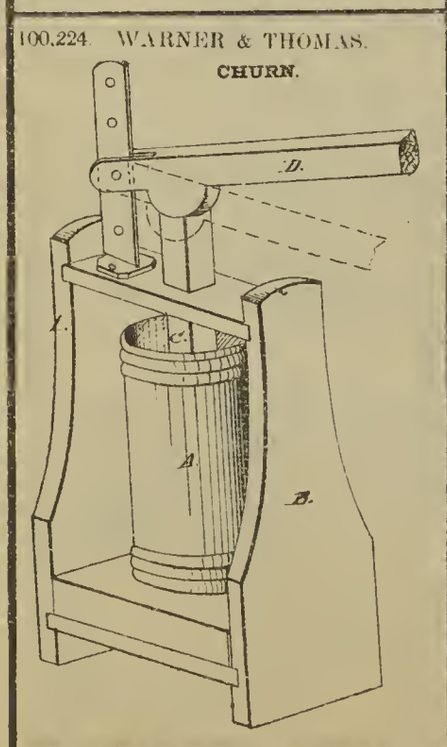


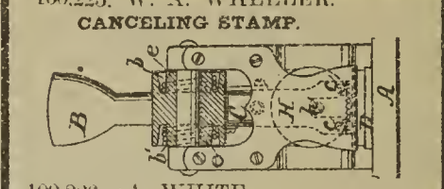
100,223. G. WALTON. SHINGLE MACHINE.



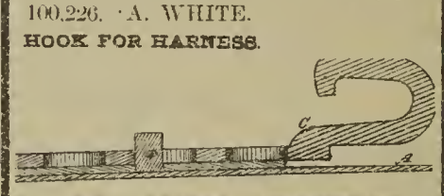
100,224. WARNER & THOMAS. CHURN.



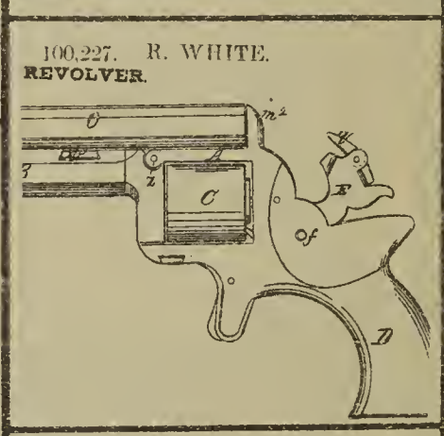
100,225. W. A. WHEELER. CANCELING STAMP.



100,226. A. WHITE. HOOK FOR HARNESS.

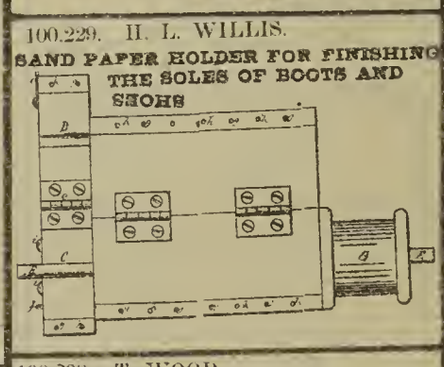


100,227. R. WHITE. REVOLVER.



100,228. F. O. WILLEY. BROOM BRACE.

100,229. H. L. WILLIS. SAND PAPER HOLDER FOR FINISHING THE SOLES OF BOOTS AND SHOES



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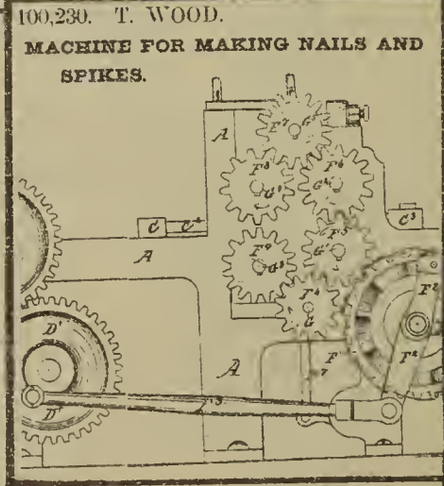

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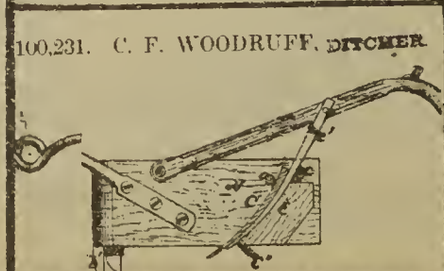
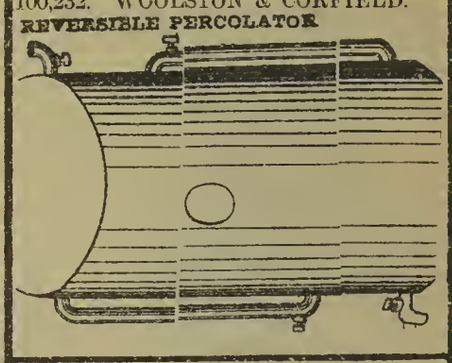
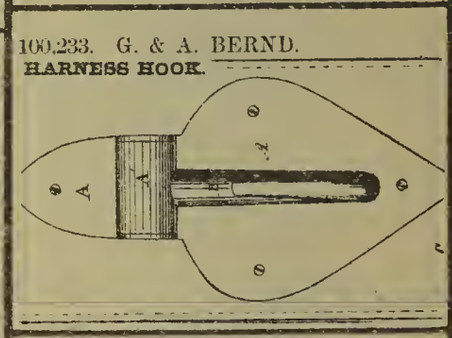


100,232. WOOLSTON & CORFIELD. REVERSIBLE PERCOLATOR.

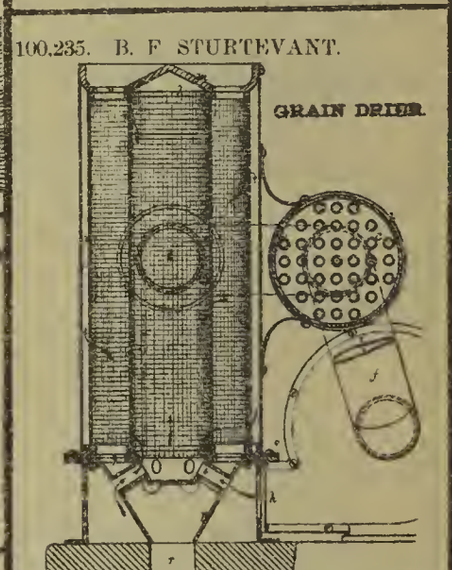


100,233. G. & A. BERND. HARNESS HOOK.



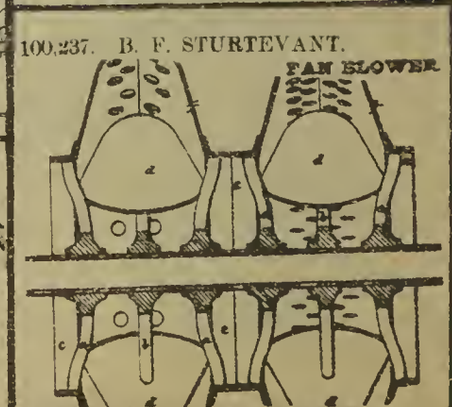
100,234. H. A. BARTLETT. SPICE BOX.

100,235. B. F. STURTEVANT. GRAIN DRIER.



100,236. B. F. STURTEVANT. PRESSURE BLOWER WHEEL.

100,237. B. F. STURTEVANT. FAN BLOWER.



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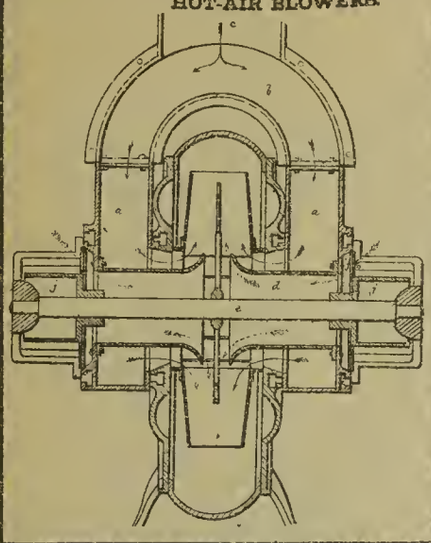
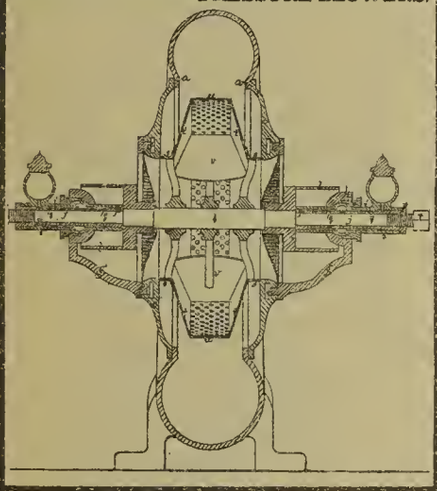
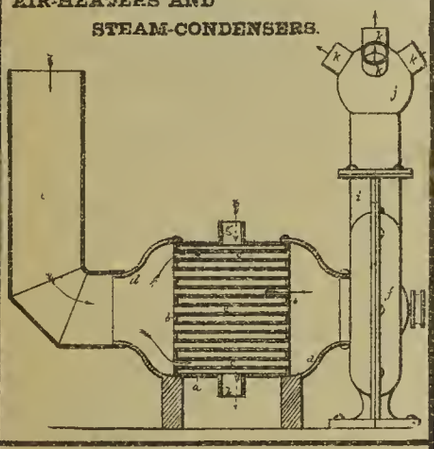
HOT-AIR BLOWERS.



100,239, B. F. STURTEVANT.
PRESSURE-BLOWERS.



100,240, B. F. STURTEVANT. COMPOUND AIR-HEATERS AND STEAM-CONDENSERS.



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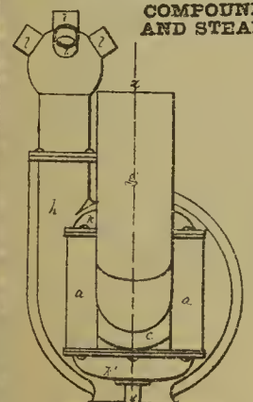
COMPOUND AIR-HEATERS AND STEAM-CONDENSERS.



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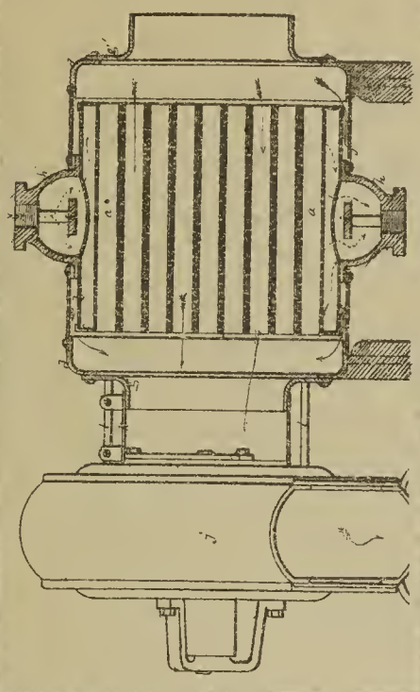
COMPOUND AIR-HEATERS AND STEAM-CONDENSERS.



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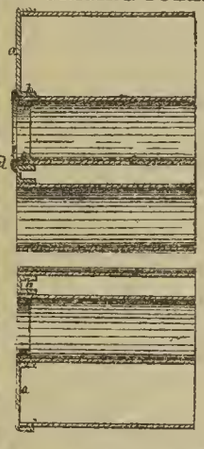
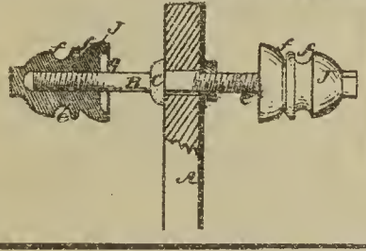
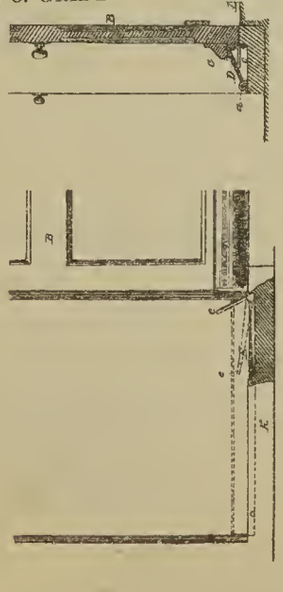
UNITING TUBES TO TUBE-SHEETS.



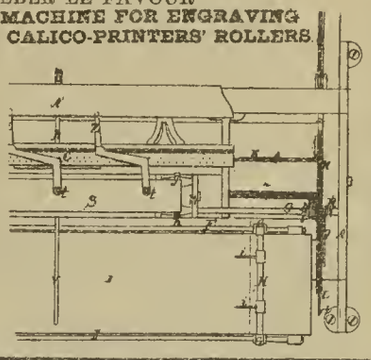
3,847, LOUIS A. CAUVET. INSULATORS.



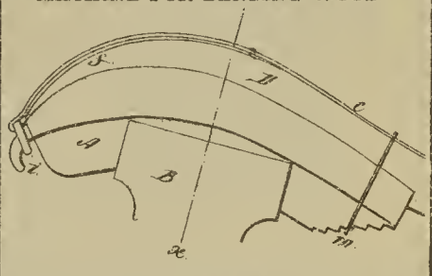
3,848, F. C. GRIDLEY. WEATHER-STRIP.



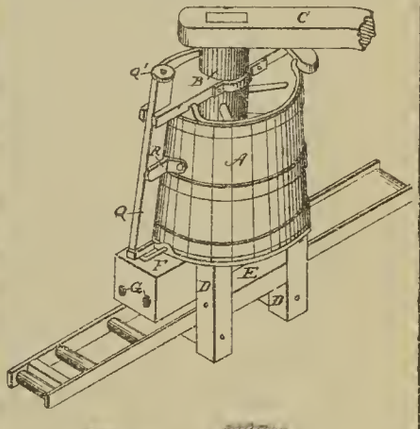
JOHN HOPE. 3,849.
THOMAS HOPE.
HEBER LE FAVOUR
MACHINE FOR ENGRAVING CALICO-PRINTERS' ROLLERS.



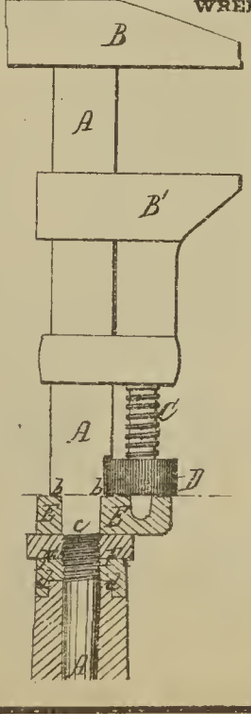
3,850, WM. P. LETCHWORTH.
MACHINE FOR BENDING WOOD.



3,851, F. M. MATTICE. TILE-MACHINES.



3,852, THE COLLINS COMPANY.
WRENCHES



ILLUSTRATIONS OF PATENTS

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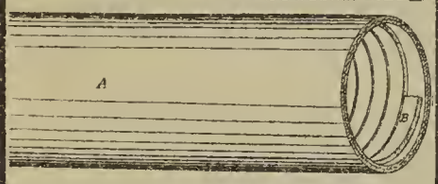
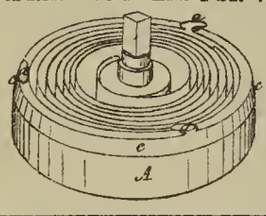
MARCH 1, 1870.

100,244, ALBERT F. ALLEN.
SUCTION-HOSE.



100,245, JOHN P. ALLEN.
MAIN-SPRING BARRELS FOR WATCHES.



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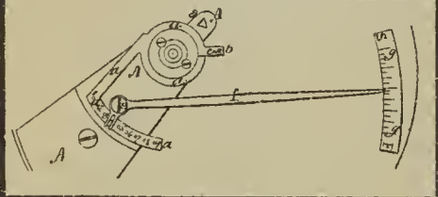
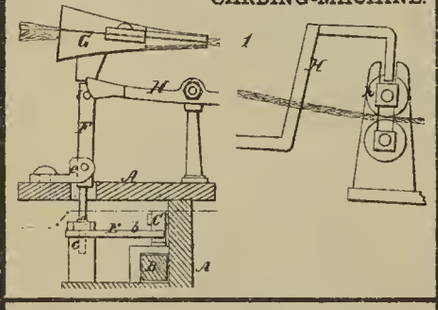
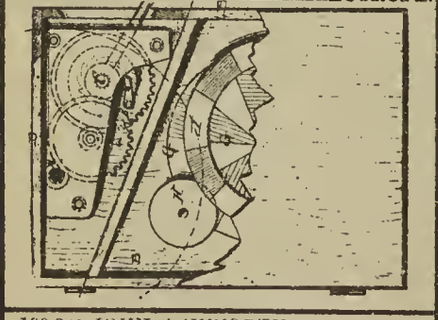
WILLIAM E. BANTA.
WATCH-REGULATORS.



100,247, C. W. ANDERSON.
STOP-MECHANISM FOR CARDING-MACHINE.

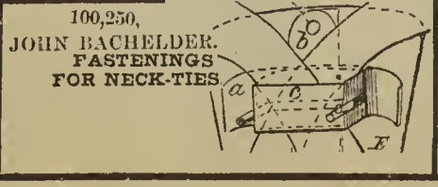


100,248, SMITH W. ANDERSON.
CHAMELEOTROPE.

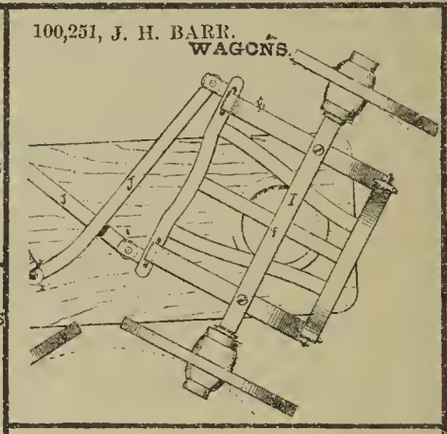


100,249, JOHN ASHWORTH.
STEAM TRAP.

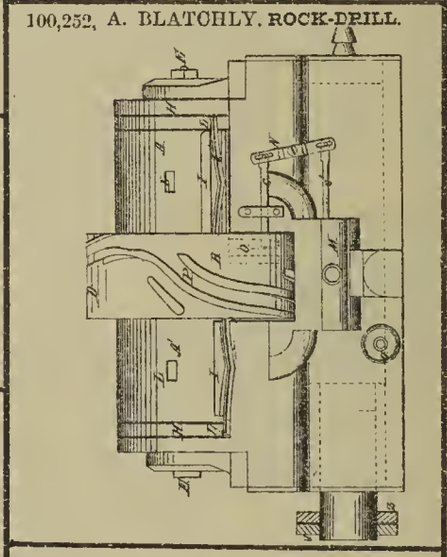
100,250,
JOHN BACHELDER.
FASTENINGS FOR NECK-TIES.



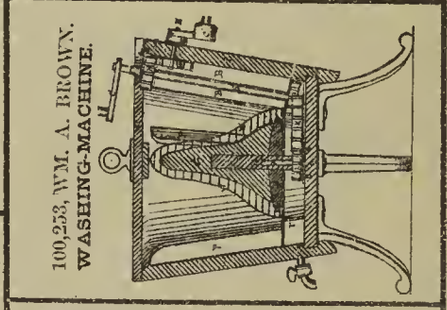
100,251, J. H. BARR.
WAGONS.



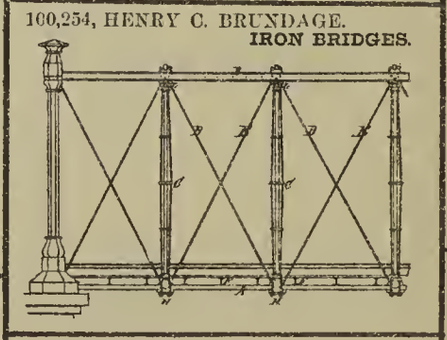
100,252, A. BLATCHLY. **ROCK-DRILL.**



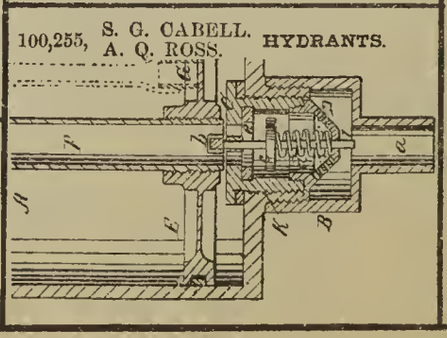
100,253, WM. A. BROWN.
WASHING-MACHINE.



100,254, HENRY C. BRUNDAGE.
IRON BRIDGES.

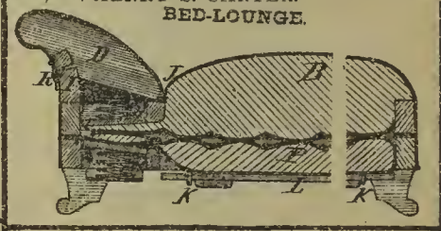


100,255, S. G. CABELL.
A. Q. ROSS.
HYDRANTS.

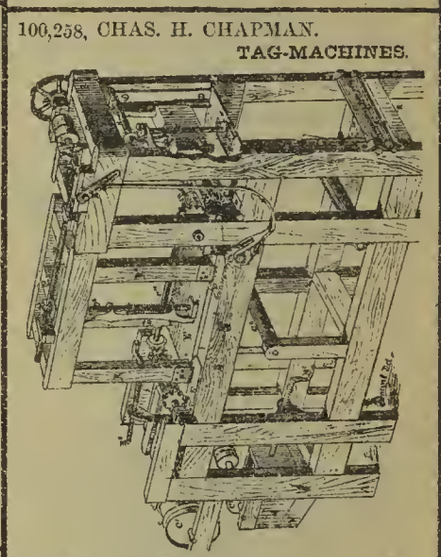


100,256, J. B. CAMPBELL.
SPRING-BED BOTTOM.

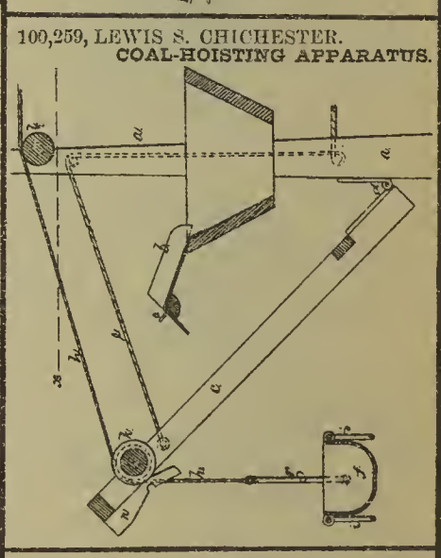
100,257, HENRY S. CARTER.
BED-LOUNGE.



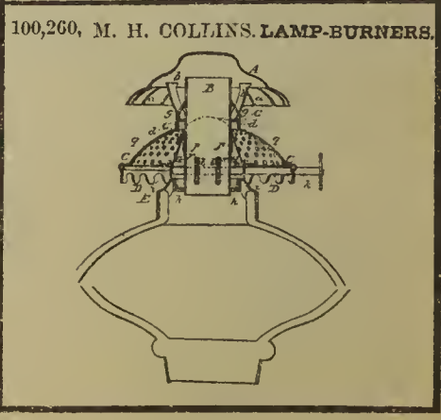
100,258, CHAS. H. CHAPMAN.
TAG-MACHINES.



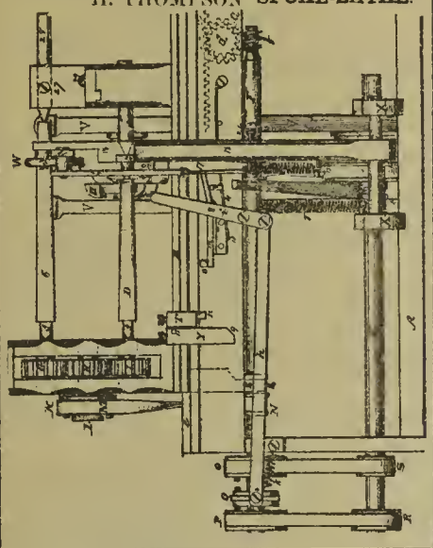
100,259, LEWIS S. CHICHESTER.
COAL-HOISTING APPARATUS.



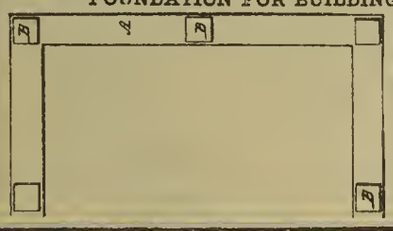
100,260, M. H. COLLINS. **LAMP-BURNERS.**



100,261, C. B. CONANT, H. THOMPSON SPOKE-LATHE.

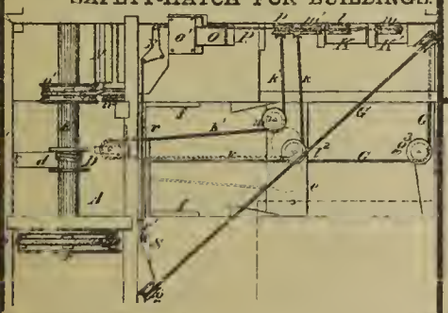


100,262 ALMOND F. COOPER. FOUNDATION FOR BUILDINGS.

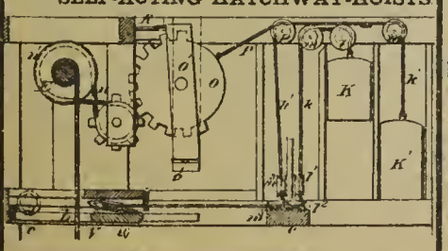


100,263, J. A. CRANDALL. ROCKING-HORSE.

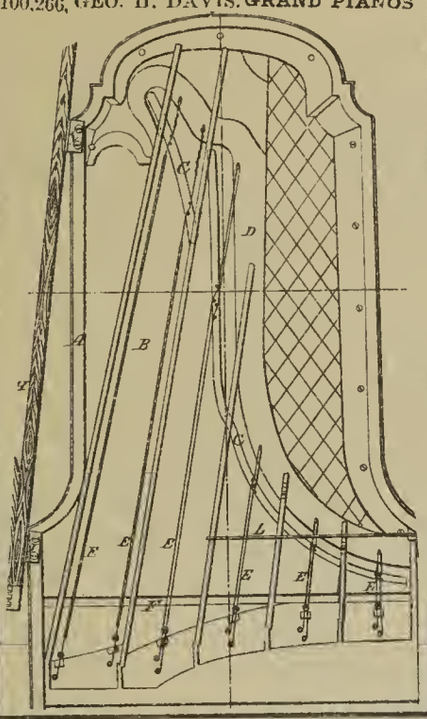
100,264, GEORGE N. CREAMER. SAFETY-HATCH FOR BUILDINGS.



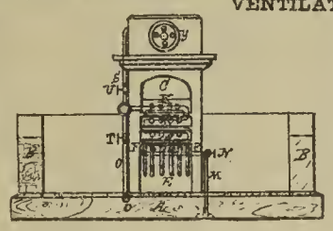
100,265, GEORGE N. CREAMER. SELF-ACTING HATCHWAY-HOISTS.



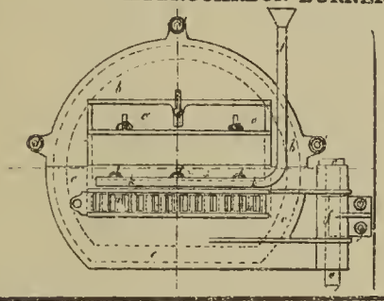
100,266, GEO. H. DAVIS. GRAND PIANOS.



100,267, EDWARD MORTIMER DEEY. VENTILATOR.

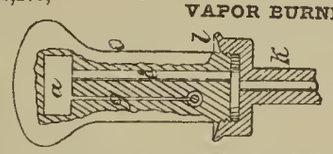


100,268, A. DE LANDSEE. HYDROCARBON BURNER.

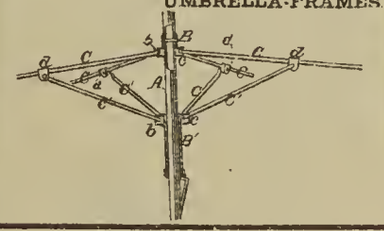


100,269, E. J. DE SMEDT. COMPOSITION FOR ROOFING, PAVING.

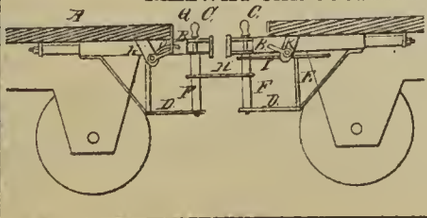
100,270, H. C. DE WITT. VAPOR BURNERS.



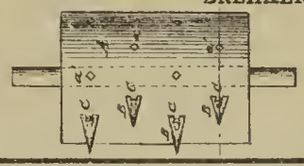
100,271, H. E. DONOR. UMBRELLA-FRAMES.



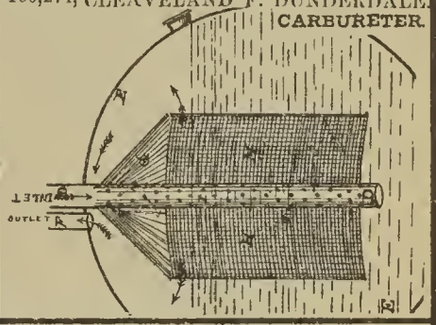
100,272, JOHN W. H. DOUBLER. RAILWAY-CAR COUPLING.



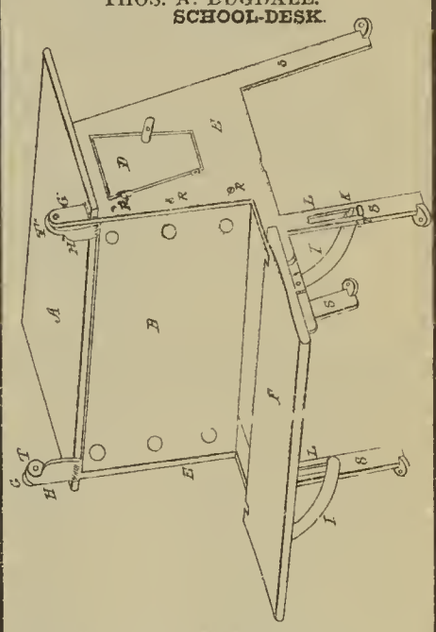
100,273, EDWIN DOUDEN. BREAKER-ROLLERS.



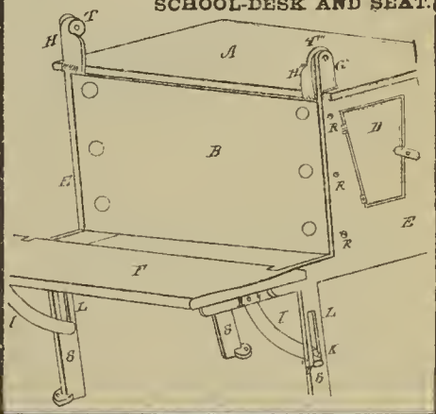
100,274, CLEAVELAND F. DUNDERDALE. CARBURETER.



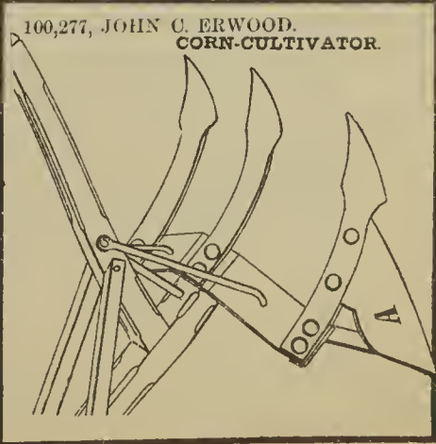
100,275, WILLIAM P. ERWIN, THOS. A. DUGDALE. SCHOOL-DESK.



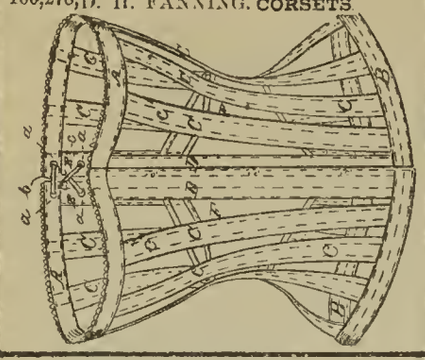
100,276, WILLIAM P. ERWIN, THOMAS A. DUGDALE. SCHOOL-DESK AND SEAT.



100,277, JOHN C. ERWOOD. CORN-CULTIVATOR.

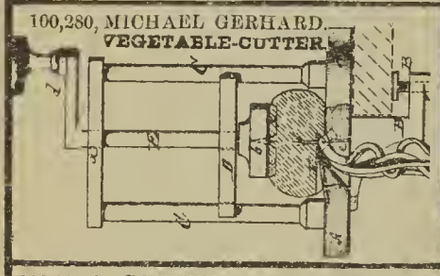


100,278, D. H. FANNING. CORSETS.

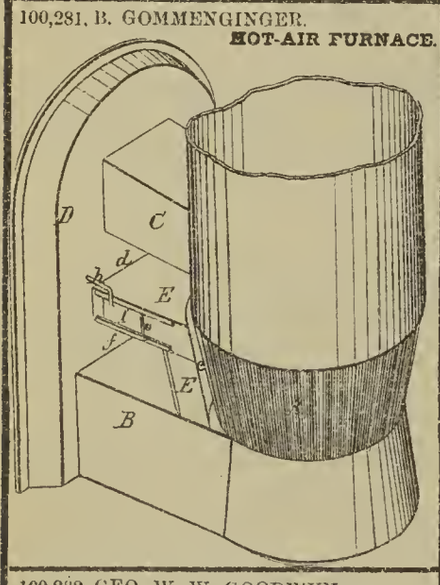


100,279, JOSEPH L. FOLSOM. OIL-CANS.

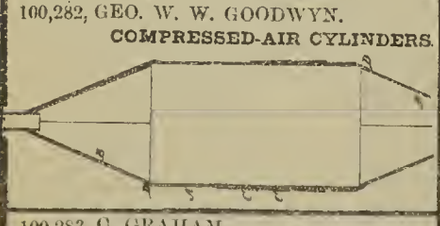
100,280, MICHAEL GERHARD. VEGETABLE-CUTTER.



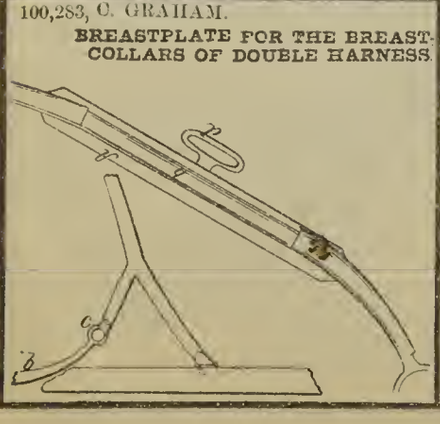
100,281, B. GOMMENGINGER. HOT-AIR FURNACE.



100,282, GEO. W. W. GOODWYN. COMPRESSED-AIR CYLINDERS.



100,283, C. GRAHAM. BREASTPLATE FOR THE BREAST-COLLARS OF DOUBLE HARNESS.



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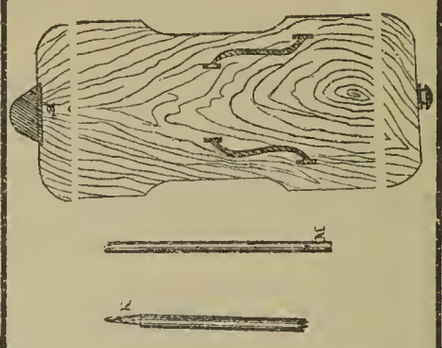
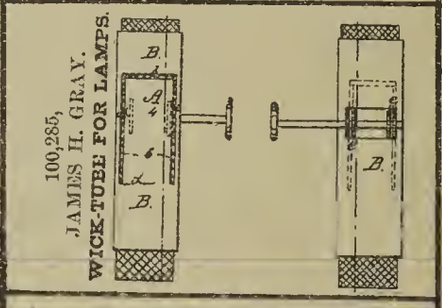
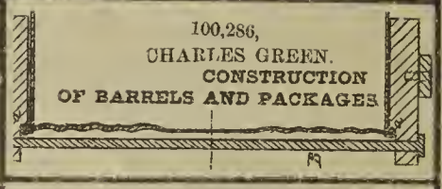


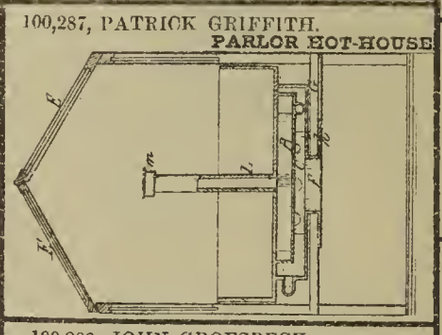
100,285, JAMES H. GRAY. WICK-TUBE FOR LAMPS.



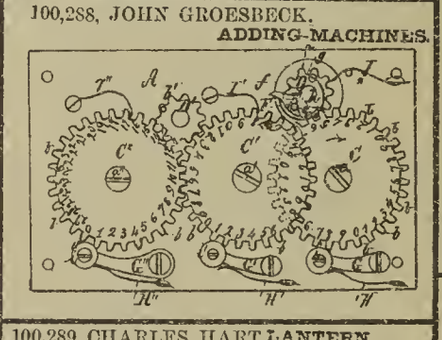
100,286, CHARLES GREEN. CONSTRUCTION OF BARRELS AND PACKAGES.



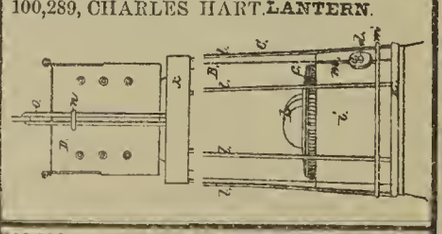
100,287, PATRICK GRIFFITH. PARLOR HOT-HOUSE.



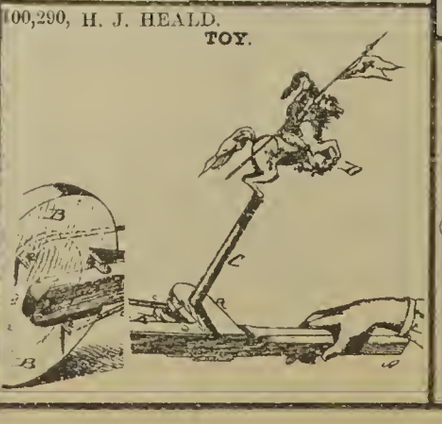
100,288, JOHN GROESBECK. ADDING-MACHINES.



100,289, CHARLES HART. LANTERN.

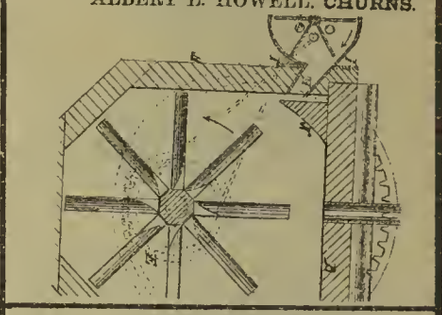


100,290, H. J. HEALD. TOY.



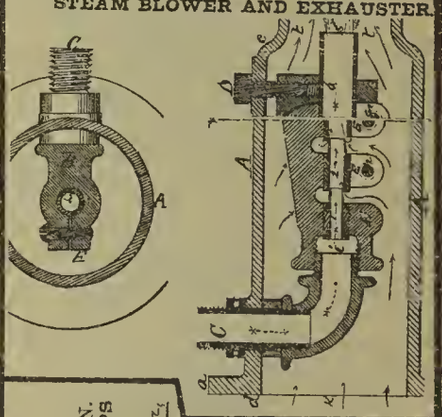
100,291. H. M. HEDDEN. FERROTYPE PLATE.

100,292, CHARLES PATERSON HOLMES, ALBERT L. HOWELL. CHURNS.



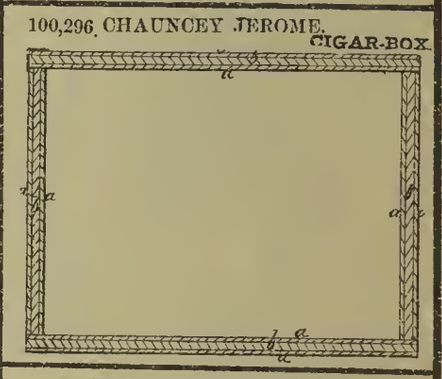
100,293, C. E. HOWARD. MANUFACTURE OF ARTIFICIAL FLOWERS.

100,294, JOHN HOWARTH. STEAM BLOWER AND EXHAUSTER.

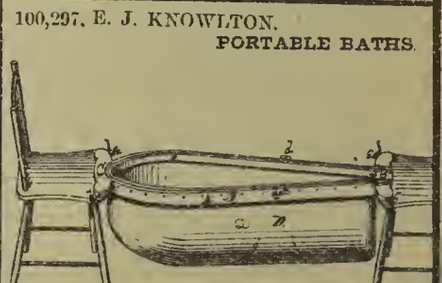


100,295, M. T. JACKSON. CARRIAGE-TOPS.

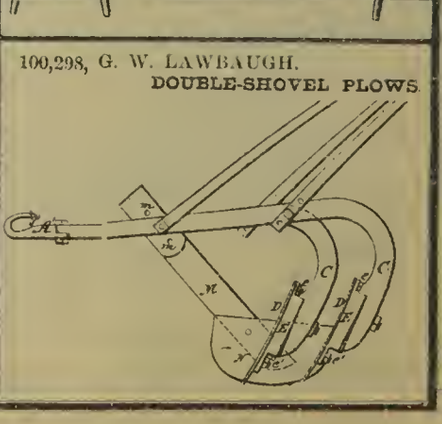
100,296, CHAUNCEY JEROME. CIGAR-BOX.



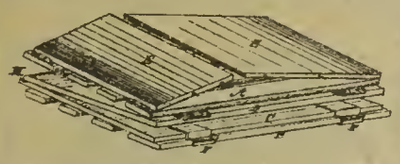
100,297, E. J. KNOWLTON. PORTABLE BATHS.



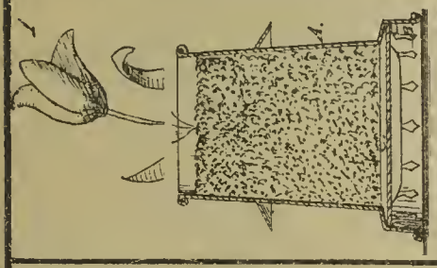
100,298, G. W. LAWBAUGH. DOUBLE-SHOVEL PLOWS.



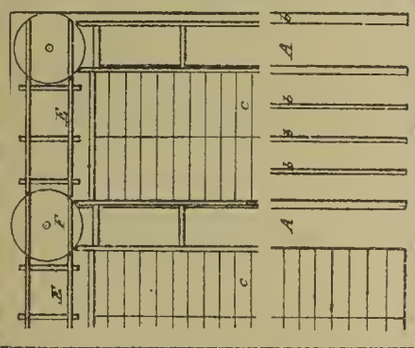
100,299, L. A. LINDSEY. FOLDING-CRATES.



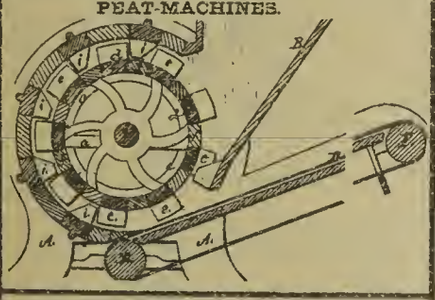
100,300, M. LUDLUM. FLOWER-POTS.



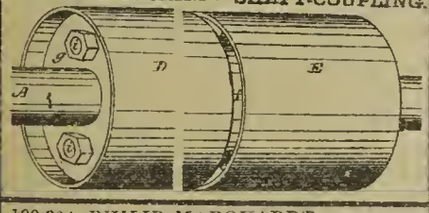
100,301, JAMES B. LYONS. FLOORS FOR DRYING PEAT.



100,302, JAMES B. LYONS. PEAT-MACHINES.

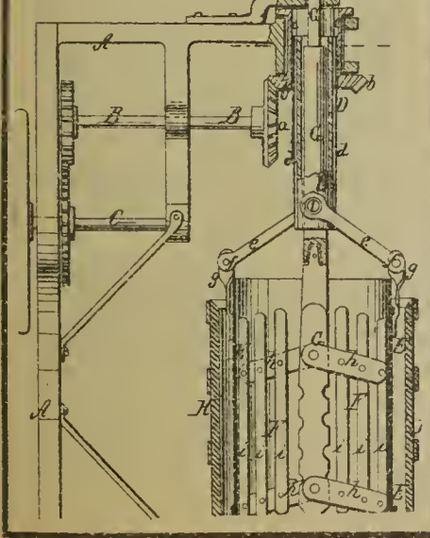


100,303, H. F. MANN. SHAFT-COUPLING.

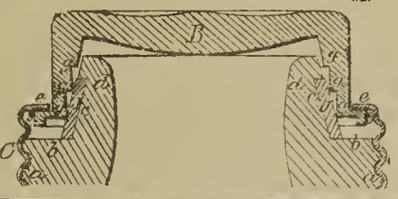


100,304, PHILIP MARQUARDT. MANUFACTURE OF POTTERY.

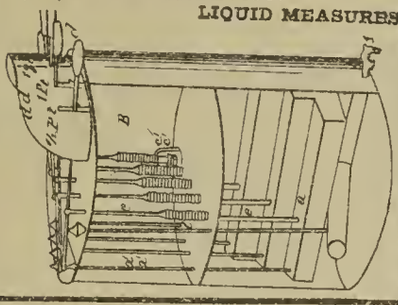
100,305, BENJ. GREEN MARTIN. ICE-CREAM FREEZER.



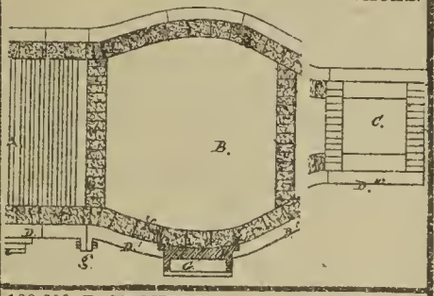
100,306, JOHN L. MASON. FRUIT-JARS.



100,307, MARTIN McDEVITT. LIQUID MEASURES.

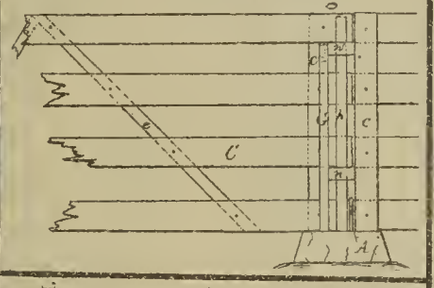


100,308, SAMUEL McLAUGHLIN. PUDDLING-FURNACES.

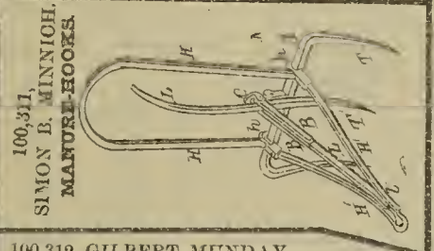


100,309, E. McMILLIN. PURIFICATION OF COAL GAS.

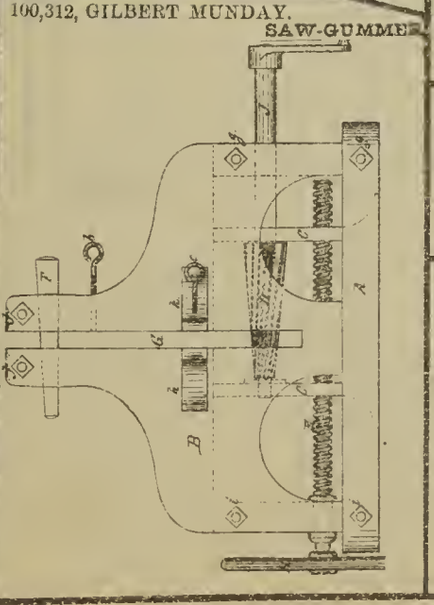
100,310, GEO. S. MILLS. FENCE.



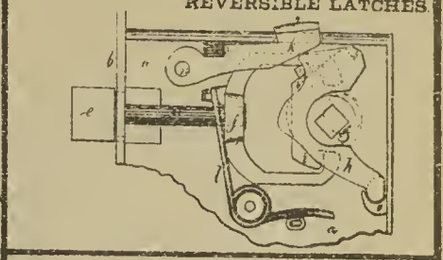
100,311, SIMON B. MINNICH. MANURE-HOOKS.



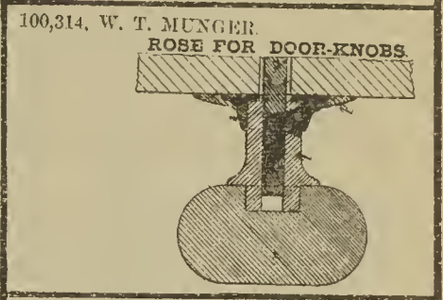
100,312, GILBERT MUNDAY. SAW-GUMMER.



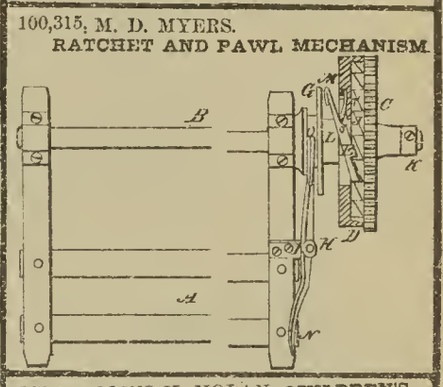
100,313, W. T. MUNGER. REVERSIBLE LATCHES.



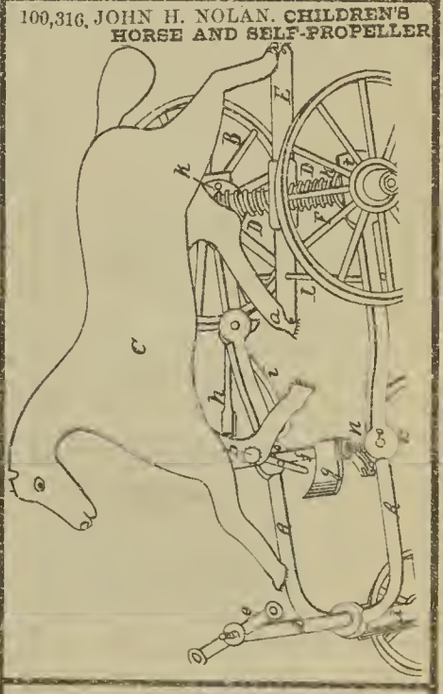
100,314, W. T. MUNGER. ROSE FOR DOOR-KNOBS.



100,315, M. D. MYERS. RATCHET AND PAWL MECHANISM.

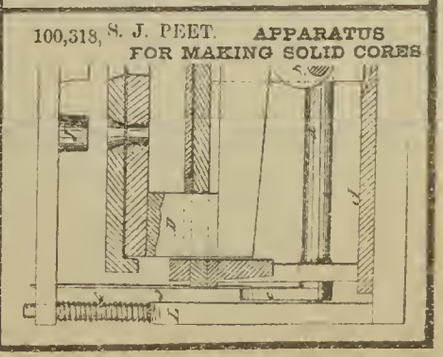


100,316, JOHN H. NOLAN. CHILDREN'S HORSE AND SELF-PROPELLER.

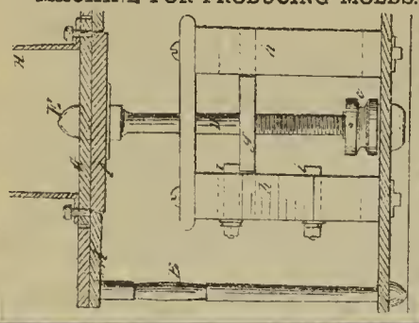


100,317, ELIAS A. PAINE. SHUTTLE FOR LOOMS.

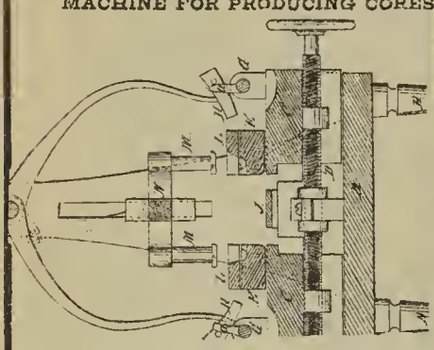
100,318, S. J. PEET. APPARATUS FOR MAKING SOLID CORES.



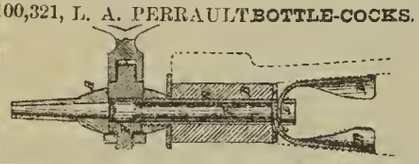
100,319, S. J. PEET.
MACHINE FOR PRODUCING MOLDS.



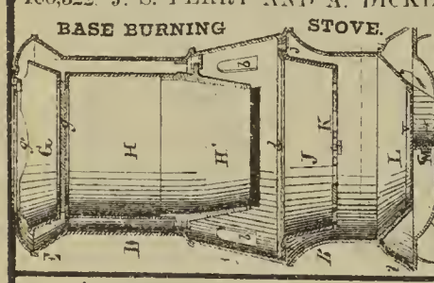
100,320, S. J. PEET.
MACHINE FOR PRODUCING CORES.



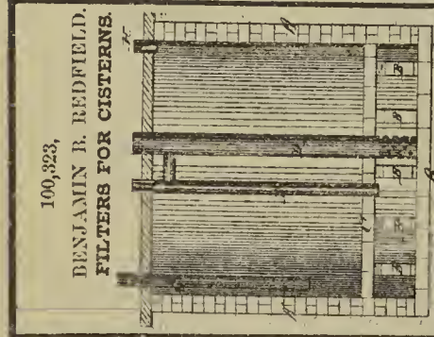
100,321, L. A. PERRAULT. BOTTLE-COCKS.



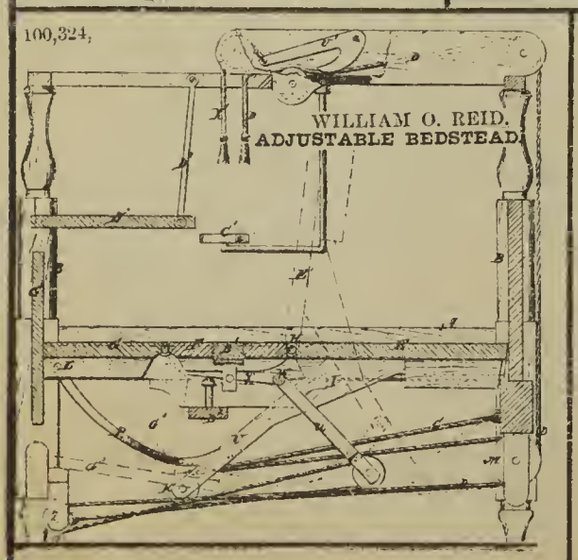
100,322. J. S. PERRY AND A. DICKEY
BASE BURNING STOVE.



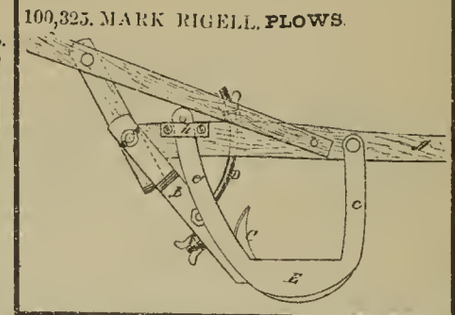
100,323, BENJAMIN B. BEDFIELD.
FILTERS FOR CISTERNS.



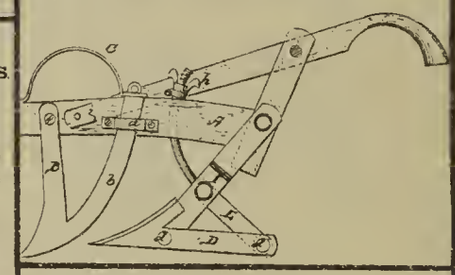
100,324, WILLIAM O. REID.
ADJUSTABLE BEDSTEAD.



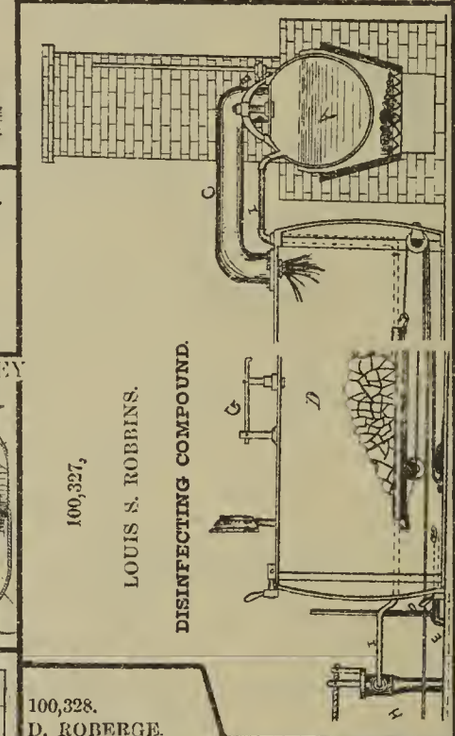
100,325. MARK RIGELL. PLOWS.



100,326, MARK RIGELL. PLOWS.



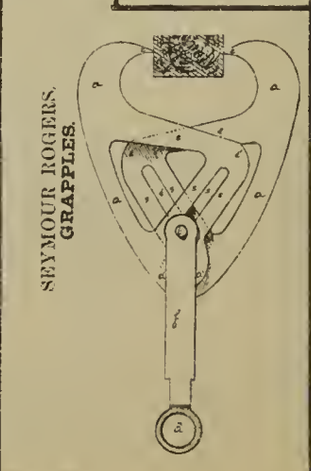
100,327, LOUIS S. ROBBINS.
DISINFECTING COMPOUND.



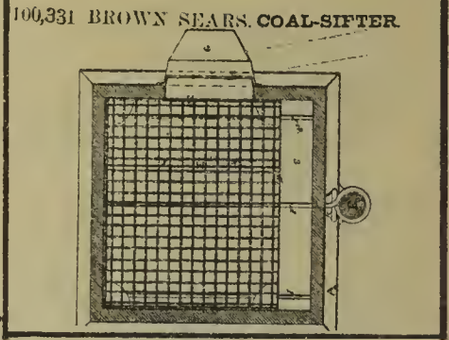
100,328.
D. ROBERGE.
HORSESHOES.

100,329.
D. ROBERGE.
HORSESHOES.

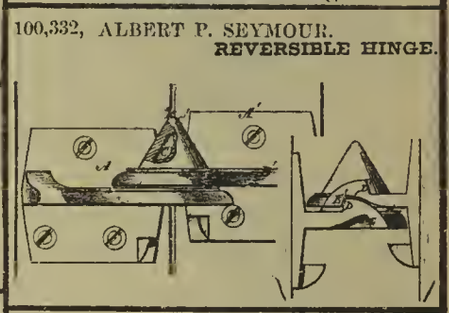
100,330,
SEYMOUR ROGERS.
GRAPPLES.



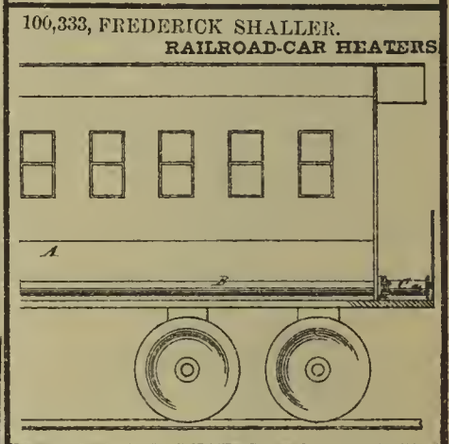
100,331 BROWN SEARS. COAL-SIFTER.



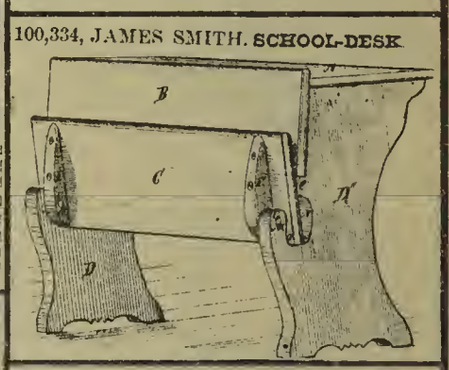
100,332, ALBERT P. SEYMOUR.
REVERSIBLE HINGE.



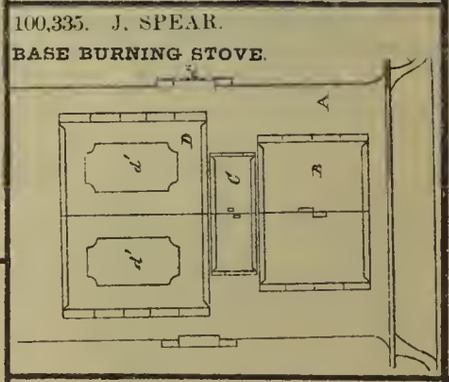
100,333, FREDERICK SHALLER.
RAILROAD-CAR HEATERS.



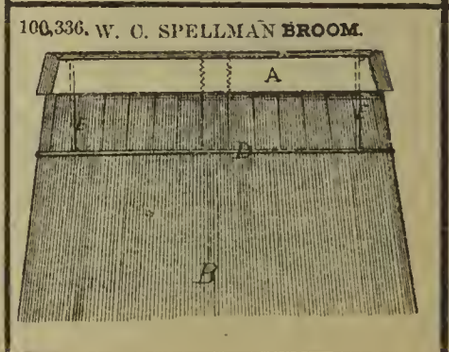
100,334, JAMES SMITH. SCHOOL-DESK.



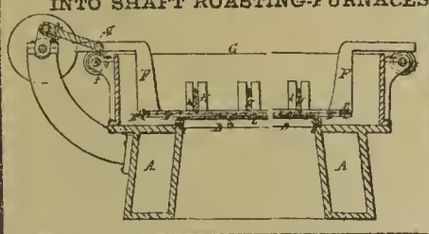
100,335. J. SPEAR.
BASE BURNING STOVE.



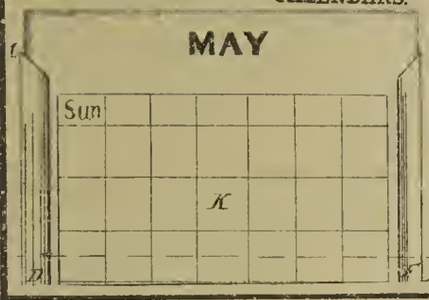
100,336. W. C. SPELLMAN. BROOM.



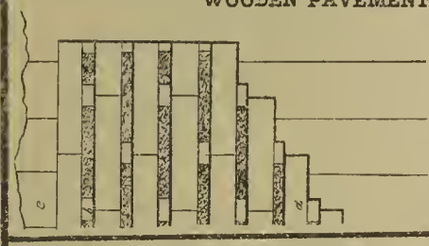
100,337, CHARLES STETEFELDT.
MACHINE FOR FEEDING ORES INTO SHAFT ROASTING-FURNACES



100,338, JOSHUA F. TANNATT.
CALENDARS.

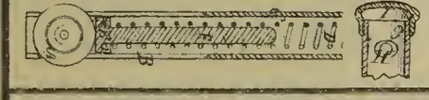


100,339, JAMES K. THOMPSON.
WOODEN PAVEMENT.

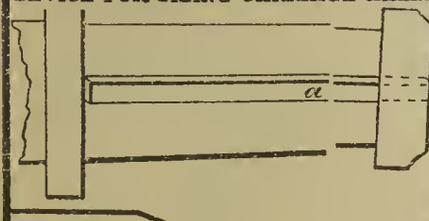


100,340, E. PALMER TIFFANY. PENS

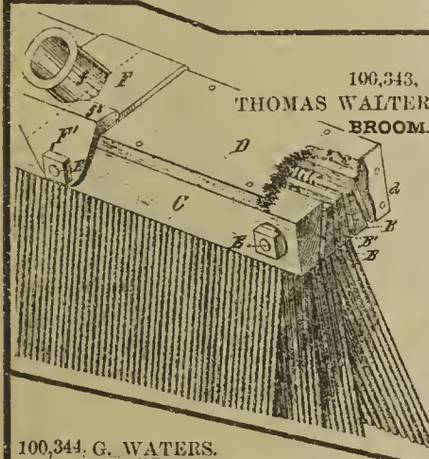
100,341, JAMES TURNBULL.
WILLIAM TURNBULL.
CURTAIN-FIXTURE



100,342, JAMES VANDERPOOL.
DEVICE FOR OILING CARRIAGE AXLES.



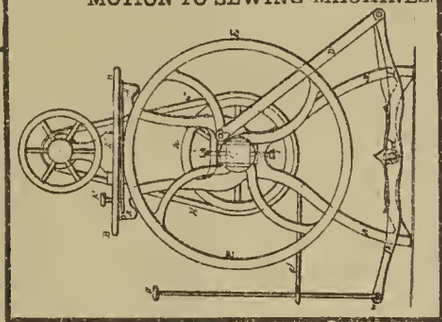
100,343, THOMAS WALTER.
BROOM.



100,344, G. WATERS.
FEED-WATER FILTERS.

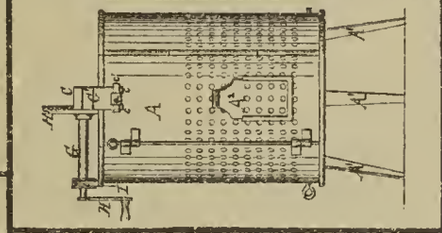
100,345, WILLIAM WELLINGTON.
CLOTHES-PIN.

100,346, WILLIAM WELLINGTON.
APPARATUS FOR TRANSMITTING MOTION TO SEWING-MACHINES.

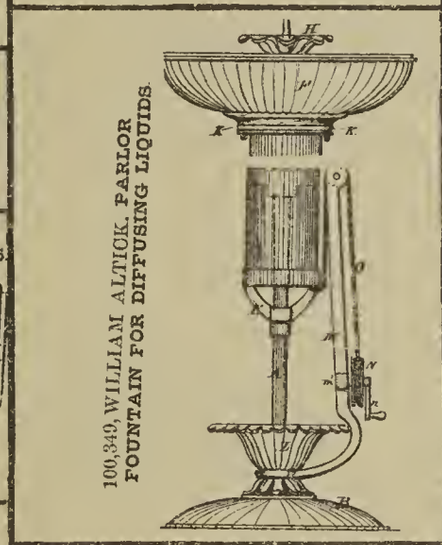


100,347, FR. WICKE.
JULIUS BRÖNNER.
THEODOR PETERSEN.
DR. G. ZEHFUSS.
FERTILIZE FROM EXCREMENTRS.

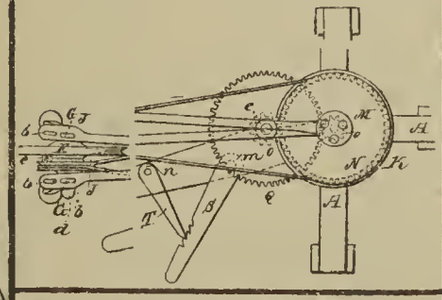
100,348, W. H. WILLIAMS.
MACHINE FOR PARING FRUIT.



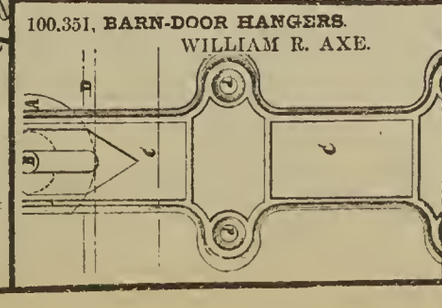
100,349, WILLIAM ALTICK. PARLOR FOUNTAIN FOR DIFFUSING LIQUIDS.



100,350, JOHN E. ATWOOD.
HORSE-POWERS.

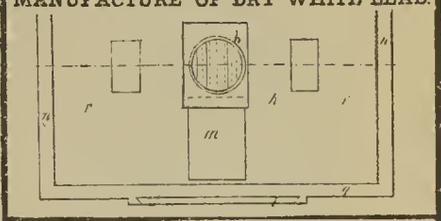


100,351, BARN-DOOR HANGERS.
WILLIAM R. AXE.



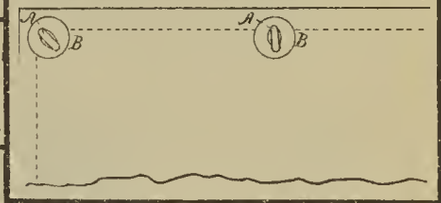
100,352, HENRY BARTHOLOMAY.
METHOD OF PRESERVING THE AROMATIC PRINCIPLE OF HOPS.

100,353, EAYRE O. BARTLETT.
MANUFACTURE OF DRY WHITE LEAD.

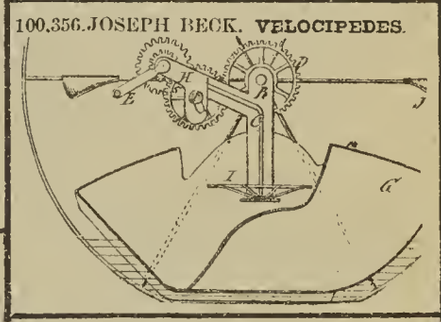


100,354. C. A. BAUMANN.
COVERING FOR STEAM BOILERS.

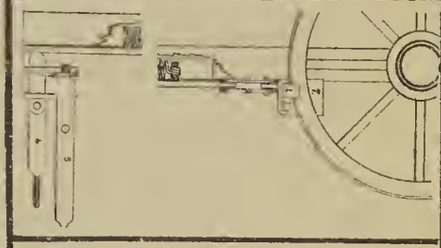
100,355, FREDRICK BAUMGARTNER.
FASTENING FOR CARRIAGE-CURTAINS.



100,356, JOSEPH BECK. VELOCIPEDES.

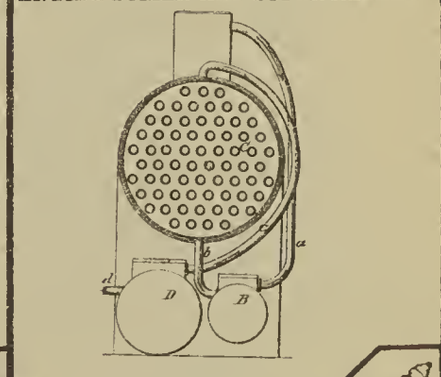


100,357, JOSEPH G. BICKNELL.
BRAKES FOR CARRIAGES AND WAGONS.

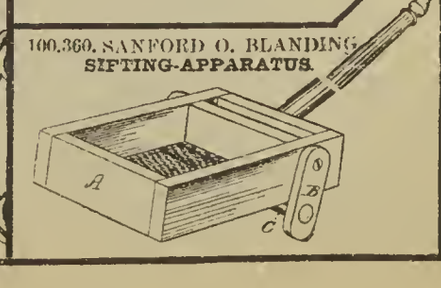


100,358, GEORGE his × mark BIRKS.
COMPOUND FOR PREVENTING INCRUSTATION IN STEAM-BOILERS.

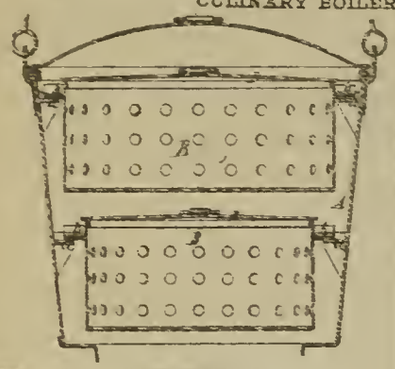
100,359, F. B. BLANCHARD. COMBINED ENGINE-BOILER AND SUPER-HEATER.



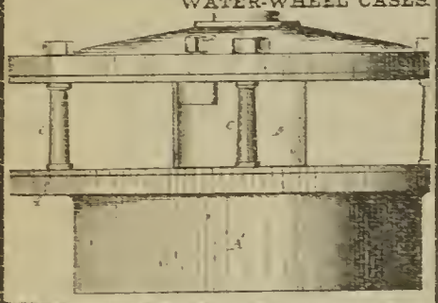
100,360, SANFORD O. BLANDING.
SIFTING-APPARATUS.



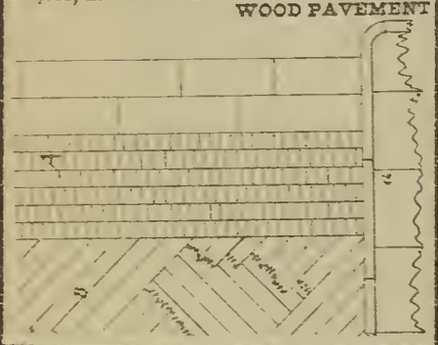
100,361. GEORGE W. BLISS.
CULINARY BOILER.



100,362. JOHN W. BOOKWALTER.
WATER-WHEEL CASES.



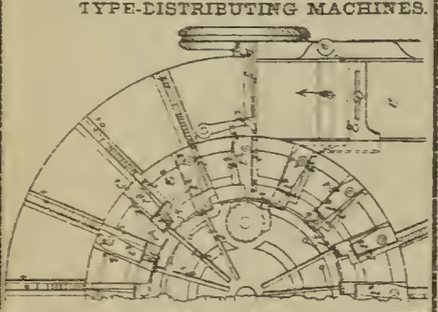
100,363, L. H. BOOLF.
WOOD PAVEMENT



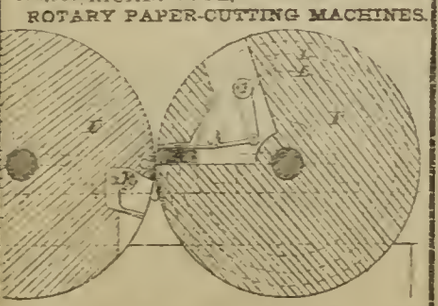
100,364, JOHN C. BRADY.
JAMES H. BRADY.
SNAP-HOOK AND BUCKLE.

100,365. THOMAS BRISTOW.
MANUFACTURE OF MADDER DYES.

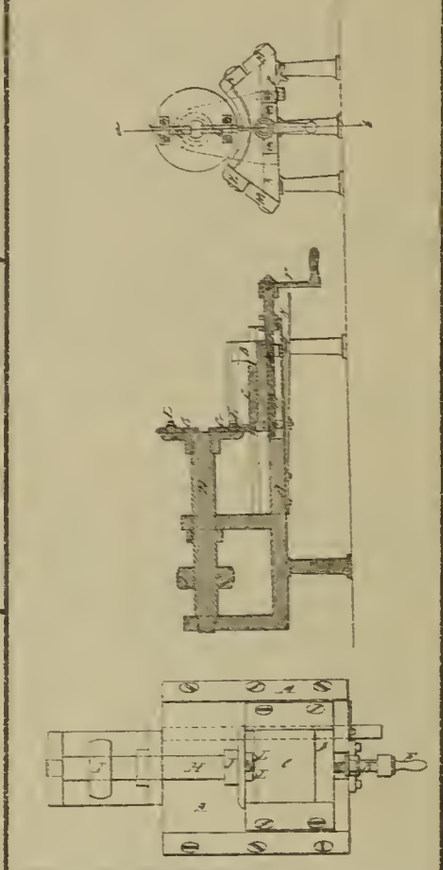
100,366. OBREN LEE BROWN.
TYPE-DISTRIBUTING MACHINES.



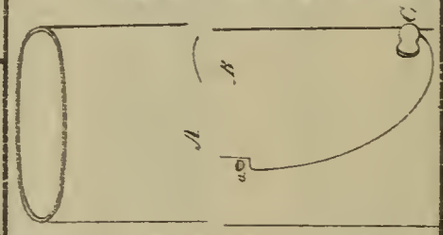
100,367. RICHD. VOSE.
ROTARY PAPER-CUTTING MACHINES.



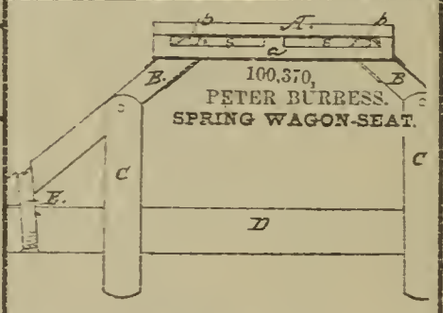
100,368. RICHD. VOSE.
MACHINE FOR PLANING AND SQUARING THE ENDS OF SEGMENTAL STEREOTYPE PLATES.



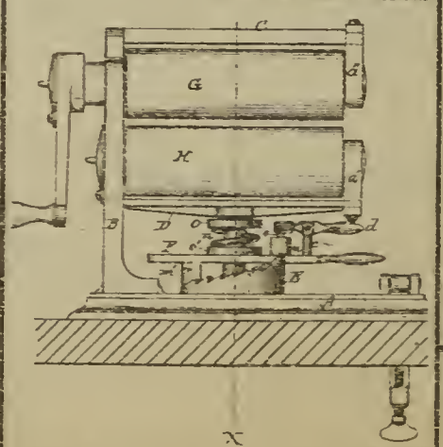
100,369. A. R. BURDICK. STOVE-PIPE DAMPERS AND VENTILATORS.



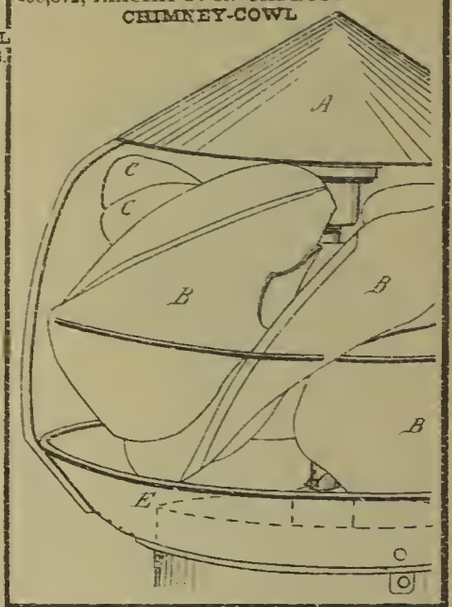
100,370,
PETER BURRESS.
SPRING WAGON-SEAT.



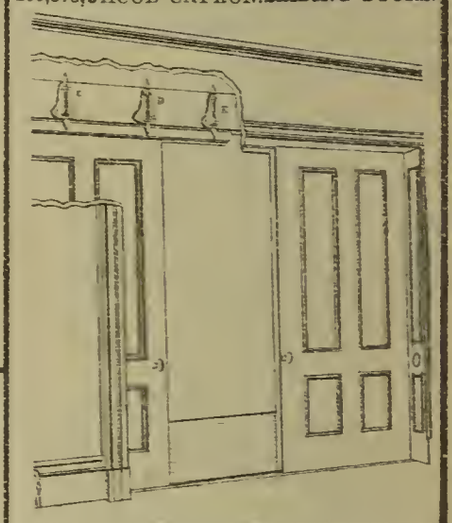
100,371, S. G. CABELL.
FLUTING-MACHINES.



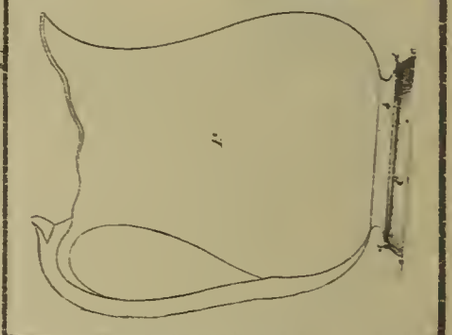
100,372, ELISHA P. H. CAPRON.
CHIMNEY-COWL



100,373, JACOB CAPRON. SLIDING DOORS.

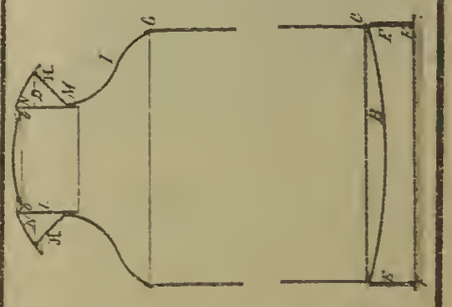


100,374. F. B. CARLETON. SHIELD FOR PITCHERS.



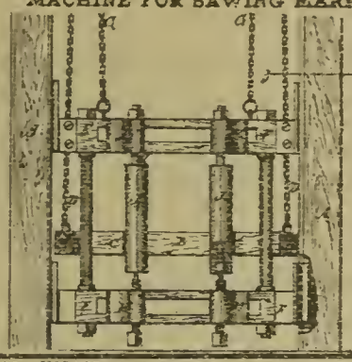
100,375, LEWSON E. CHASE
CONFECTIONERY.

100,376, JOHN COCHRAN. MILK-CANS.

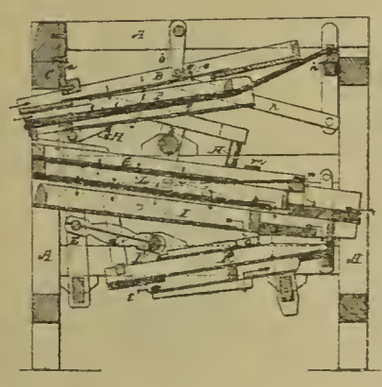


100,377, JOHN COCHRANE. CARPET.

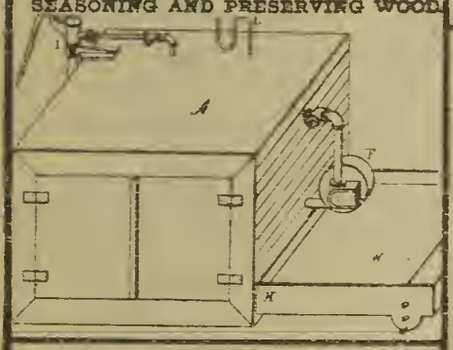
100,378, R. S. CRAIG.
A. H. WOODWARD.
MACHINE FOR SAWING MARBLE.



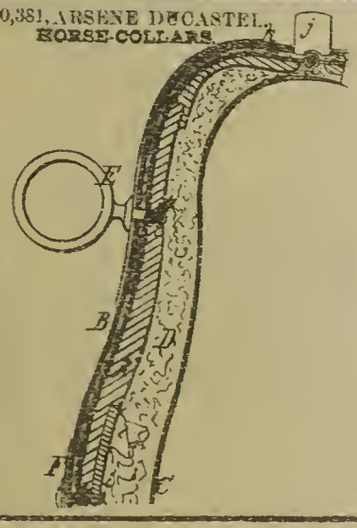
100,379, EVAN DAVIS.
GRAIN-SEPARATORS.



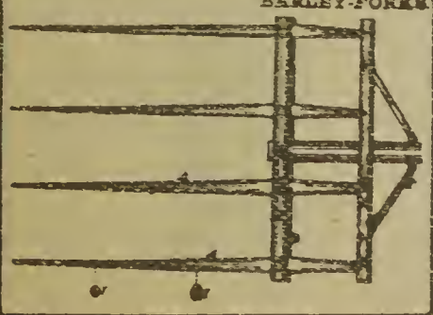
100,380, J. C. DAY.
SEASONING AND PRESERVING WOOD.



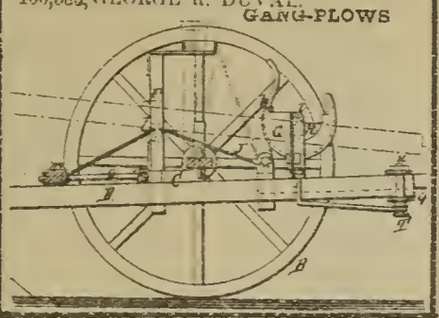
100,381, ARSENE DUCASTEL.
HORSE-COLLARS.



100,382, FREDRICK DUNN.
BARLEY-FORKS.



100,383, GEORGE R. DUVAL.
GANG-PLOWS.



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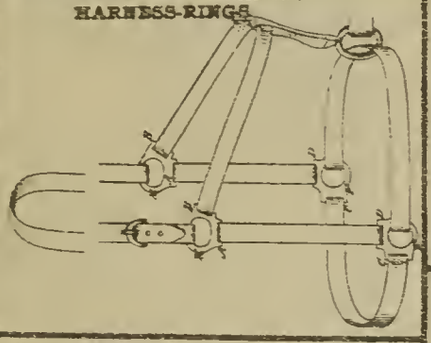
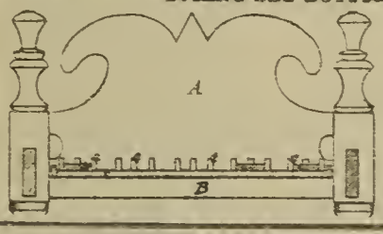
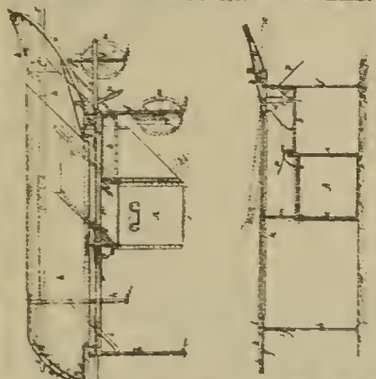
HARNESS-RINGS.



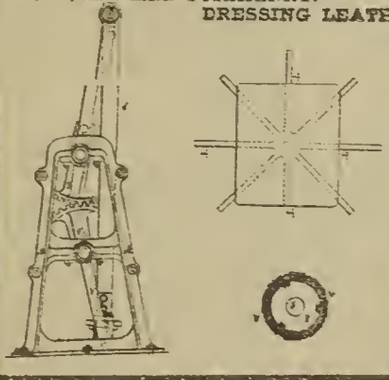
100,385, B. F. ELLS.
SPRING-BED BOTTOM.



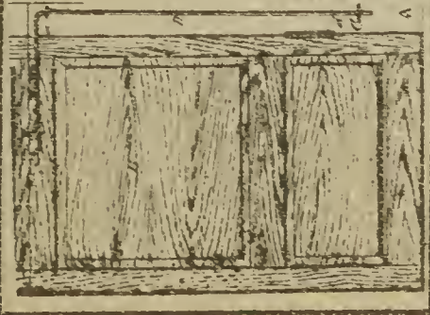
100,386, C. J. EVERICKN. BEDSTEAD.



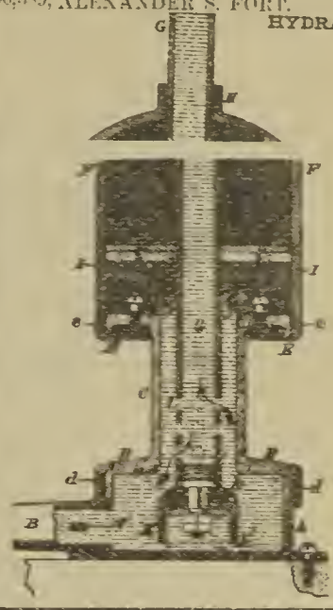
100,387, EDWARD FITZHENRY.
DRESSING LEATHER.



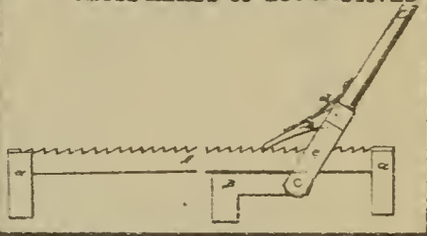
100,388, B. G. FITZHUGH.
DOOR-SPRINGS.



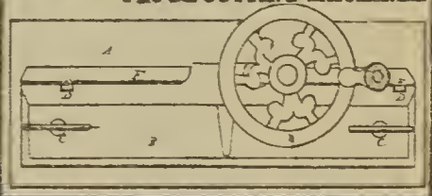
100,389, ALEXANDER S. FORT.
HYDRANTS.



100,390, JOHN S. FUNK.
JACKS FOR MOVING THE CROSS-HEADS OF LOCOMOTIVES.

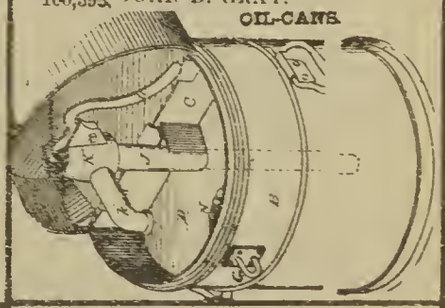


100,391, H. A. GAGE.
PAPER-CUTTING MACHINES.

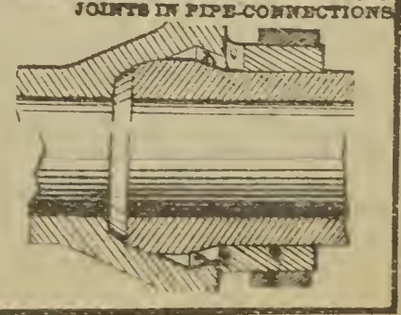


100,392, CHARLES O. GARDINER.
SICKLE-BARS.

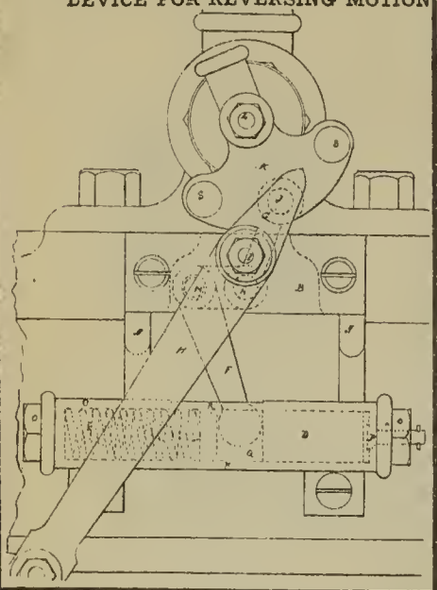
100,393, JOHN D. GRAY.
OIL-CANS.



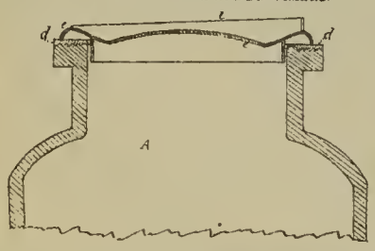
100,394, EDWARD GWYN.
CLAMPED MOLDS FOR MAKING LEAD JOINTS IN PIPE-CONNECTIONS.



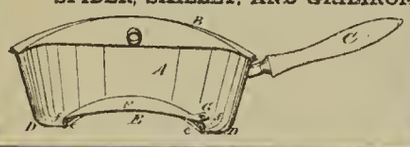
100,395, CHARLES F. HADLEY.
DEVICE FOR REVERSING MOTION



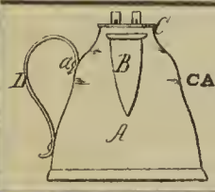
100,396, JOEL HAINES.
FRUIT-JARS.



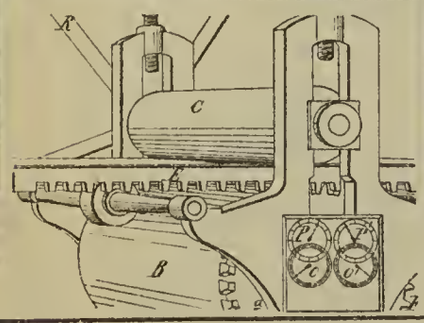
100,397, THOMAS F. HAMILTON.
SPIDER, SKILLET, AND GRIDIRON.



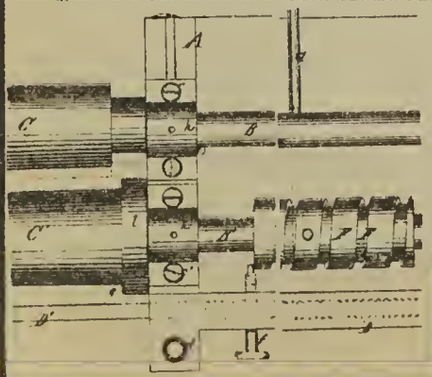
100,398,
T. F. HAMMER.
CAST-METAL LAMPS.



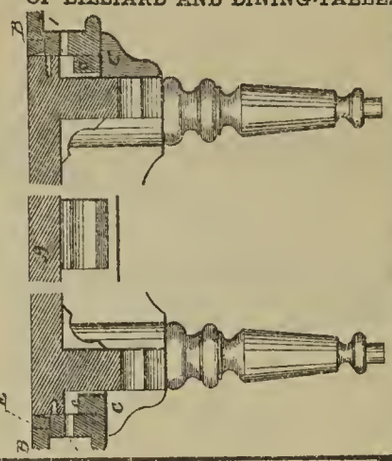
100,399, JOS. L. HARLEY.
PLATE-PRINTING REGISTER



100,400, ALBERT HEBBARD.
MACHINE FOR MAKING CAR-SPRINGS.

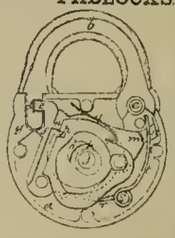


100,401, FRED. E. HELD. COMBINATION OF BILLIARD AND DINING-TABLES.

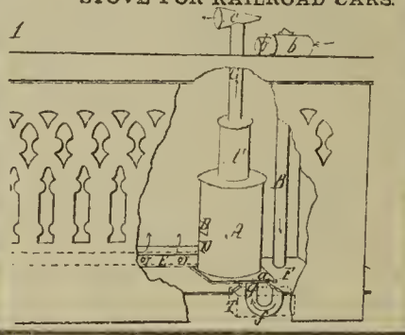


100,402, LOUIS HILLEBRAND.
PADLOCKS.

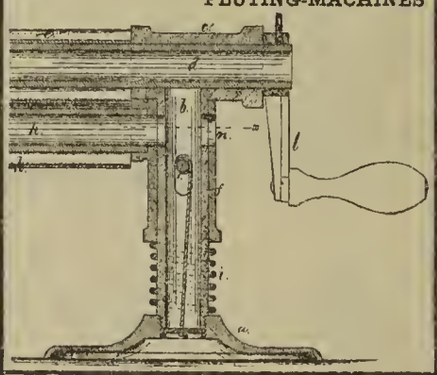
100,403,
LOUIS HILLEBRAND.
PADLOCKS.



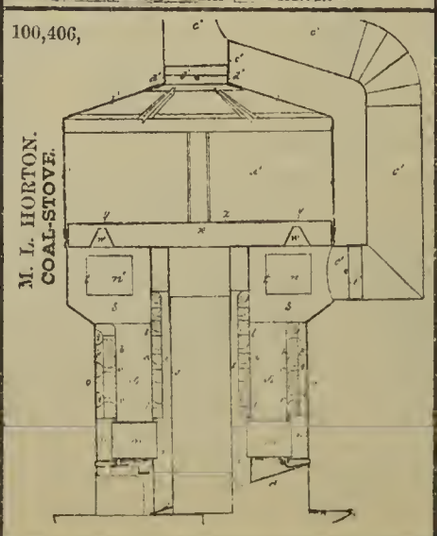
100,404, M. T. HITCHCOCK.
STOVE FOR RAILROAD CARS.



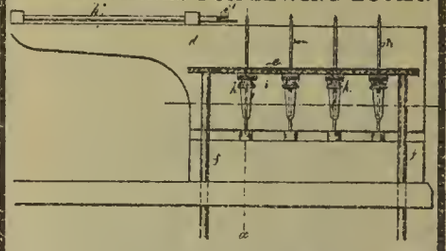
100,405, CHAS. E. L. HOLMES.
FLUTING-MACHINES



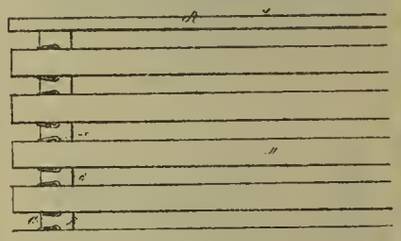
100,406,
M. L. HORTON.
COAL-STOVE.



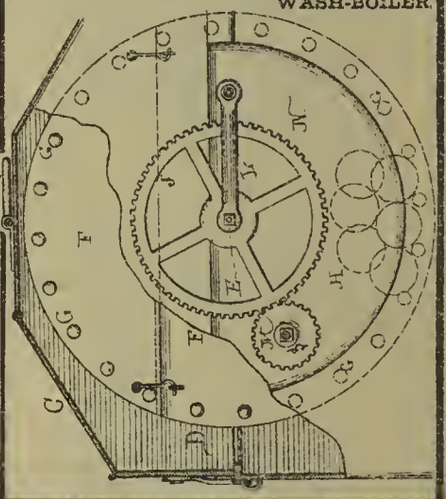
100,407, F. W. HOWE.
MACHINES FOR SEWING BOOKS.



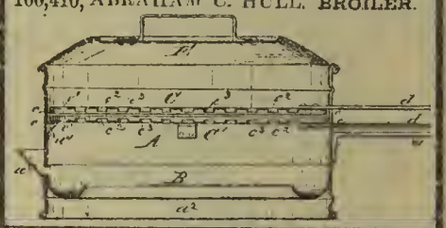
100,408, TYLER HOWE.
SPRING-BED BOTTOM.



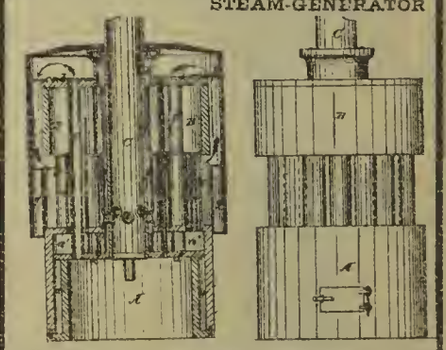
100,409, THOMAS G. HUGHES.
WASH-BOILER.



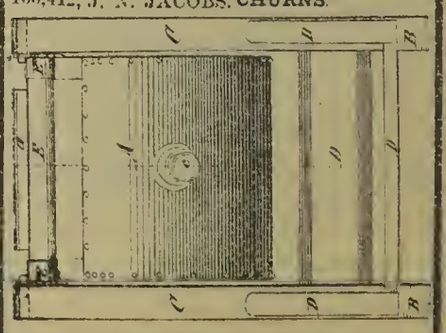
100,410, ABRAHAM C. HULL. BROILER.



100,411, WM. H. IVENS.
STEAM-GENERATOR

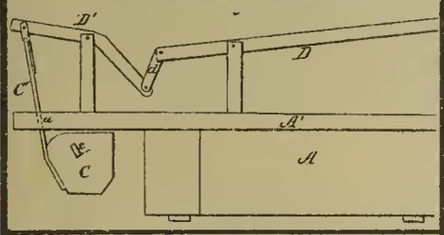


100,412, J. N. JACOBS. CHURNS.

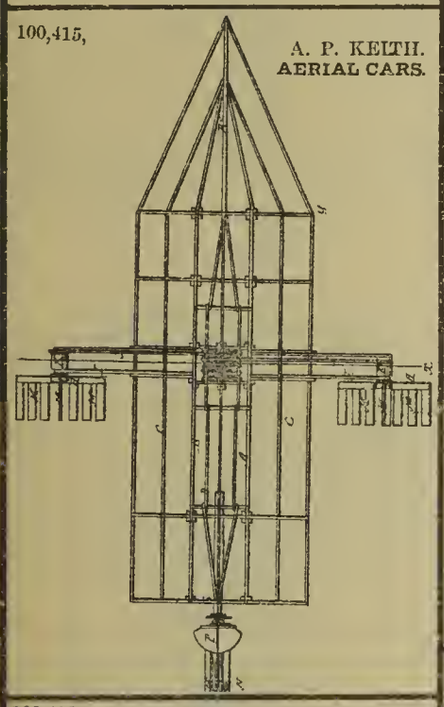


100,413, J. D. JAMES, Jr.
TIN-WORKERS' TONGS.

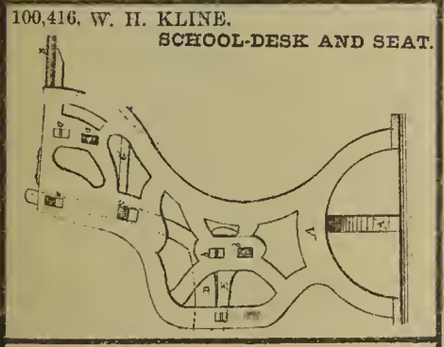
100,414, J. D. JAMES, Jr. MACHINES FOR SEAMING METAL ROOFS.



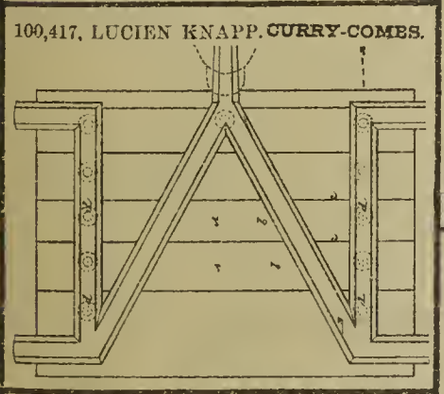
100,415, A. P. KEITH.
AERIAL CARS.



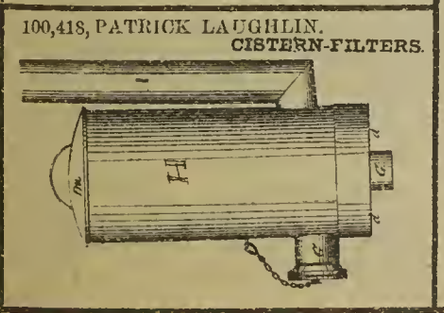
100,416, W. H. KLINE.
SCHOOL-DESK AND SEAT.



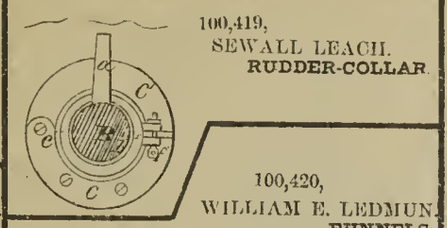
100,417, LUCIEN KNAPP. CURRY-COMBS.



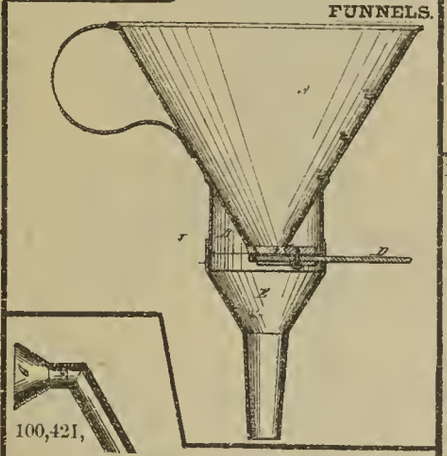
100,418, PATRICK LAUGHLIN.
CISTERN-FILTERS.



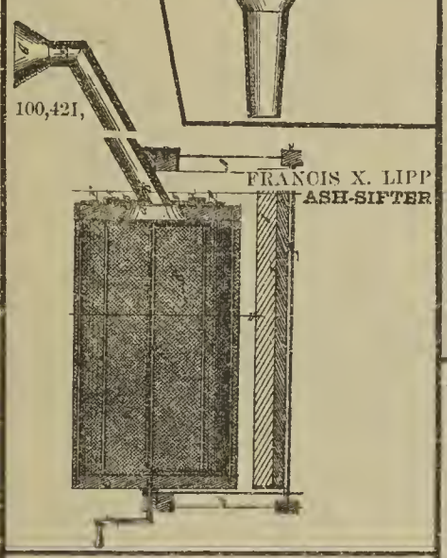
100,419, SEWALL LEACH.
RUDDER-COLLAR.



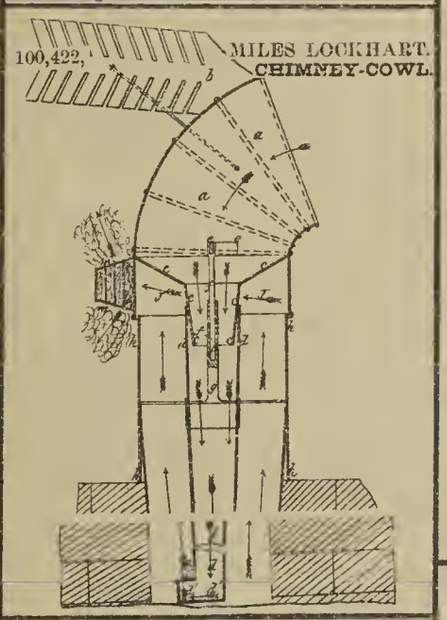
100,420, WILLIAM E. LEDMUN.
FUNNELS.



100,421, FRANCIS X. LIPP
ASH-SIFTER.

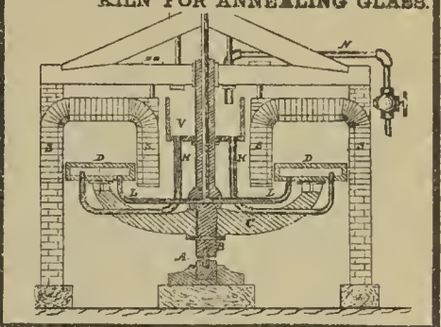


100,422, MILES LOCKHART.
CHIMNEY-COWL.

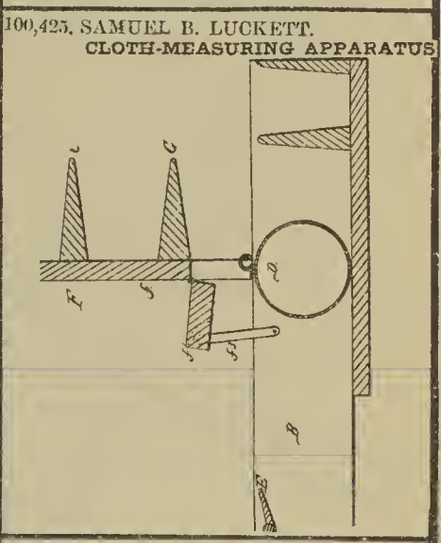


100,423, G. W. C. LOVELL.
SMOOTHING-IRON.

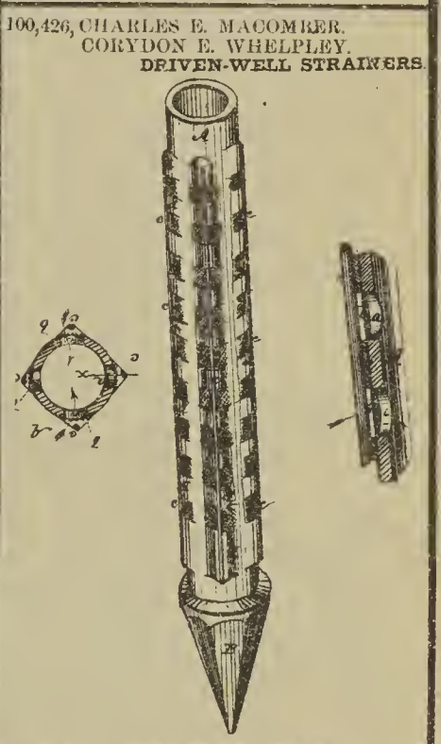
100,424, THOMAS LOWRY.
KILN FOR ANNEALING GLASS.



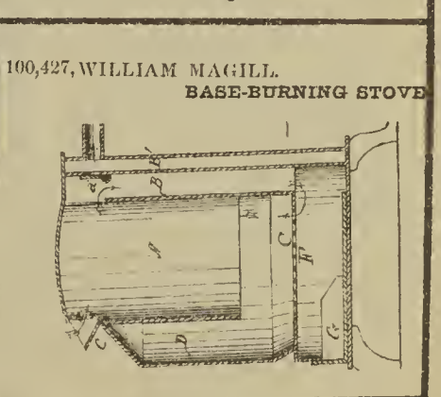
100,425, SAMUEL B. LUCKETT.
CLOTH-MEASURING APPARATUS.



100,426, CHARLES E. MACOMBER.
CORYDON E. WHELPLEY.
DRIVEN-WELL STRAINERS.

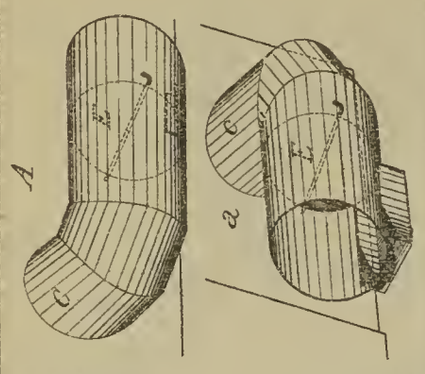


100,427, WILLIAM MAGILL.
BASE-BURNING STOVE.

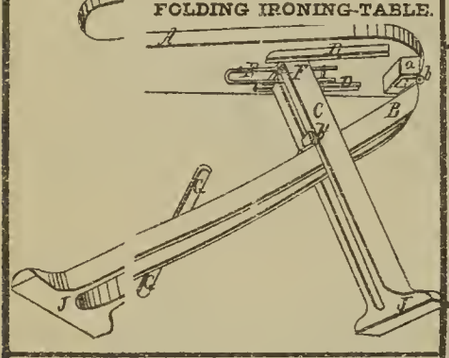


100,428, ARTHUR MAGINNIS.
WM. McCORMICK.
COLLECTING WASTE SPIRITS FROM BREWERIES AND BARS.

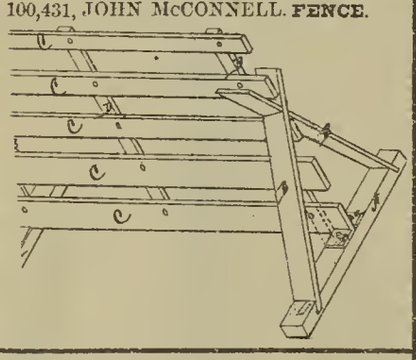
100,429. S. C. MAINE.
VENTILATOR FOR WINDOWS.



100,430, JAMES H. MALLORY.
FOLDING IRONING-TABLE.



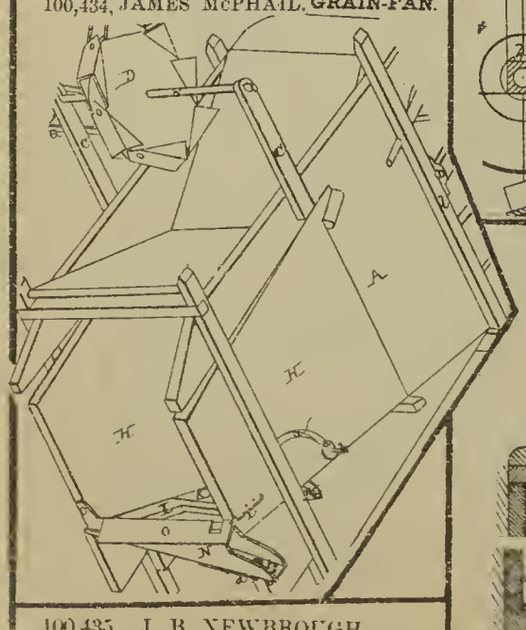
100,431, JOHN McCONNELL. FENCE.



100,432, GEORGE McKENZIE.
MANUFACTURE OF ILLUMINATING GAS FROM COAL AND OTHER MATERIALS.

100,433, GEORGE McKENZIE.
MANUFACTURE OF ILLUMINATING-GAS

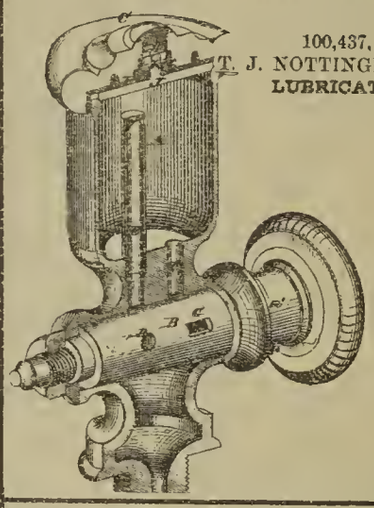
100,434, JAMES McPHAIL. GRAIN-FAN.



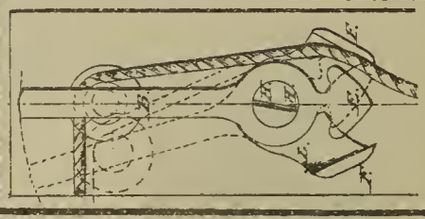
100,435. J. B. NEWBROUGH.
MANUFACTURE OF HARD RUBBER

100,436, JAMES H. NEWTON.
MANUFACTURE OF COMBINED CLOTH AND PAPER FABRIC.

100,437,
T. J. NOTTINGHAM.
LUBRICATORS.

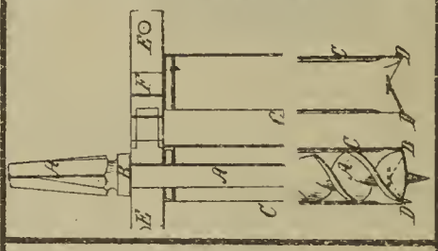


100,438, HARRISON OGBORN.
CLOTHES-LINE FASTENER

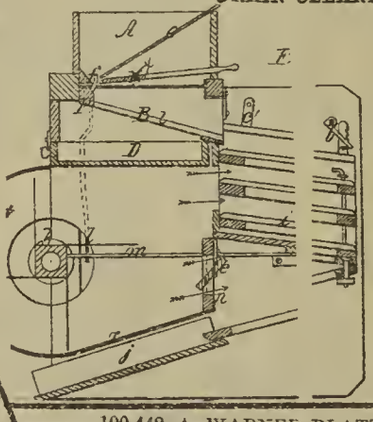


100,439, JOHN S. PEMBERTON. MEDICAL COMPOUND FROM GLOBE FLOWER.

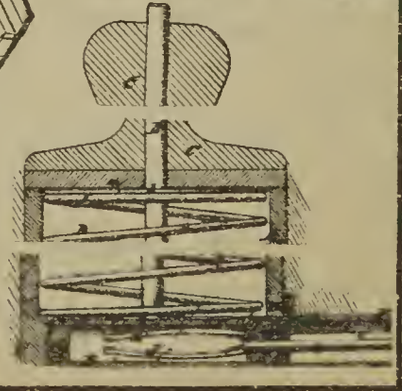
100,440, ALFRED T. PERRINE
AUGER FOR BORING SQUARE HOLES.



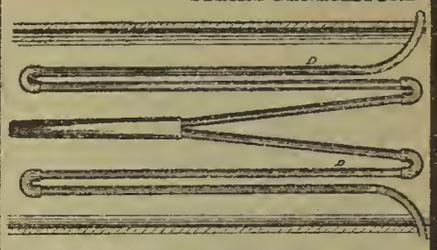
100,441, CHAUNCEY PERRY,
JAMES E. WHEAT.
GRAIN CLEANERS



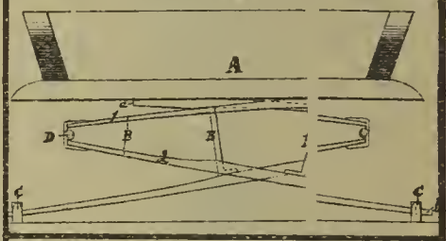
100,442, A. WARNER PLATT.
CIRCUIT-CLOSER FOR ELECTRO-MAGNETIC RAILROAD SIGNALS



100,443, HENRY A. V. POST.
STEAM-GENERATORS.

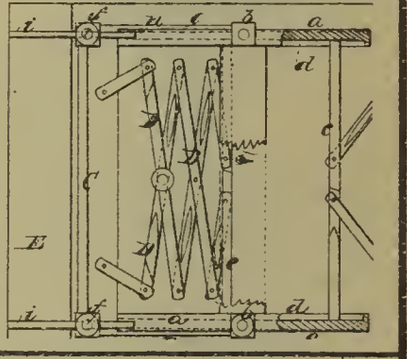


100,444, WILLIAM PRUETT.
SPRING SEAT FOR WAGONS.

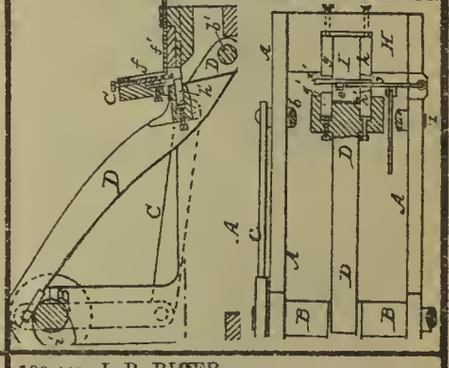


100,445, JAS. S. RAY. COFFIN-HANDLES.

100,446, WM. REICHENBACH.
FRETRICH ROSCHDIANTZKY.
EXTENSION-TABLE.



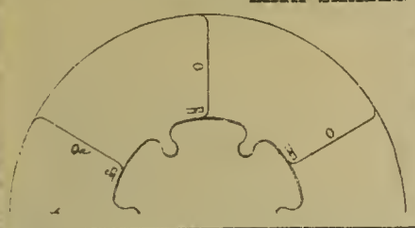
100,447, PHILEMON RICHARDS.
NAIL-CUTTING MACHINES.



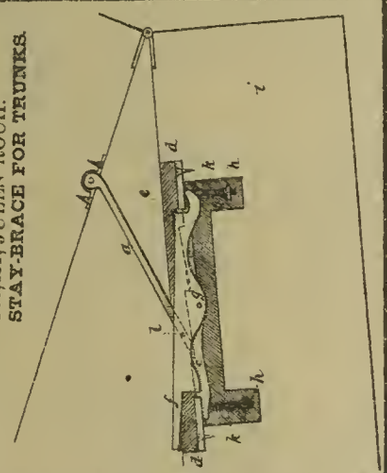
100,448, J. P. RIDER.
JAMES R. BIRD.
COVERING THE ENDS OF RUBBER HOSE

100,449, W. H. ROBERTS.
DEVICE FOR SECURING UNIFORM MOTION IN PUMPING-ENGINES

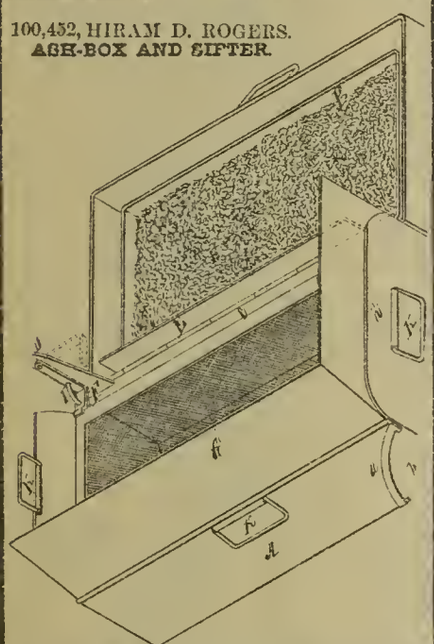
100,450, WILLIAM ROBINSON. LAMP-SHADES.



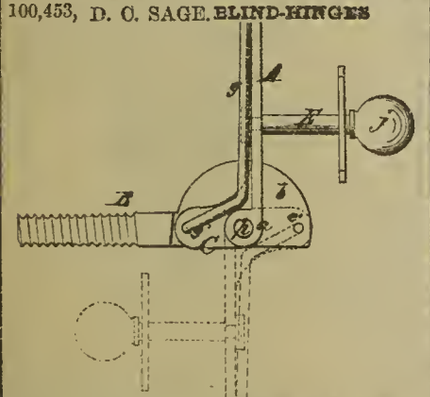
100,451, JULES ROCH. STAY-BRACE FOR TRUNKS.



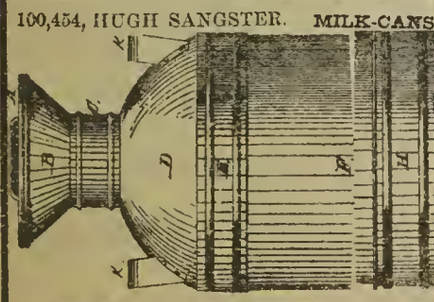
100,452, HIRAM D. ROGERS. ASH-BOX AND SIFTER.



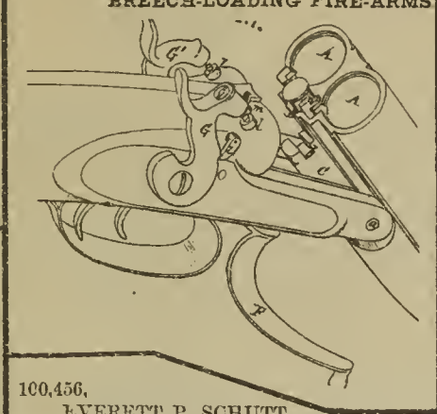
100,453, D. C. SAGE. BLIND-HINGES



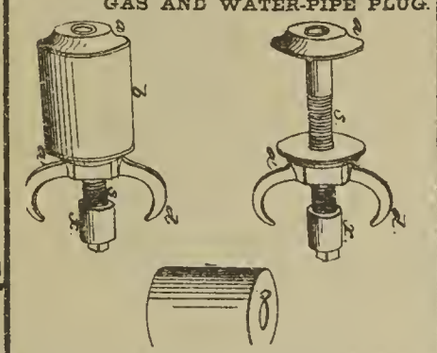
100,454, HUGH SANGSTER. MILK-CANS.



100,455, EDWARD LEVI SARGENT. BREECH-LOADING FIRE-ARMS.

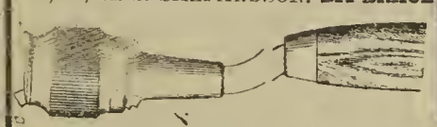


100,456, EVERETT P. SCHUTT. GAS AND WATER-PIPE PLUG.

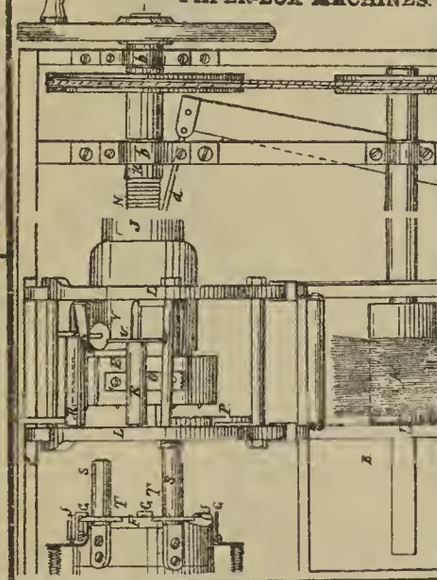


100,457, CHARLES U. SHEPARD, Jr. PREPARING AMMONIATED SULPHURIC ACID FOR THE MANUFACTURE OF FERTILIZERS.

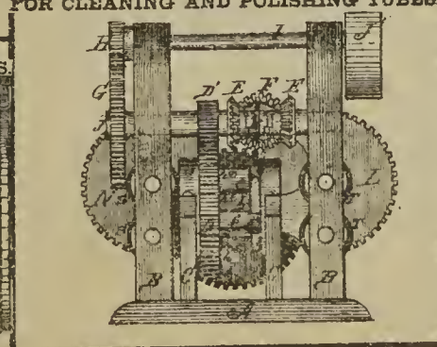
100,458, H. S. SHEPARDSON. BIT-BRACE



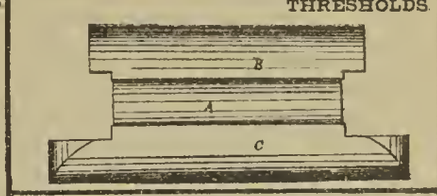
100,459, DANIEL SIMMONS. PAPER-BOX MACHINES.



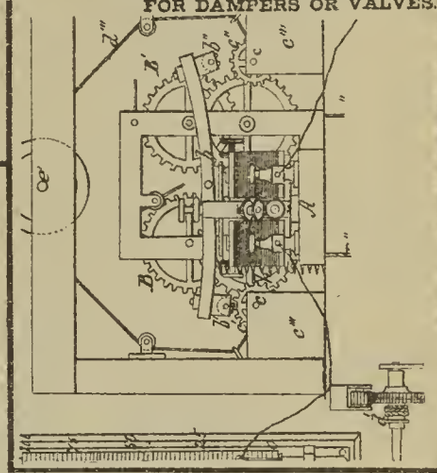
100,460, HORACE S. SMITH, WILLIAM HUGHES. MACHINE FOR CLEANING AND POLISHING TUBES.



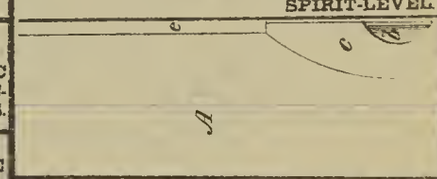
100,461, WILLIAM D. ST. CLAIR. THRESHOLDS.



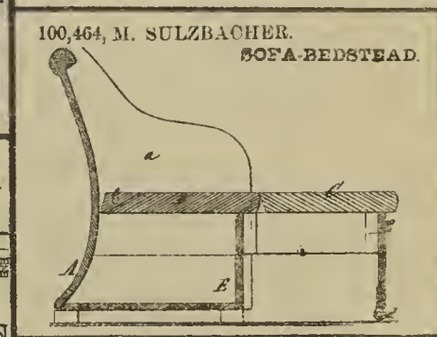
100,462, ELECTRO-MAGNETIC REGULATOR FOR DAMPERS OR VALVES.



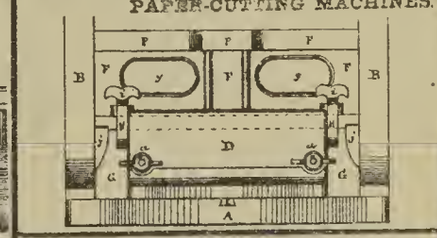
100,463, EDWIN A. STRATTON, CHARLES M. STRATTON. SPIRIT-LEVEL.



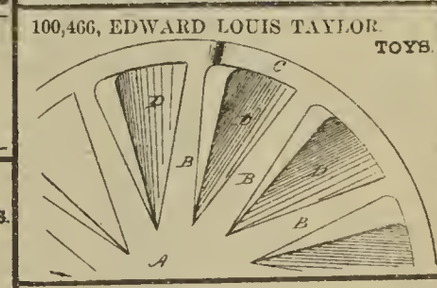
100,464, M. SULZBACHER. SOFA-BEDSTEAD.



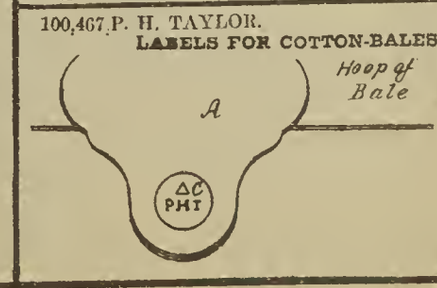
100,465, F. B. SWEETLAND. PAPER-CUTTING MACHINES.



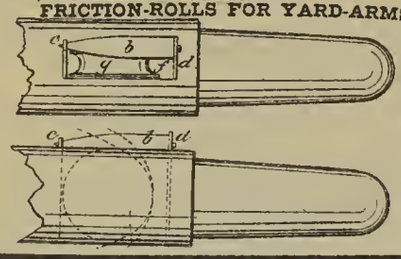
100,466, EDWARD LOUIS TAYLOR. TOYS.



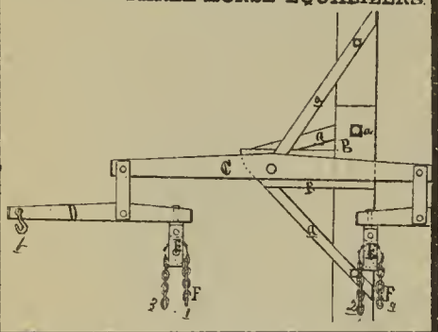
100,467, P. H. TAYLOR. LABELS FOR COTTON-BALES.



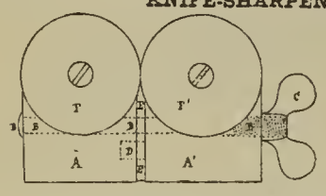
100,468, FRANK THOITS.
FRICTION-ROLLS FOR YARD-ARMS.



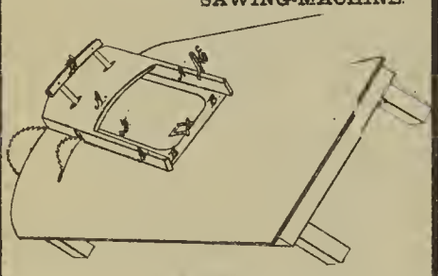
100,469, JOHN T. THORNTON.
THREE-HORSE EQUALIZERS.



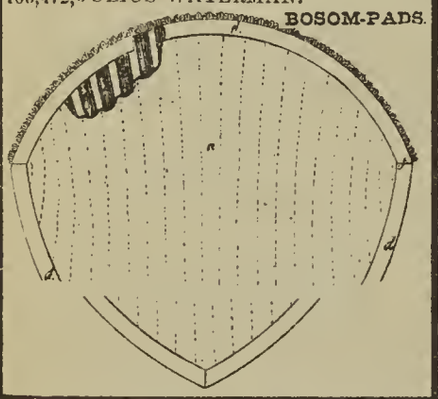
100,470, THOMAS VICKERY.
KNIFE-SHARPENERS.



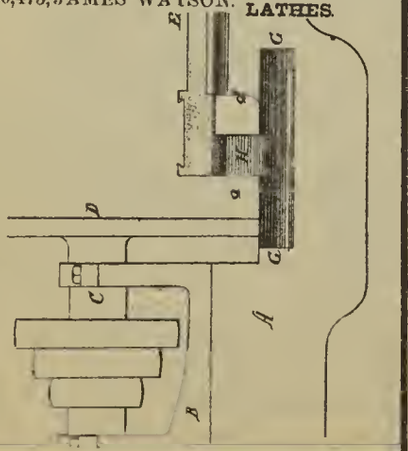
100,471, JOHN WALLING.
SAWING-MACHINE.



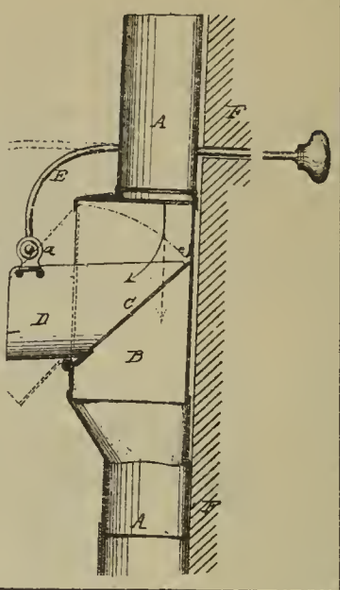
100,472, JULIUS WATERMAN.
BOSOM-PADS.



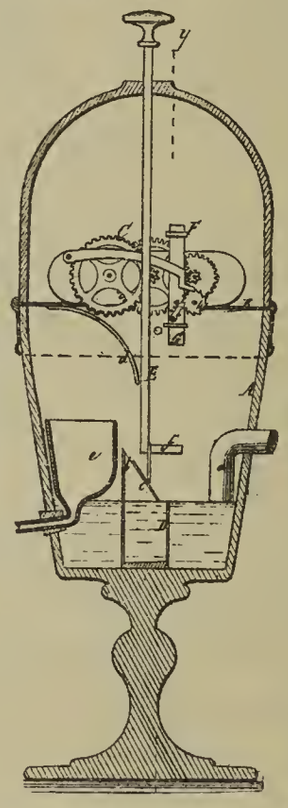
100,473, JAMES WATSON. **LATHES.**



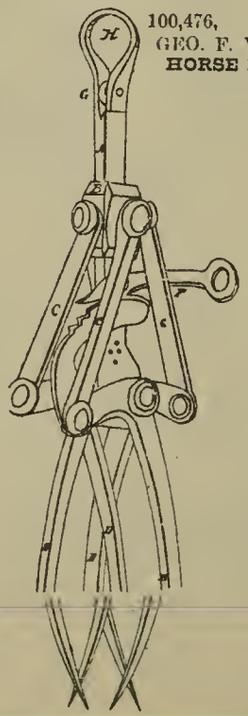
100,474,
J. P. WATSON.
CISTERN CUT-OFFS.



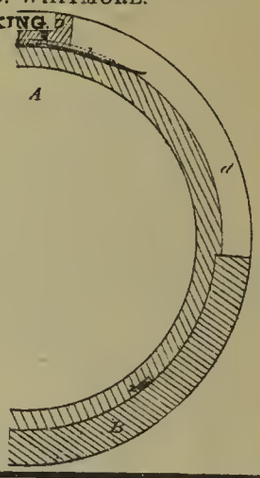
100,475,
A. WERKMEISTER. **LIQUID-MEASURING AND REGISTERING DEVICE.**



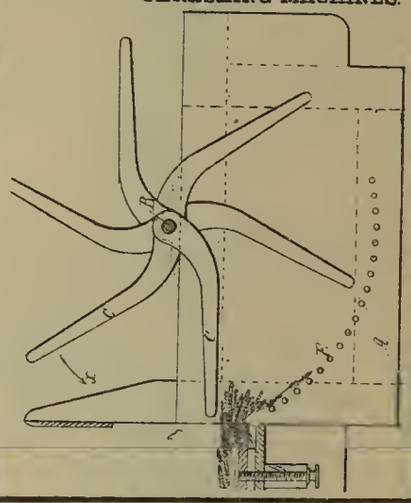
100,476,
GEO. F. WEYMOUTH.
HORSE HAY-FORKS.



100,477, WM. D. WHITMORE.
PISTON-PACKING.

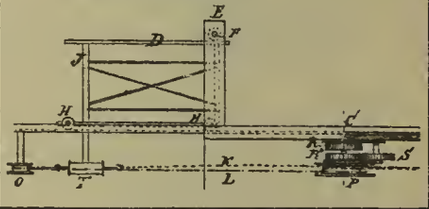


100,478, A. S. WHITTEMORE.
JOHN E. ATWOOD.
THRASHING-MACHINES.

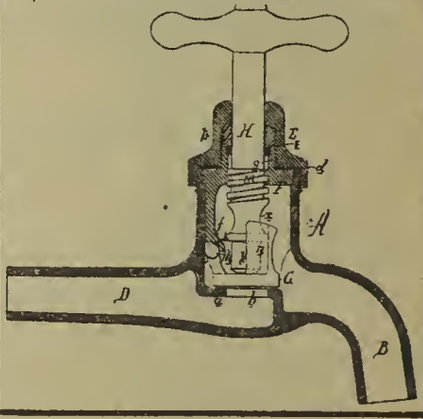


100,479. CANCELED.

100,480, JULIUS WILCKE. **BRIDGE-GATE.**
M. ELLENBOGEN.



100,481, JAMES WILSON. **VALVE-COCKS.**



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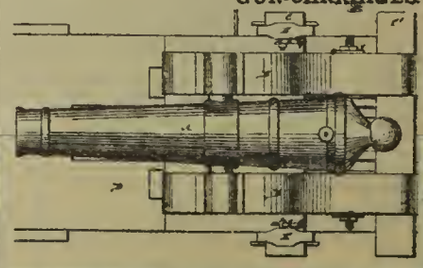
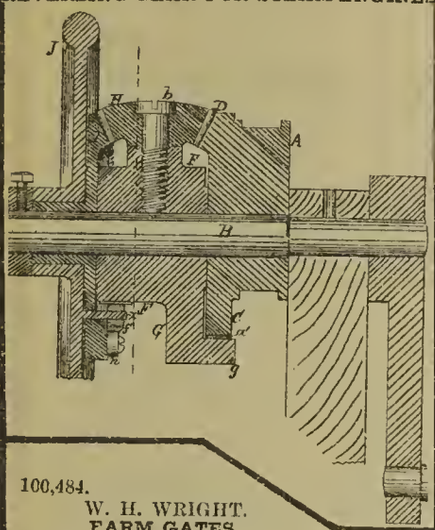


100,483, D. A. WOODBURY.
REVERSING-GEAR FOR STEAM-ENGINES.



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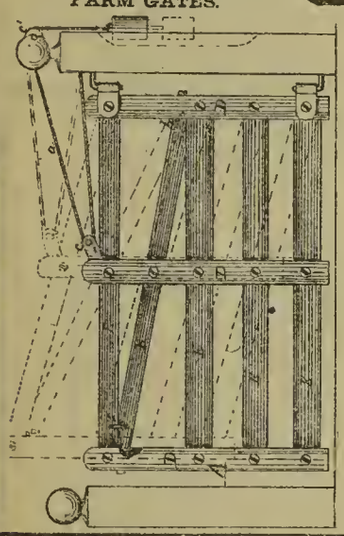
W. H. WRIGHT.
FARM GATES.



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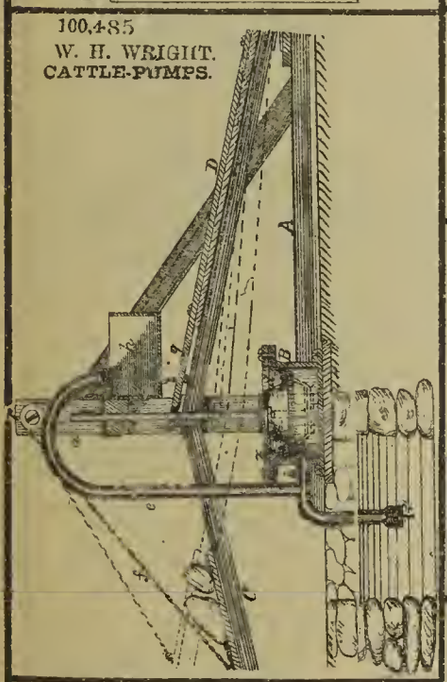

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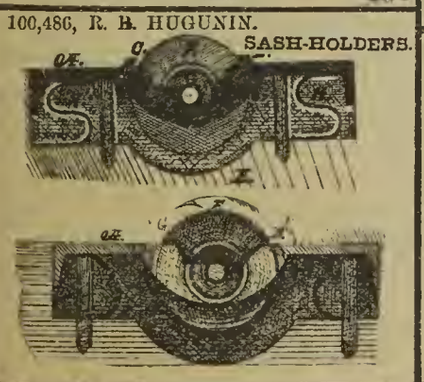
SASH-HOLDERS.



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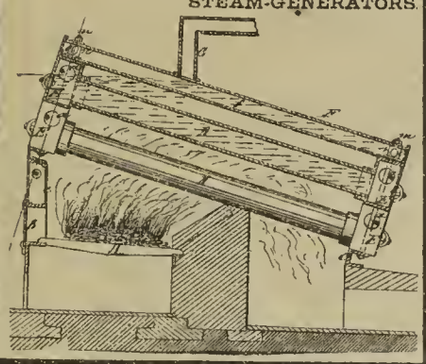
G. W. WUNDRAM.
T. H. MÜLLER.
STEAM-GENERATORS.



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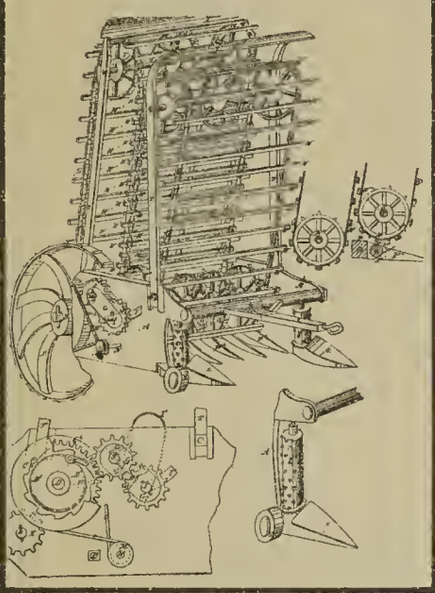
HAY-RAKER AND LOADER



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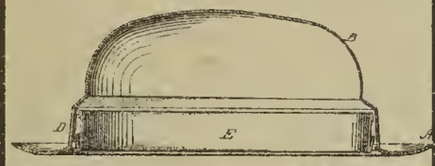
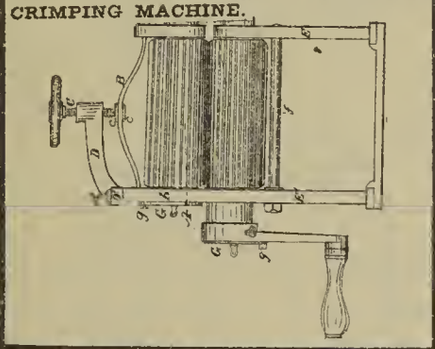
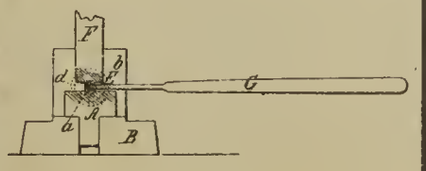


3,856. F. B. CABELL.
CRIMPING MACHINE.



3,857, JAMES D. WHELPLEY.
JACOB J. STORER.
APPLICATION OF FUEL IN METALLURGIC AND OTHER FURNACES.

3,858, O. M. DRAPER.
DEVICE FOR SWAGING CHAIN-LINKS.



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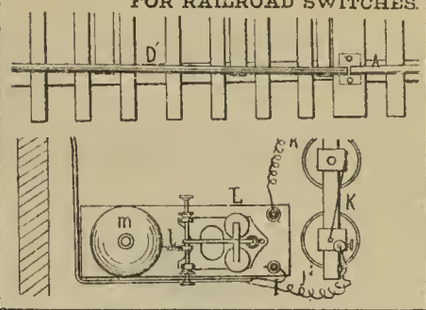
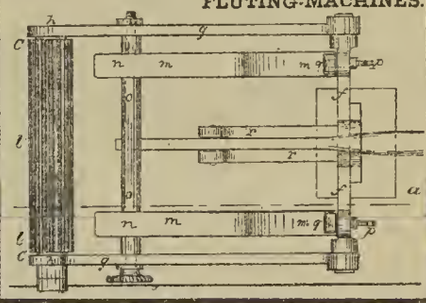
R. E. RICE,
ELECTRO-MAGNETIC ALARMS FOR RAILROAD SWITCHES.

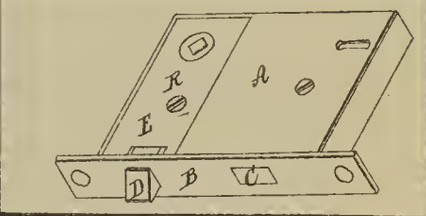


3,860, WM. CLEVELAND HICKS.
BREECH-LOADING FIRE-ARMS.

3,861, MRS. SUSAN R. KNOX.
FLUTING-MACHINES.



3,862 BURTON MALLORY.
REVERSIBLE LATCHES.



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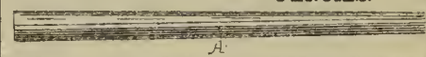
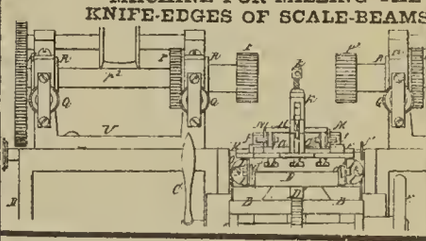
PENCILS.

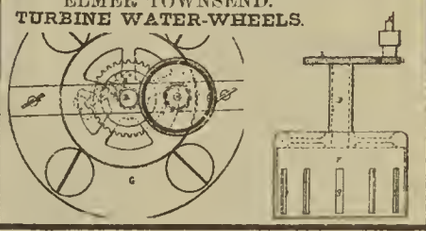


3,864, L. F. ROBERTSON. COMPOUNDS FOR TREATING HIDES AND SKINS.

3,865, T. J. ROCKWOOD.
MACHINE FOR MILLING THE KNIFE-EDGES OF SCALE-BEAMS.

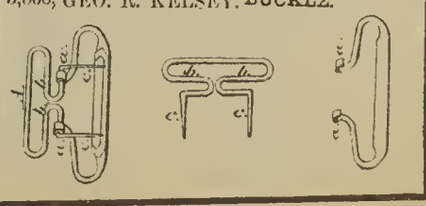


3,866, BRADFORD STETSON.
ELMER TOWNSEND.
TURBINE WATER-WHEELS.



3,867, JOSEPH A. TATRO.
PROCESS OF TREATING PETROLEUM.

3,868, GEO. R. KELSEY. BUCKLE.



ILLUSTRATIONS OF PATENTS

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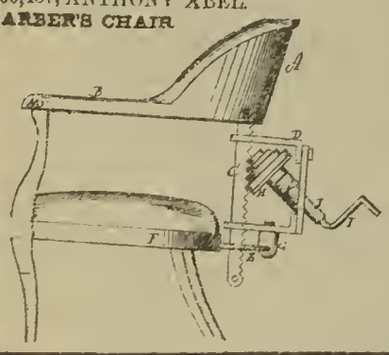
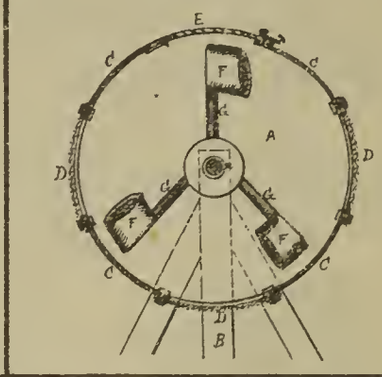
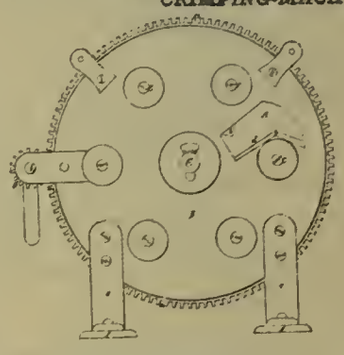
MARCH 8, 1870.

100,487, ANTHONY ABEL.
BARBER'S CHAIR.





100,498, WILLIAM BUTTERFIELD.
CRIMPING-MACHINE.



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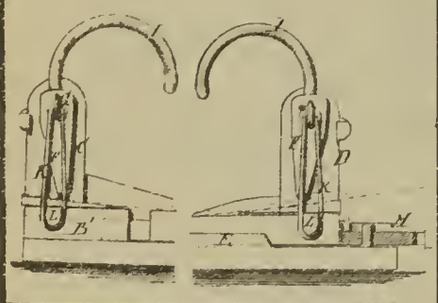
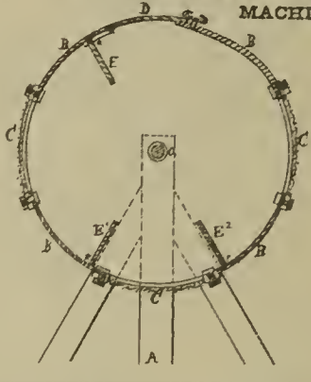
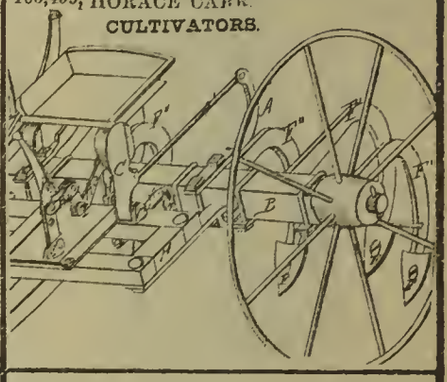
TIRE-UPSETTING MACHINE.



100,493, J. W. BRADY. COFFEE-CLEANING MACHINE



100,499, HORACE CARR.
CULTIVATORS.



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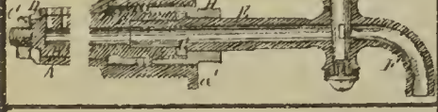
SAMUEL RICKER.
FAUCETS.



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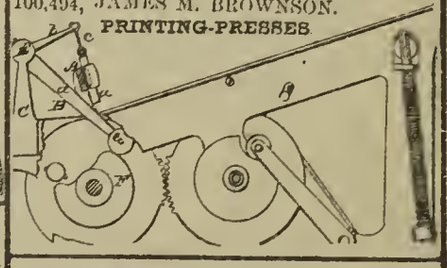

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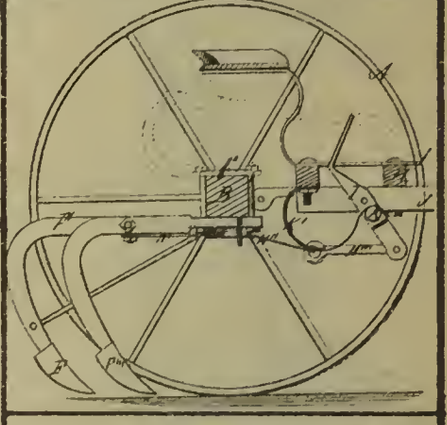
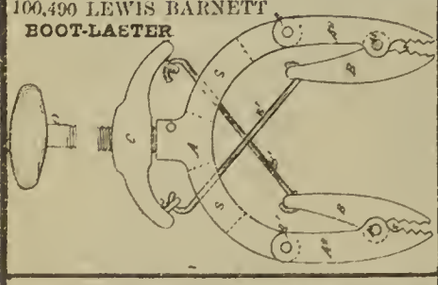


100,490 LEWIS BARNETT
BOOT-LASTER



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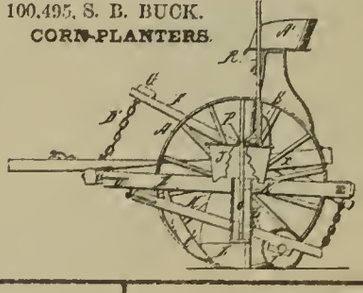
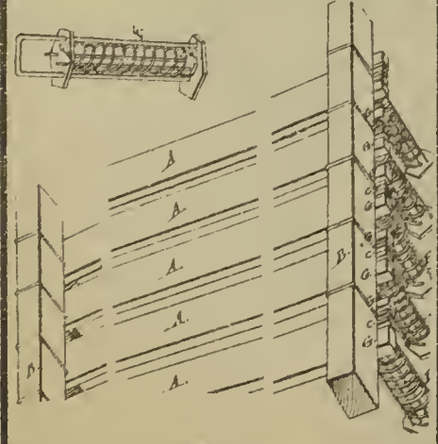
CORN-PLANTERS.



100,491, WILLIAM BOWEN. BED-BOTTOM.



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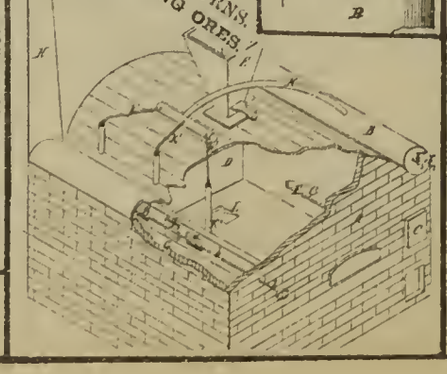
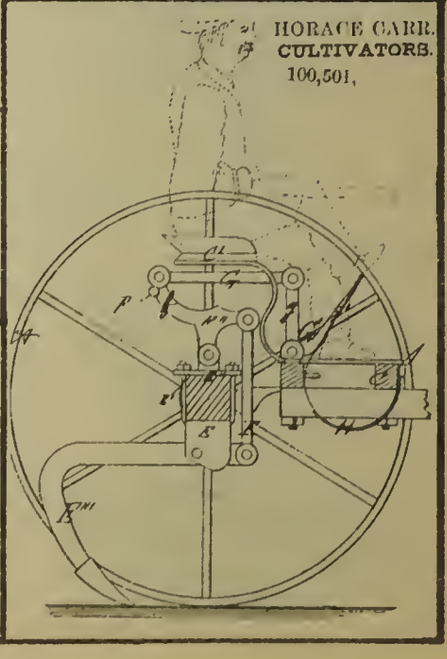
ELIZABETH A. BURNS.
DESULPHURIZING ORES.

IRA BUCKMAN, JR.

100,496,
FRUIT-JARS.

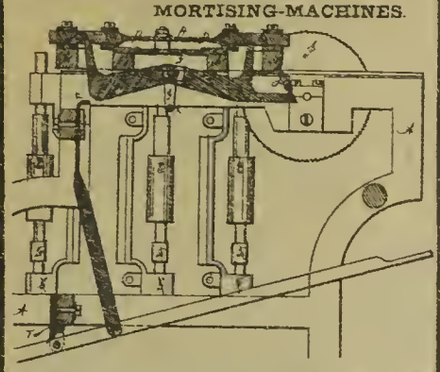


HORACE CARR.
CULTIVATORS.
100,501.

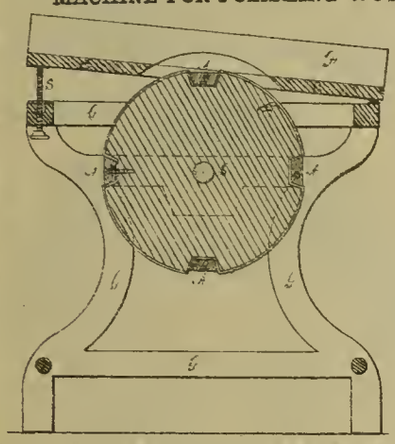


100,492 J. W. BRADY.
COFFEE-CLEANING MACHINES.

100,502. FRANK G. CHAPMAN. MORTISING-MACHINES.

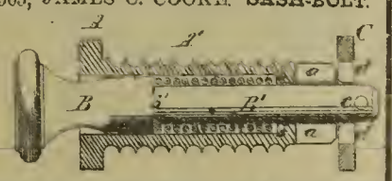


100,503, FRANK G. CHAPMAN. MACHINE FOR POLISHING WOOD.

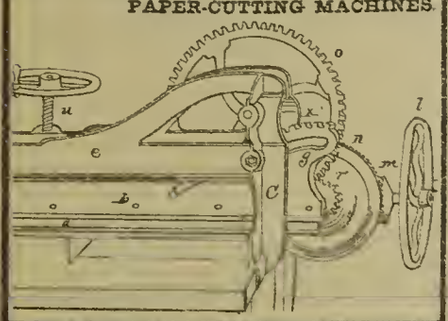


100,504, D. D. CODDING BRACELETS.

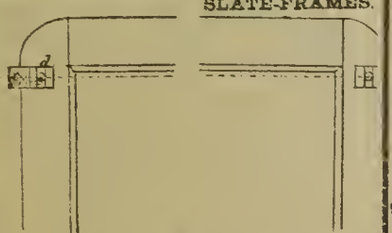
100,505, JAMES C. COOKE. SASH-BOLT.



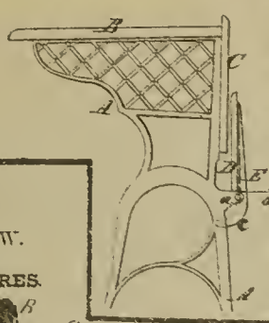
100,506, ARTHUR W. CURRIER PAPER-CUTTING MACHINES.



100,507, C. B. DICKINSON. SLATE-FRAMES.



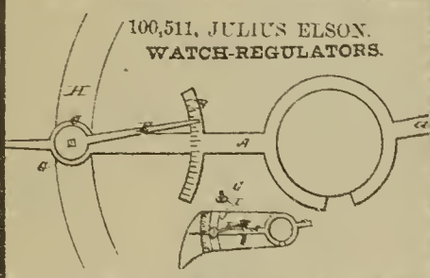
100,508, J. D. DIFFENDERFER. SCHOOL-DESK AND SEAT.



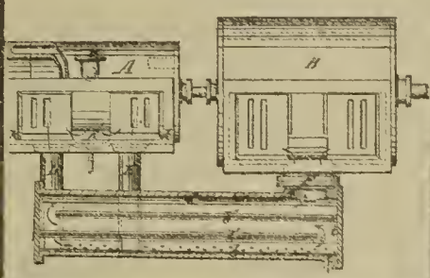
100,509, EDWIN O. DOW. STOP FOR BILLIARD-WIRES.

100,510, JOHN H. DURRAN. RATCHET AND PAWL.

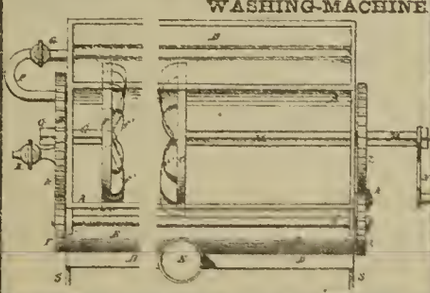
100,511, JULIUS ELSON. WATCH-REGULATORS.



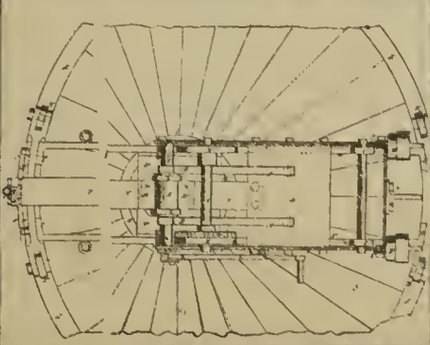
100,512, CHAS. E. EMERY. STEAM AND WATER-SEPARATOR FOR STEAM-ENGINES.



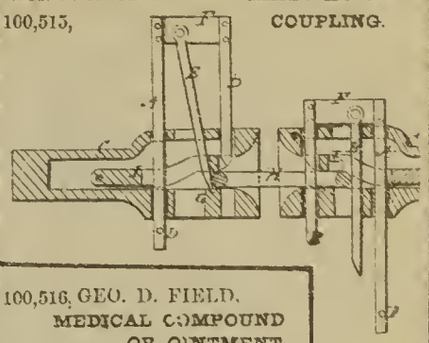
100,513, REV. F. M. ENGLISH. WASHING-MACHINE.



100,514, J. ERICSSON. GUN-CARRIAGES

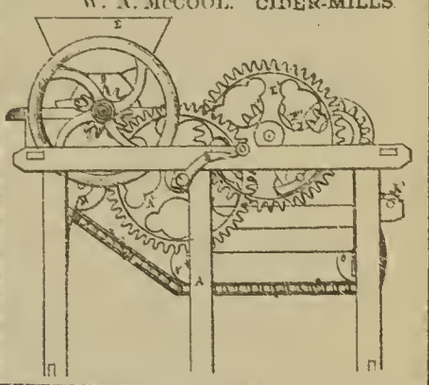


WM. J. EVANS. RAILWAY-CAR COUPLING. 100,515,

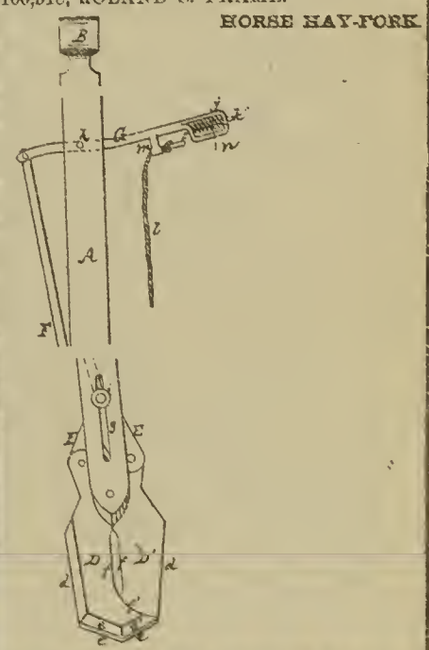


100,516, GEO. D. FIELD. MEDICAL COMPOUND OR OINTMENT.

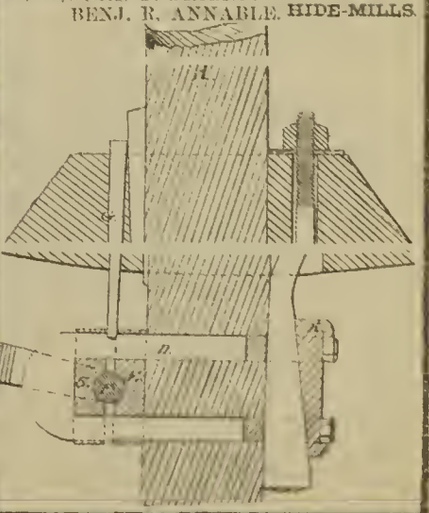
100,517, W. K. FOLTZ. W. A. McCOOL. WINE AND CIDER-MILLS.



100,518, ROLAND S. FRAME. HORSE HAY-FORK.

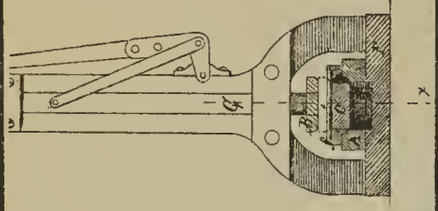


100,519, JOHN P. FRIEND. BENJ. R. ANNABLE. HIDE-MILLS.



100,520, A. D. FULLMER. TANNING.

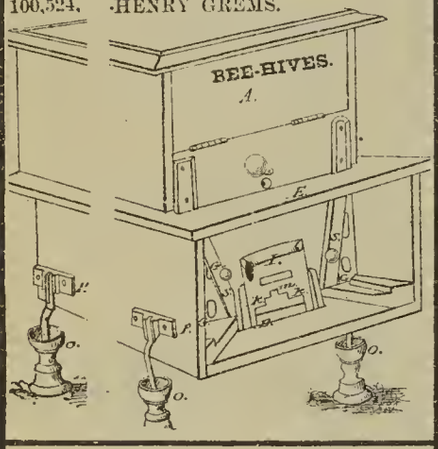
100,521, HENRY O. GANYARD.
DIE FOR FORMING SHOVELS.



100,522, LOUIS GEHLEN. HANDLES OF FOLDING UMBRELLAS.

JOHN W. GOODWYN
100,523, PULPING AND BLEACHING PAPER STOCK

100,524, HENRY GREMS.
BEE-HIVES.



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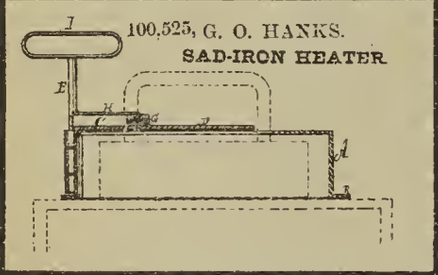
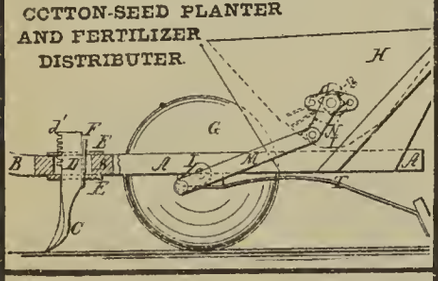
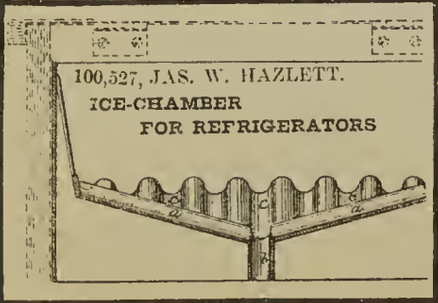
SAD-IRON HEATER.



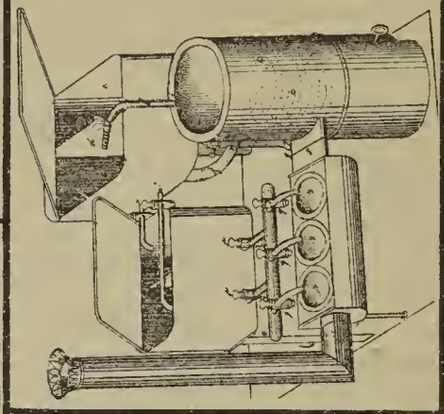
100,526, HENRY C. HARRIS.
COTTON-SEED PLANTER AND FERTILIZER DISTRIBUTER.



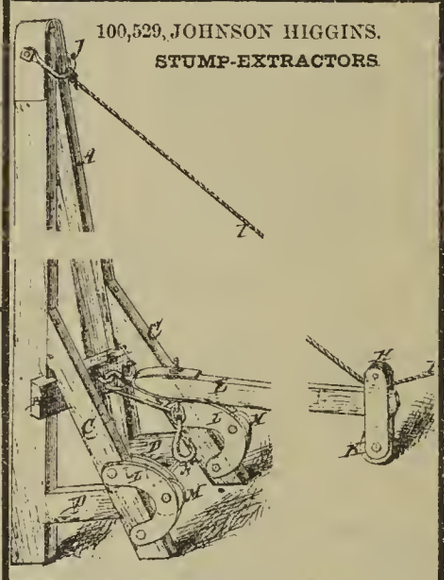
100,527, JAS. W. HAZLETT.
ICE-CHAMBER FOR REFRIGERATORS



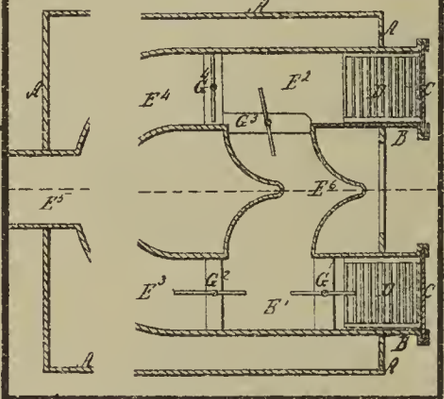
100,528, JACOB HEIM. EVAPORATING SALT-BRINES AND OTHER LIQUIDS.



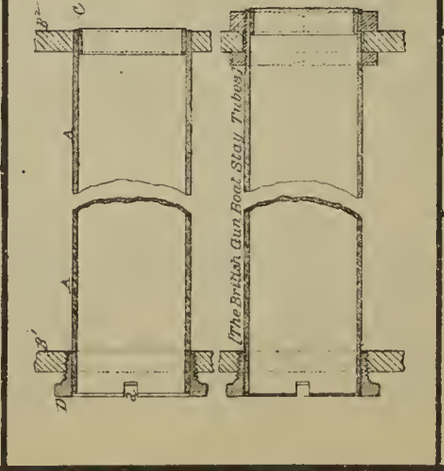
100,529, JOHNSON HIGGINS.
STUMP-EXTRACTORS.



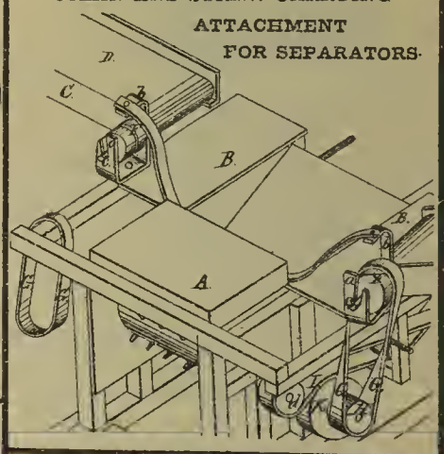
100,530, WILEY B. HIX.
FLUE FOR DRY-HOUSES.



100,531, GEORGE P. HUNT.
TUBE-FASTENING FOR STEAM-GENERATORS.



100,532, BENJAMIN F. JACKSON. BYRON JACKSON.
GRAIN AND STRAW-CARRYING ATTACHMENT FOR SEPARATORS.



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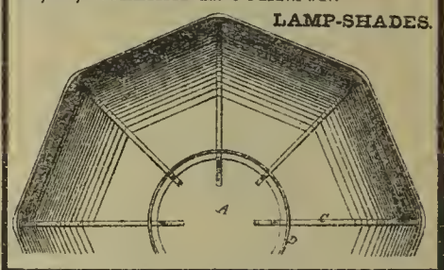
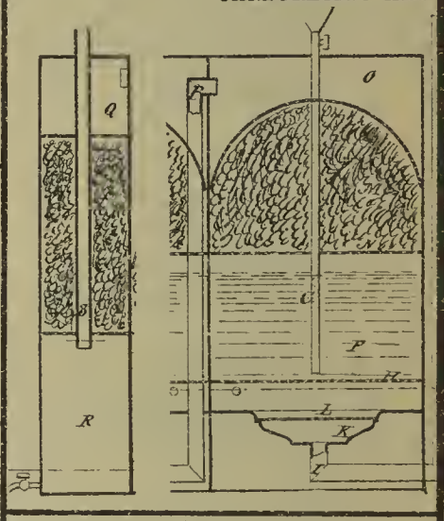
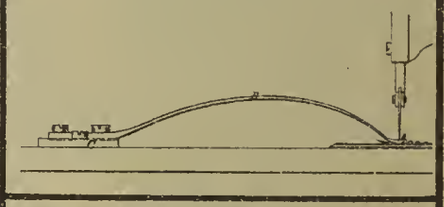
LAMP-SHADES.



100,534, CHARLES LAWRENCE.
CARBURETING AIR.

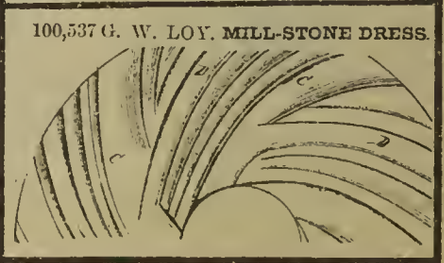


100,535, WILLIAM LEE. CORRUGATIONS OF BOOT AND SHOE UPPERS.



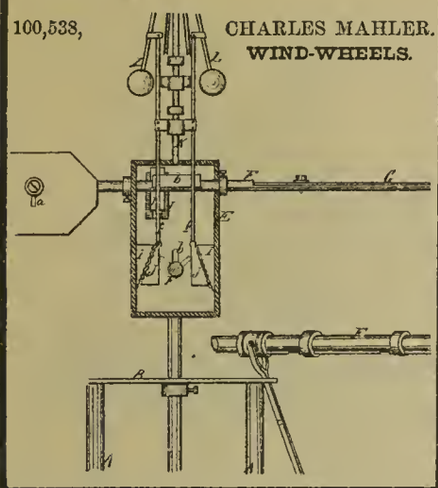
100,536, E. C. LOUD.
STOVE-GRATE.

100,537 G. W. LOY. MILL-STONE DRESS.

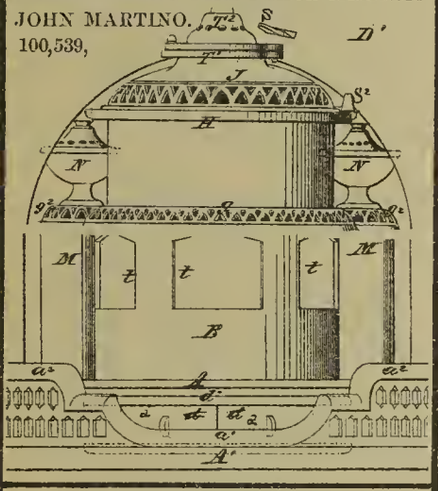


[The British Gun Foot Stay Tubes]

100,538, CHARLES MAHLER.
WIND-WHEELS.

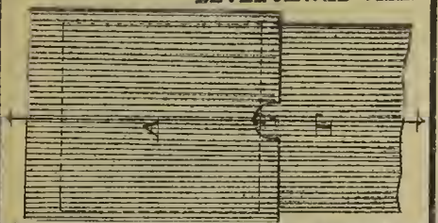


BASE-BURNING FIRE-PLACE HEATER.
JOHN MARTINO.
100,539,

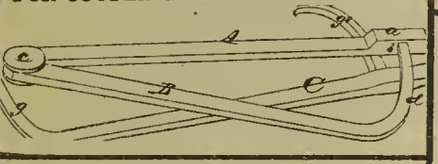


100,540, MARY JANE McCOLL.
MANUFACTURE OF WAX-FLOWERS.

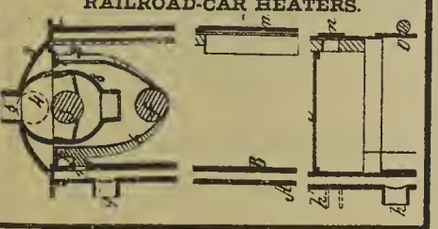
100,541, AUSTIN Z. MASON.
BEVEL-JAWED VISE.



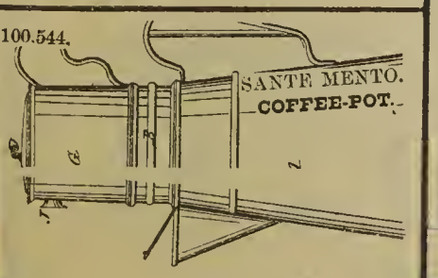
100,542, ABNER McOMBER.
MINA WARD.
INSTRUMENT FOR COUPLING RAILWAY-CARS.



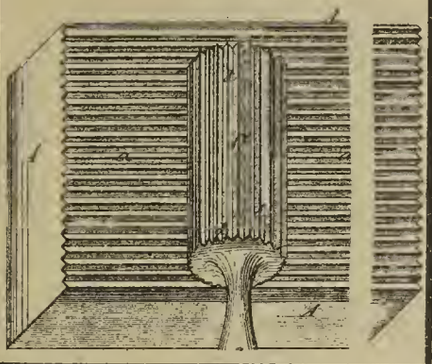
100,543, WILLIAM MELLER.
RAILROAD-CAR HEATERS.



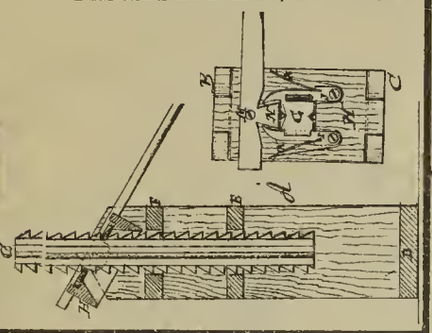
100,544.
SANTE MENTO.
COFFEE-POT.



100,545, GEORGE B. MILL.
MEAT-POUNDER, BLOCK, AND CHOPPING-BOWL.



100,546, SAML. MILLER.
PRESSES FOR HAY, COTTON, &c.



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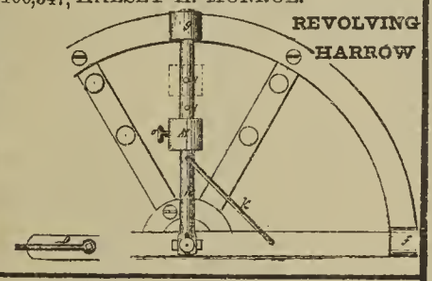
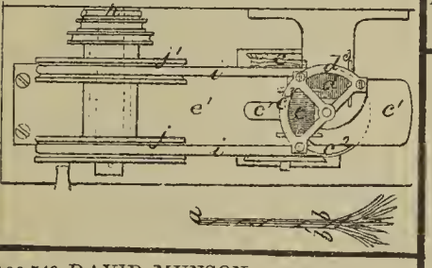
REVOLVING HARROW

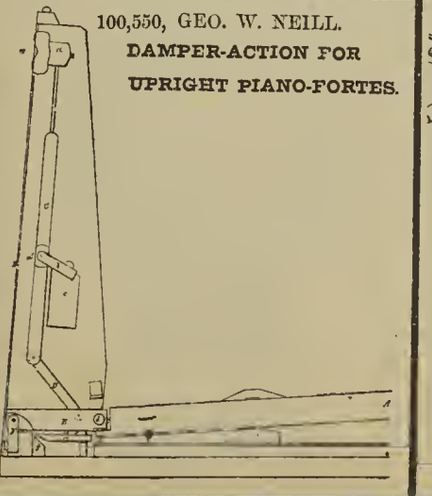


100,548, ROBERT MORRISON.
PREPARING BUTTON-HOLE TWIST.



100,549, DAVID MUNSON.
LIGHTNING-RODS.

100,550, GEO. W. NEILL.
DAMPER-ACTION FOR UPRIGHT PIANO-FORTES.



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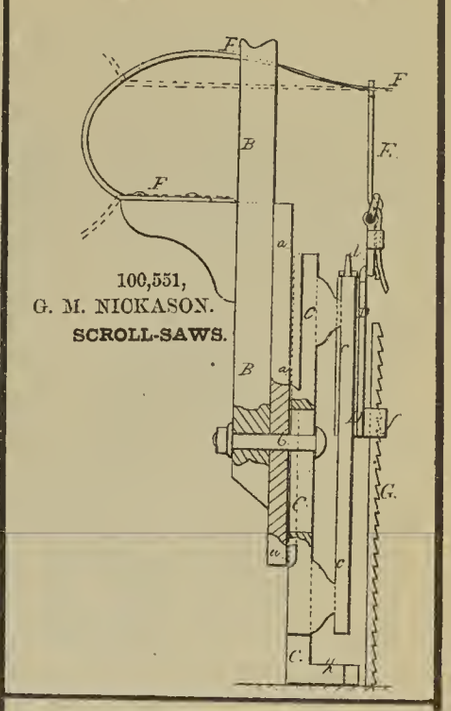
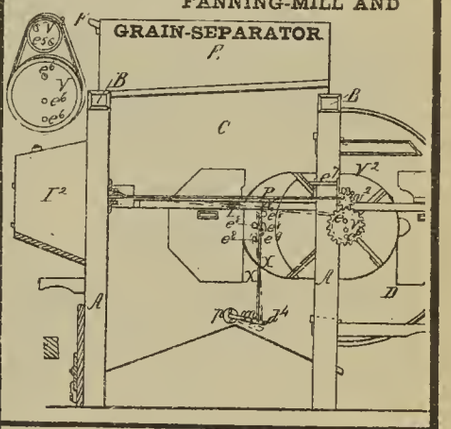
G. M. NICKASON.
SCROLL-SAWS.

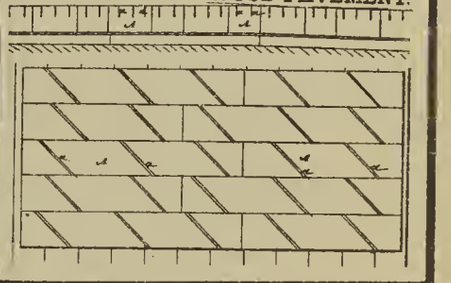


100,552, HARRISON OGBORN.
FANNING-MILL AND GRAIN-SEPARATOR.

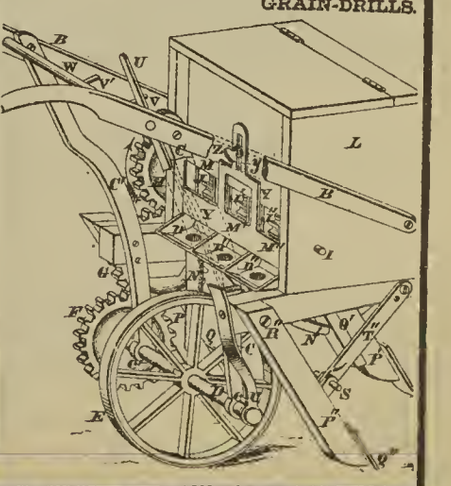


100,553, THOMAS L. OLDEN.
PURIFYING ACETIC ACID.

100,554, A. WARNER PLATT.
WOOD PAVEMENT.

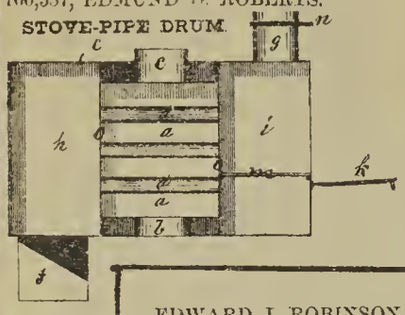


100,555, HIRAM PULSE.
GRAIN-DRILLS.

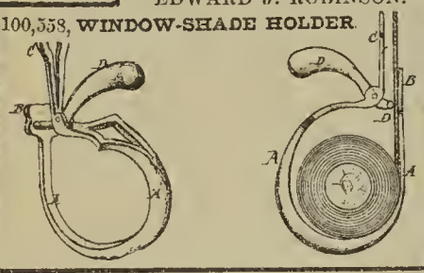


100,556, SUSPENDED.

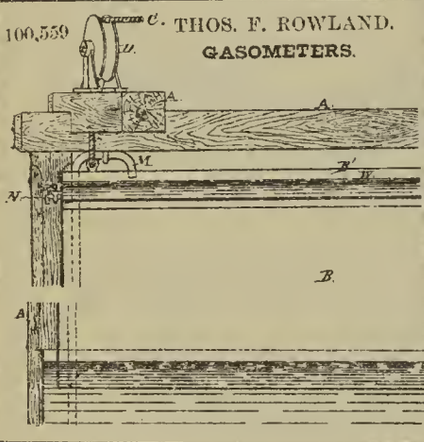
100,557, EDMUND D. ROBERTS.
STOVE-PIPE DRUM.



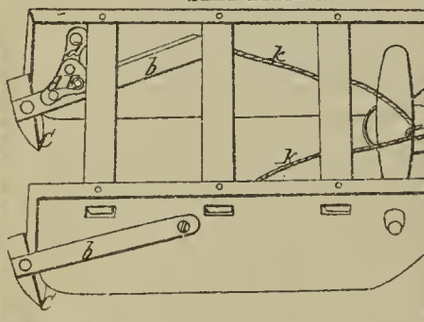
EDWARD J. ROBINSON.
100,558, WINDOW-SHADE HOLDER.



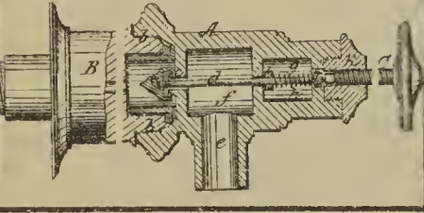
100,559 THOS. F. ROWLAND.
GASOMETERS.



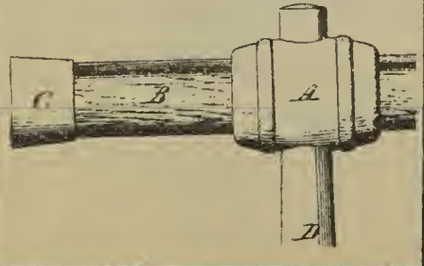
100,560, GEORGE W. SANBORN.
SLED-BRAKES.



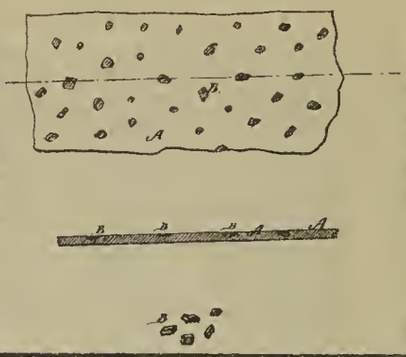
100,561, CARL SCHULTZ.
THOMAS WARKER.
SELF-CLOSING FAUCETS.



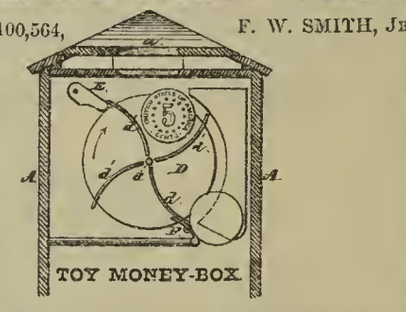
100,562, SAMUEL C. SEARLES.
CALKERS' MALLET.



100,563, SIMON P. SIVER.
FELTED FABRICS.

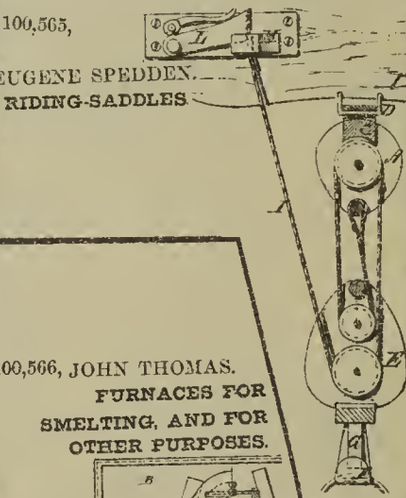


100,564, F. W. SMITH, JR.

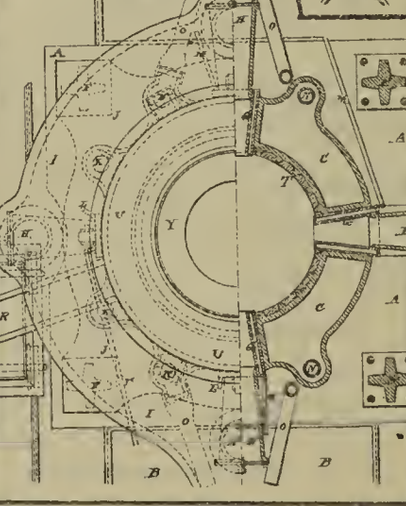


TOY MONEY-BOX.

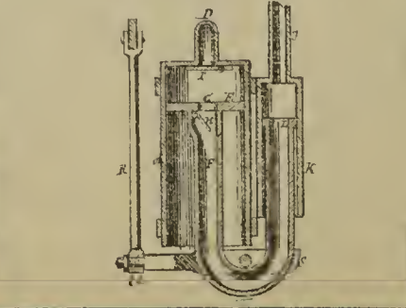
100,565,
EUGENE SPEDDEN.
RIDING-SADDLES.



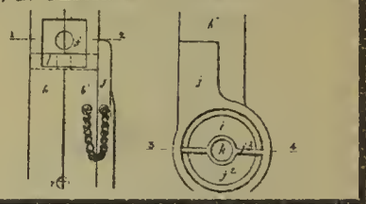
100,566, JOHN THOMAS.
FURNACES FOR SMELTING, AND FOR OTHER PURPOSES.



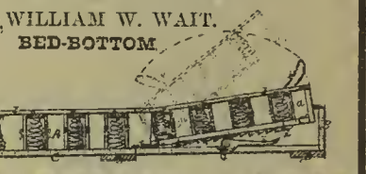
100,567, WILLIAM L. THOMAS.
BALANCED WATER-ELEVATOR.



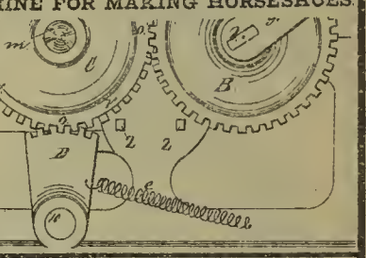
100,568, G. ULMANN. SEAL-LOCKS.



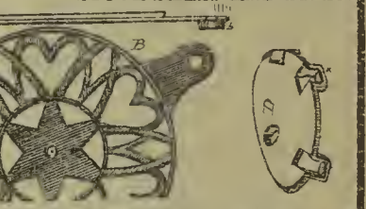
100,569, WILLIAM W. WAIT.
BED-BOTTOM.



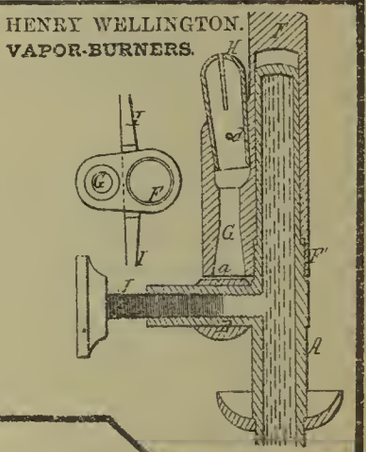
100,570, EDWIN WASSELL.
MACHINE FOR MAKING HORSESHOES.



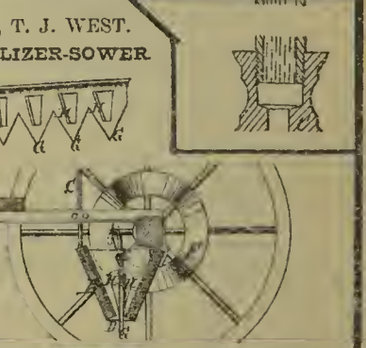
100,571, JOHN J. WATSON.
STOVE-SHELF AND DRIER.



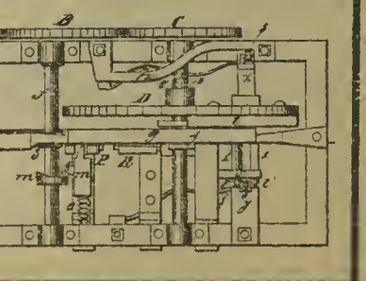
100,572, HENRY WELLINGTON.
VAPOR-BURNERS.



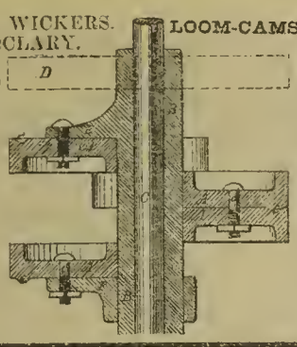
100,573, T. J. WEST.
FERTILIZER-SOWER.



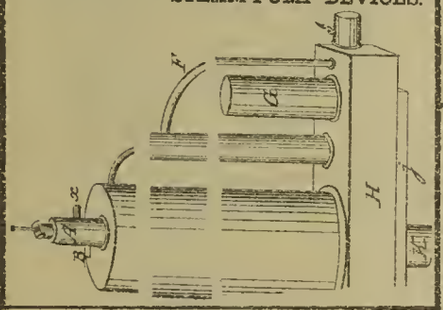
100,574, CHARLES W. WETTENGEL.
MACHINE FOR MAKING HORSESHOES.

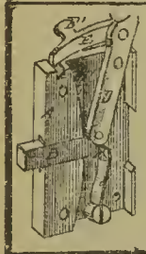


GEO. O. WICKERS.
T. J. McCLARY.
100,575, LOOM-CAMS.

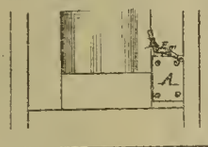


100,576, MARTIN WILCOX.
STEAM-PUMP DEVICES.

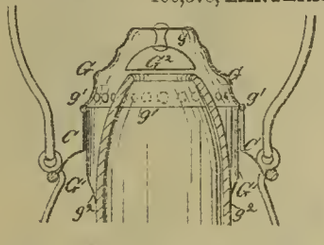


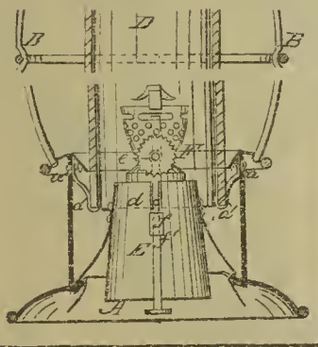


100,577, JAMES WILKINSON.
IN SASH-HOLDERS.

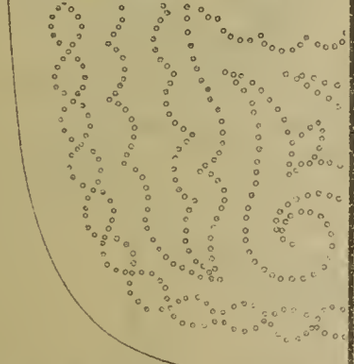


ARNOLD WITHMAR.
100,578, LANTERNS.



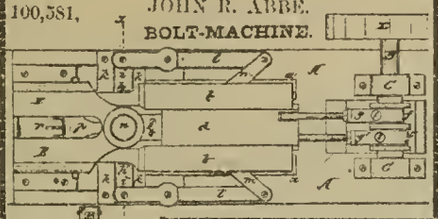


100,579. W. P. WOLFINGTON.
METHOD OF LAYING OFF PATTERNS FOR STITCHING ON LEATHER.

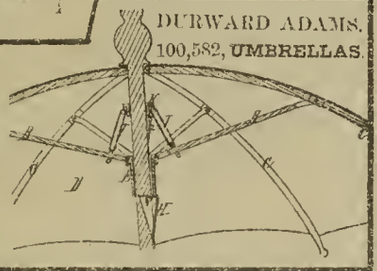


100,580, E. G. WRIGHT.
INLAYING METALLIC SURFACES.

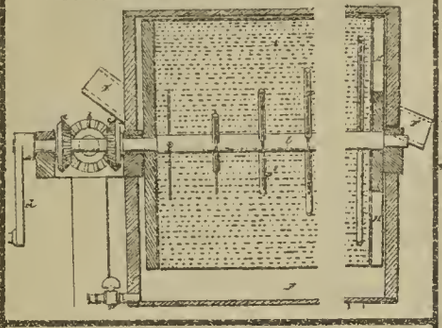
100,581, JOHN R. ABBE.
BOLT-MACHINE.



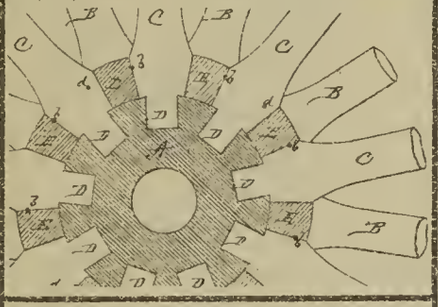
DURWARD ADAMS.
100,582, UMBRELLAS.



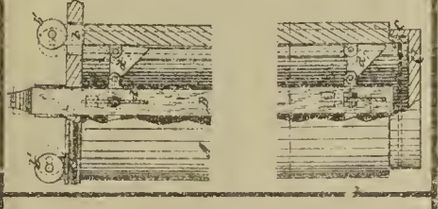
100,583, E. D. AVERELL.
JOSEPH MALAN.
VEGETABLE AND FRUIT-PEELER.



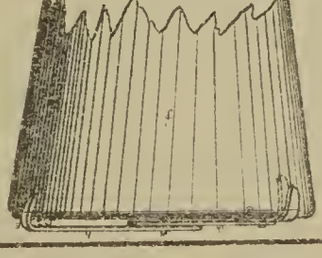
100,584, J. R. BAIRD. CARRIAGE-WHEELS.



100,585, ANSON BALDING.
EXPANSIBLE CORES FOR CASTING IRON, GLASS, &c.



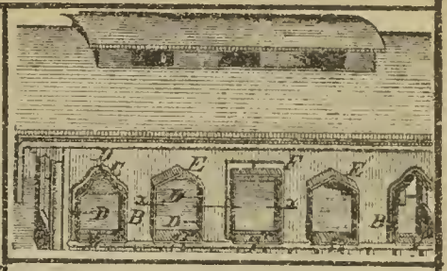
100,586, E. W. H. BASS.
MUSTACHE-GUARD FOR DRINKING-VESSELS.



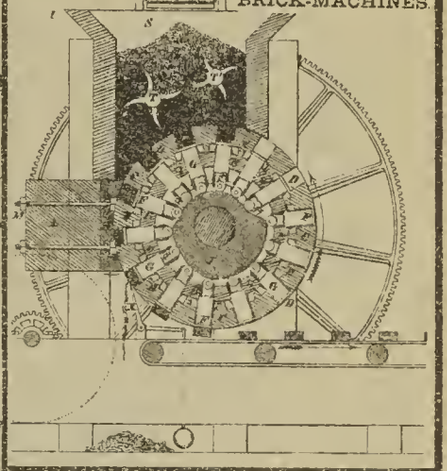
100,587, C. G. BAYLOR.
AN ARTICLE OF DIET.

100,588, EZRA BLAKELEY.
PAINT COMPOUND.

100,589. ISAAC BONNELL, Jr.
RAILROAD-CAR VENTILATOR.



100,590, GEORGE C. BOVEY.
BRICK-MACHINES.



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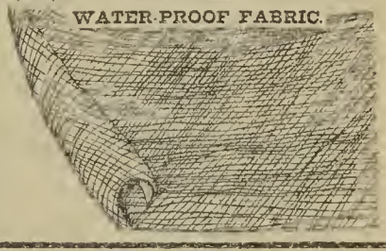
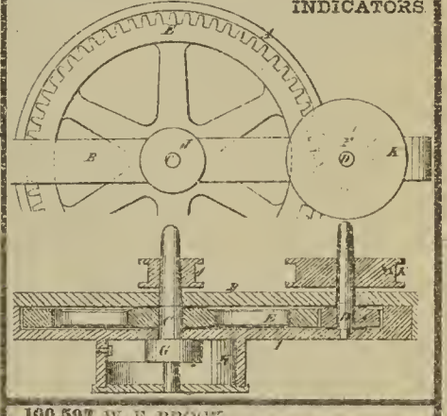
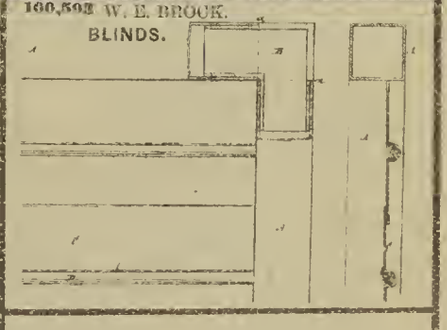
WATER-PROOF FABRIC.



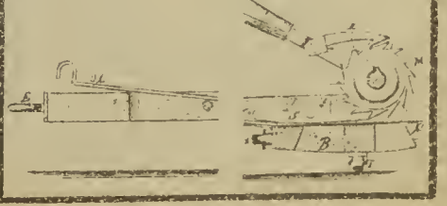
100,592, HENRY L. BREVOORT.
REDUCING-GEAR FOR STEAM-ENGINE INDICATORS.



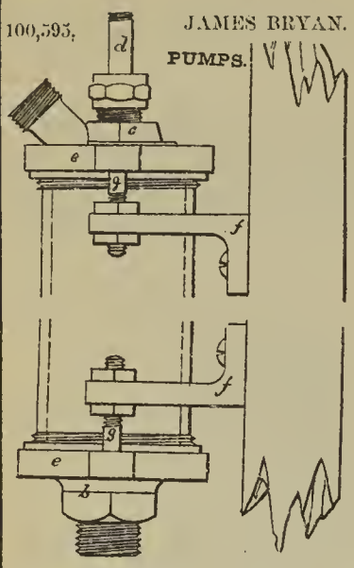
100,593 W. E. BROOK.
BLINDS.



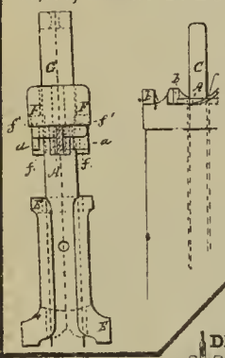
100,594, JOHN S. BROWN.
ADJUSTABLE WINDLASSES.



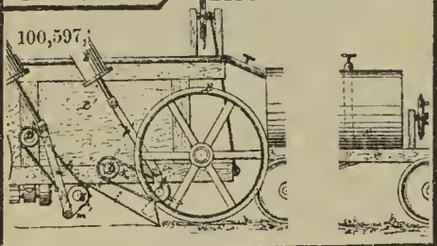
100,595, JAMES BRYAN.
PUMPS.



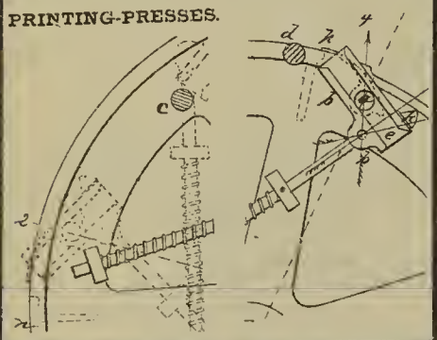
100,596, JAMES D. BUTLER.
LET-OFF AND TENSION DEVICES FOR SPOOLS OF BRAIDING-MACHINES.



JAS. CALLIHAM.
DITCHING-MACHINE
100,597,



100,598, ANDREW CAMPBELL.
PRINTING-PRESSES.



H. C. CASE. ANIMAL-TRAP.
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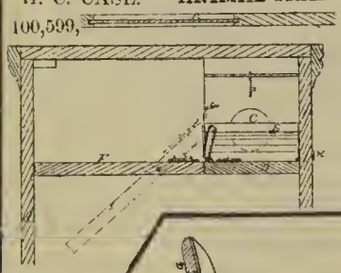

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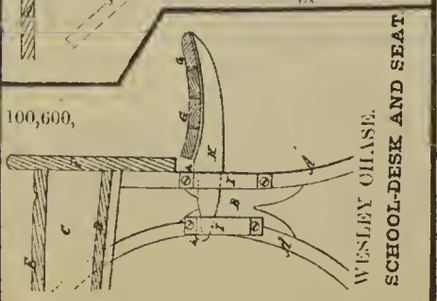
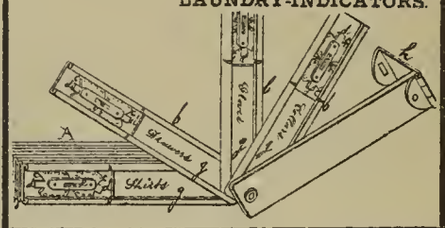
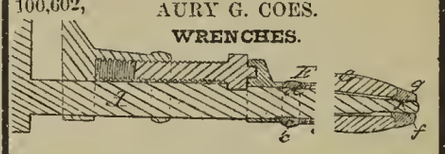


WESLEY CHASE.
SCHOOL-DESK AND SEAT

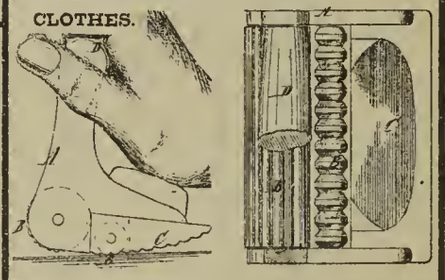
100,601, ROBERT CLARKE.
LAUNDRY-INDICATORS.



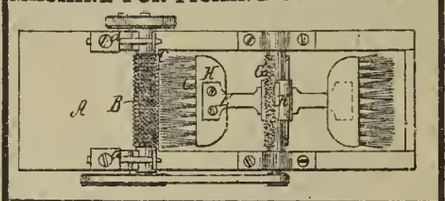
100,602, AURY G. COES.
WRENCHES.



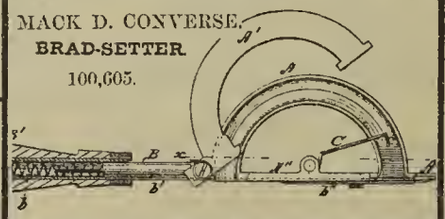
100,603, G. F. J. COLBURN.
HAND-RUBBER FOR WASHING CLOTHES.



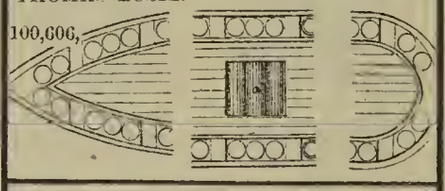
100,604, NOAH L. COLE.
MACHINE FOR PICKING CURLED HAIR



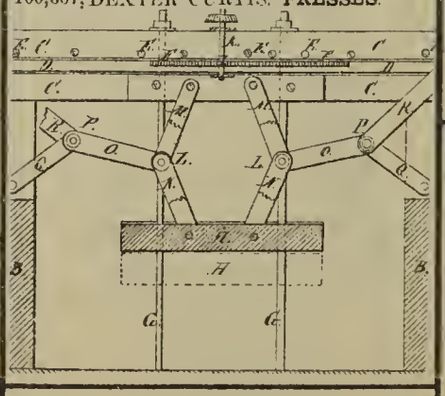
MACK D. CONVERSE.
BRAD-SETTER.
100,605.



G. W. COREY.
THOMAS LOSIE. FLOATING SHIPS.
100,606,

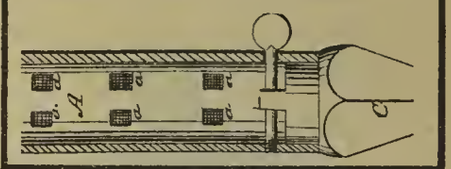


100,607, DEXTER CURTIS. PRESSES.

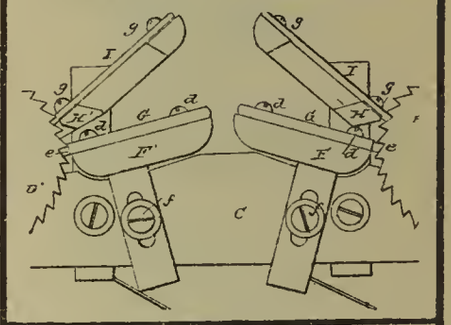


100,608, E. J. DE SMEDT. COMPOSITION FOR PRESERVING TIMBER AND WOOD.

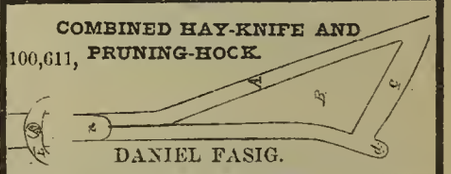
100,609, SAMUEL H. DICKERSON.
WELL-BORER.



100,610, SETH C. ELLIS.
MACHINE FOR MAKING SASH.

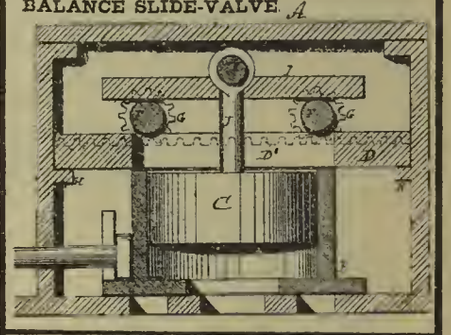


COMBINED HAY-KNIFE AND
100,611, PRUNING-HOCK.

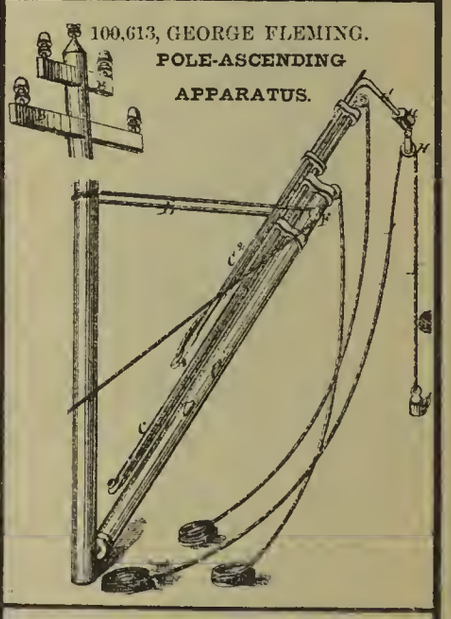


DANIEL FASIG.

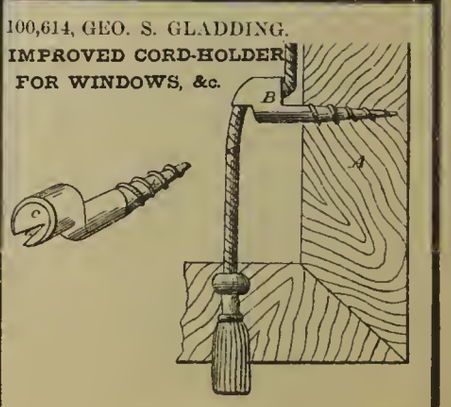
100,612, JAMES FITZGERALD.
BALANCE SLIDE-VALVE. A



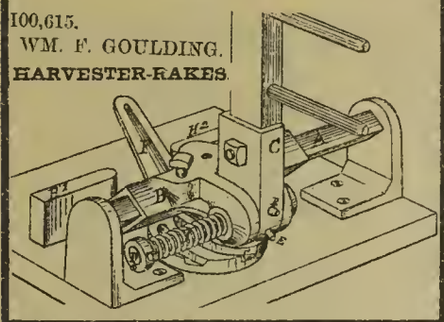
100,613, GEORGE FLEMING.
POLE-ASCENDING APPARATUS.



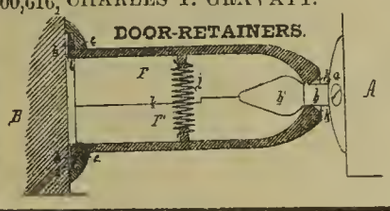
100,614, GEO. S. GLADDING.
IMPROVED CORD-HOLDER FOR WINDOWS, &c.



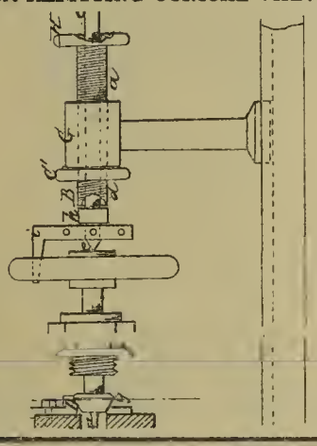
100,615. WM. F. GOULDING. HARVESTER-RAKES.



100,616, CHARLES T. GRAVATT. DOOR-RETAINERS.

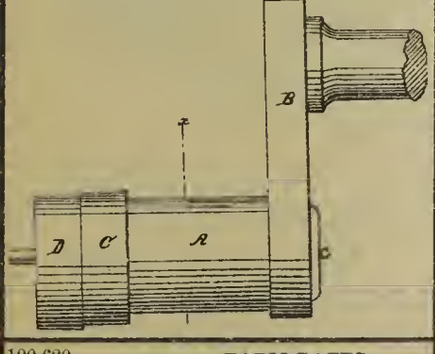


100,617, C. F. HALL. MACHINE FOR REFITTING CONICAL VALVES.

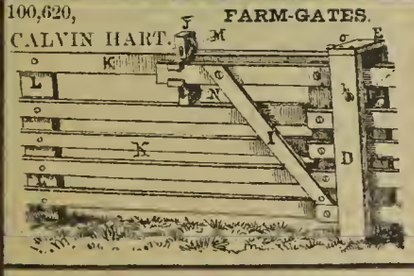


100,618, WILLIAM H. HALL. ELASTIC PROTECTOR FOR HORSES' FEET.

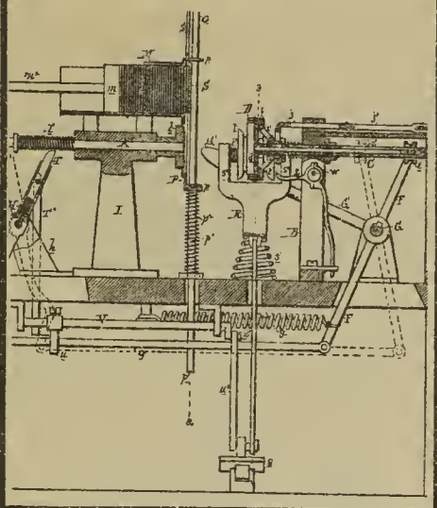
100,619, WM. HARSEN. VARIABLE CUT-OFF VALVE-GEAR.



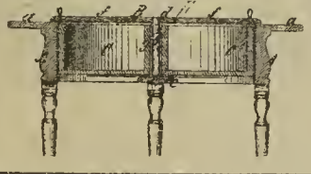
100,620, CALVIN HART. FARM-GATES.



100,621, CHARLES B. HATFIELD. PAPER-BOX MACHINES.

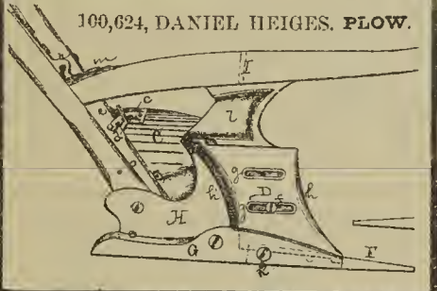


100,622, W. W. HAWLEY. SELF-WAITING TABLE.

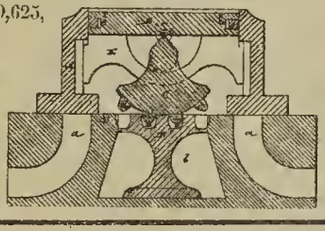


MARSHAL HAYS. 100,623, WATER-GATES.

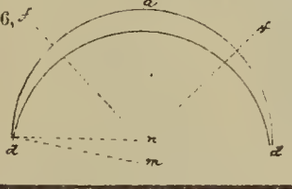
100,624, DANIEL HEIGES. PLOW.



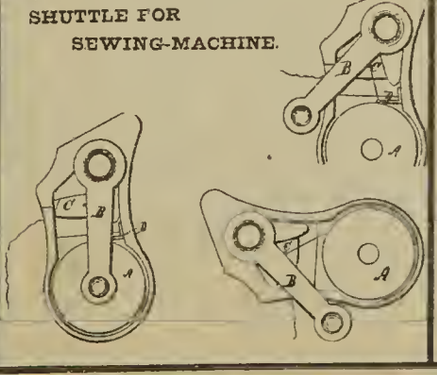
ABRM. HEMINGWAY. SLIDE-VALVES. 100,625,



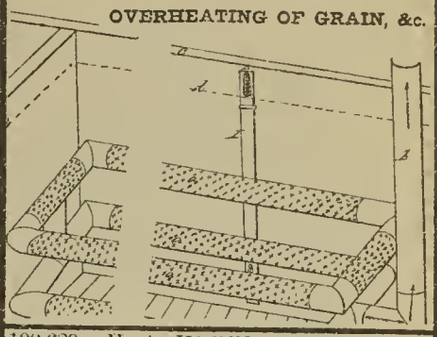
B. T. HENRY. CARRIAGE-SPRINGS. 100,626,



100,627, JAMES B. HERRESHOFF. SHUTTLE FOR SEWING-MACHINE.

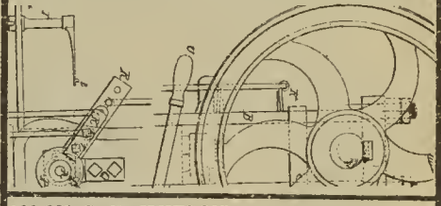


100,628, THEODORE A. HOFFMANN. ASPIRATORS FOR PREVENTING OVERHEATING OF GRAIN, &c.

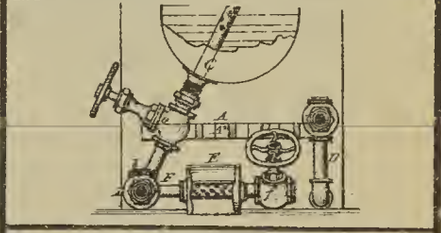


100,629. H. A. HOGEL. TREATING BLOOD FOR THE PREPARATION OF FERTILIZERS AND FOR OTHER PURPOSES.

100,630, GEO. HOPSON. MACHINE FOR PUNCHING THE LEAVES OF ELLIPTIC SPRINGS.



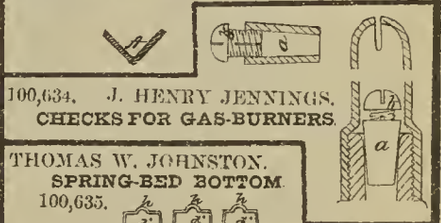
100,631, C. E. HUTSON. HOLLOW GRATE FOR STEAM-BOILERS.



100,632, THEODORE HYATT. HEAT-RESISTING MATERIALS FOR SAFES, BANK-VAULTS, &c.

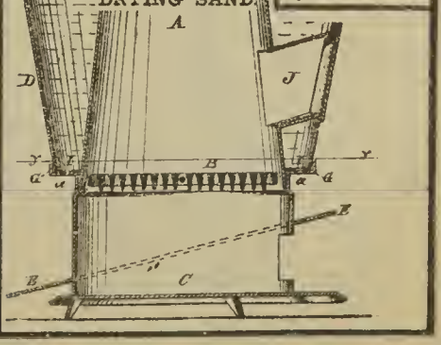
100,633, BENJ. ILLINGWORTH. DEVICE FOR PACKING AND TRANSPORTING EGGS.

100,634. J. HENRY JENNINGS. CHECKS FOR GAS-BURNERS.



THOMAS W. JOHNSTON. SPRING-BED BOTTOM. 100,635.

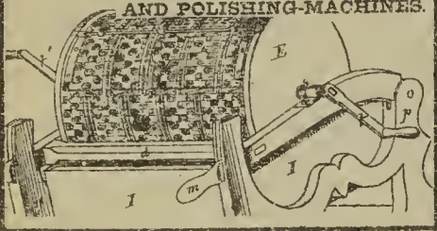
100,636, I. D. JOHNSON. A. V. HARTWELL. DRYING SAND.



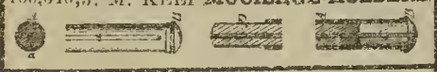
100,637, E. JONES. LAMP-CHIMNEYS.

100,638, HENRY A. JONES. TABLET, TOKEN, OR CHECK, TO BE USED IN LIFE INSURANCE.

100,639, JOHN M. KEATING. PEANUT-CLEANING AND POLISHING-MACHINES.

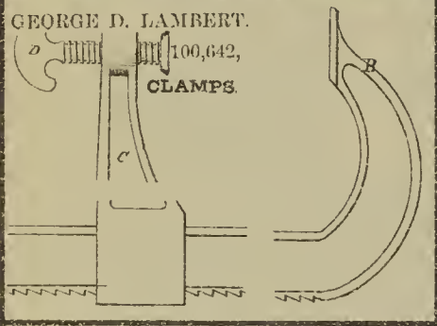


100,640, J. M. KEEP MUCILAGE-HOLDERS.

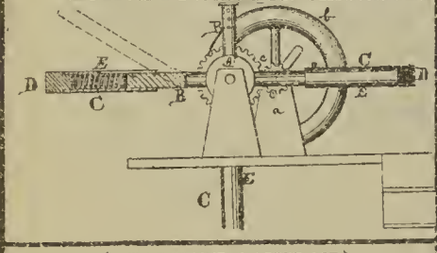


WILLIAM J. KEEPSTOVE-PIPE DAMPER 100,641.

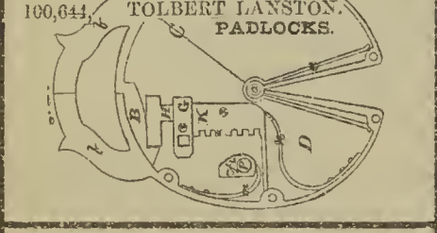
GEORGE D. LAMBERT. 100,642, CLAMPS.



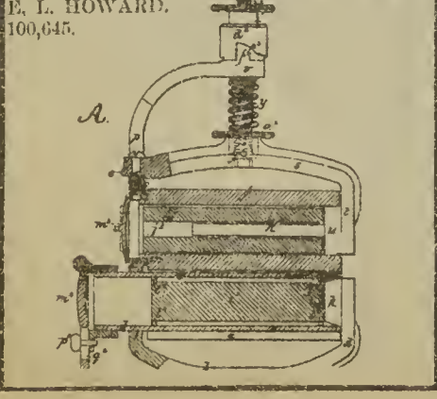
100,643, SYLVESTER L. LANGDON. MOTIVE POWER FOR CARRIAGES.



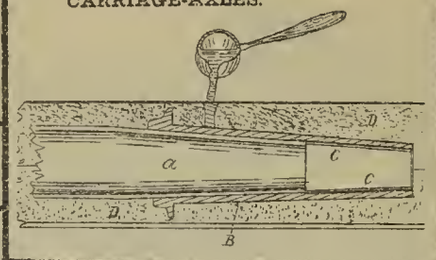
100,644, TOLBERT LANSTON. PADLOCKS.



THOMAS LEAVITT FLUTING-MACHINES. E. L. HOWARD. 100,645.

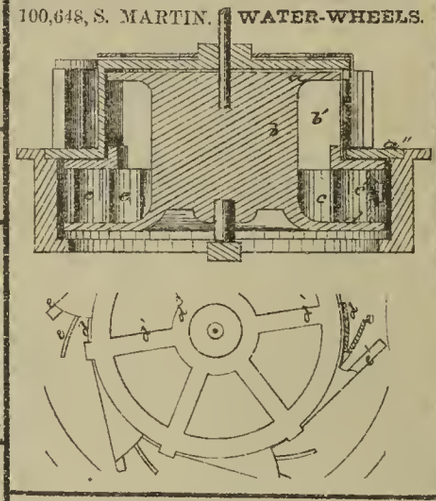


100,646, WILLIAM A. LEWIS. CARRIAGE-AXLES.

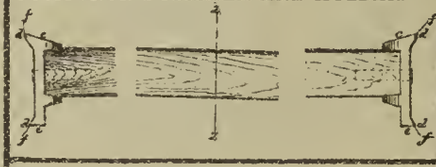


100,647 ORAZIO LUGO. TREATING LIQUORS CONTAINING GELATINE OR GLUE

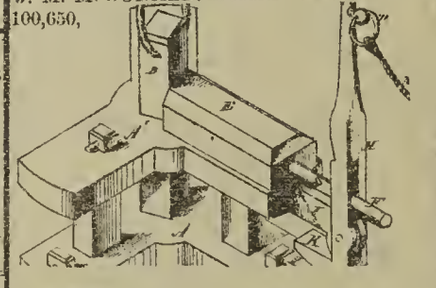
100,648, S. MARTIN. WATER-WHEELS.



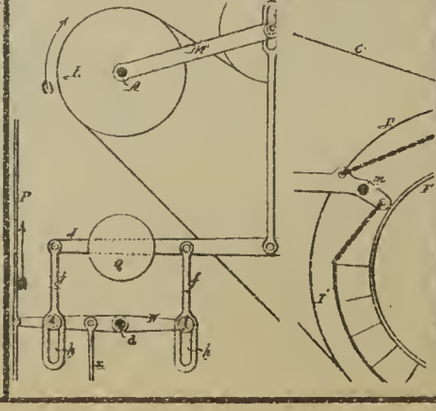
100,649, W. B. MASON. FLAT-IRON POLISHER AND HOLDER.



J. M. McDONALD. HORSE HAY-FORK. 100,650,

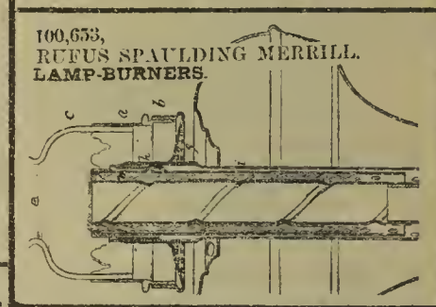


WILLIAM HENRY MERRICK. 100,651, SAFETY-MECHANISM FOR HOISTING-APPARATUS.

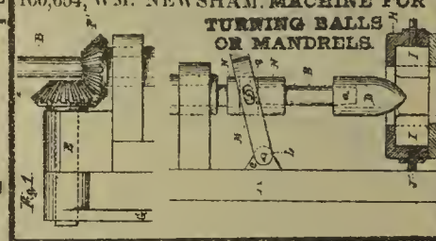


100,652, JOSHUA MERRILL. COMPOUND FOR STUFFING LEATHER.

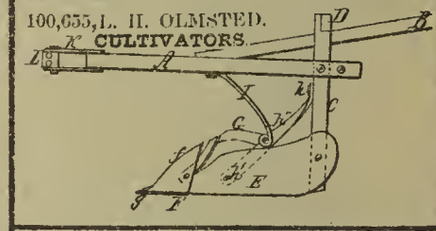
100,653, RUFUS SPAULDING MERRILL. LAMP-BURNERS.



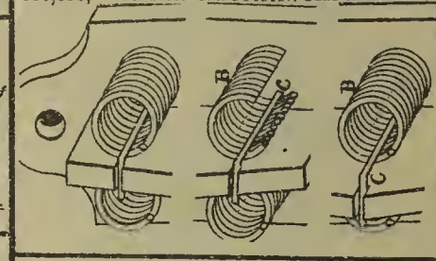
100,654, WM. NEWSHAM. MACHINE FOR TURNING BALLS OR MANDRELS.



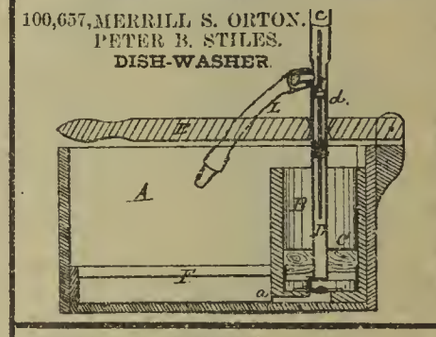
100,655, L. H. OLMSTED. CULTIVATORS.



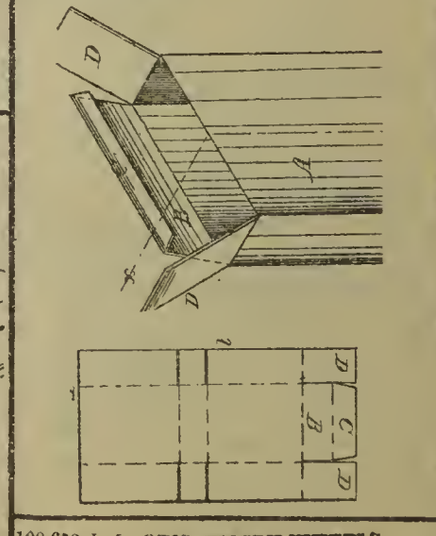
100,656, WALTER NOTMAN. CARD-RACKS.



100,657, MERRILL S. ORTON. PETER B. STILES. DISH-WASHER.

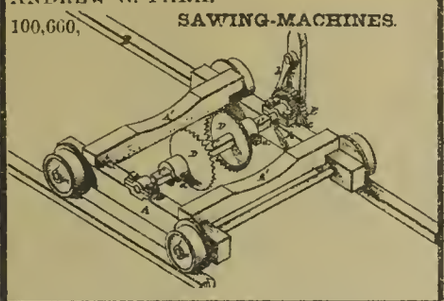


100,658. B. OSBURN. PAPER BOX.

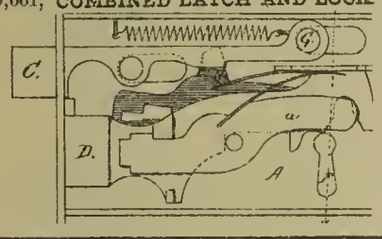


100,659, J. L. OTIS. EMERY-WHEELS.

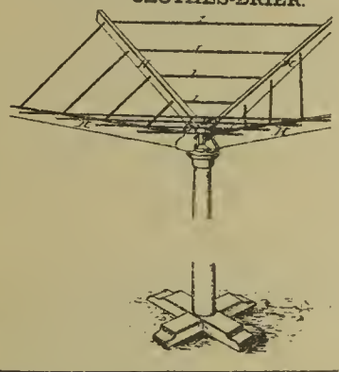
ANDREW G. PARK.
100,660, SAWING-MACHINES.



F. P. PFLEGHAR.
100,661, COMBINED LATCH AND LOCK.

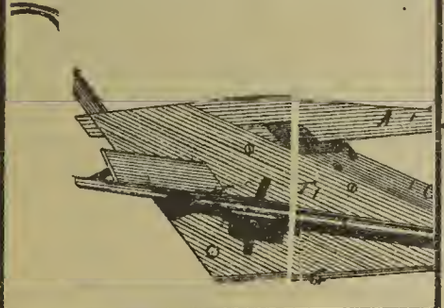


100,662, RUSSELL PHILLIPS.
CLOTHES-DRIER.

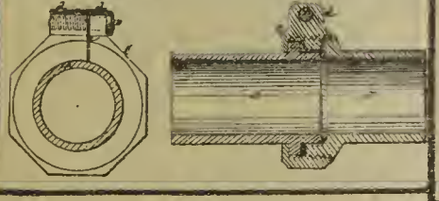


100,663,
LEVI PIERCE. MODE OF SUSPENDING MIRRORS TO FURNITURE.

100,664,
WILLARD PIERCE. DITCHING-MACHINES.

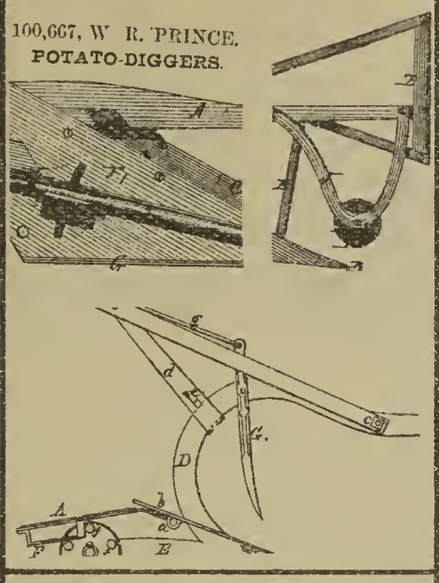


100,665, ROBERT M. POTTER.
UNION-COUPLINGS FOR PIPES.

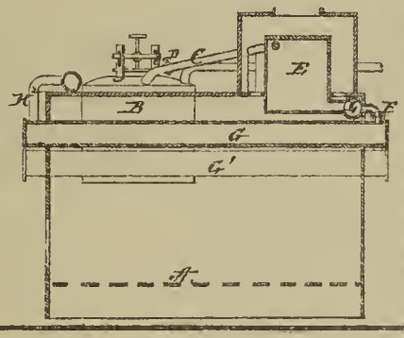


100,666, E. FREEMAN PRENTISS.
TELEGRAPH-POLES.

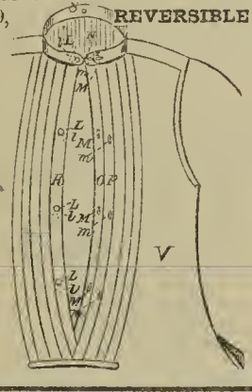
100,667, W. R. PRINCE.
POTATO-DIGGERS.



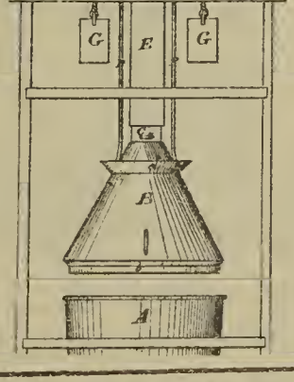
100,668. A. C. RAND.
MANUFACTURE OF ILLUMINATING GAS.



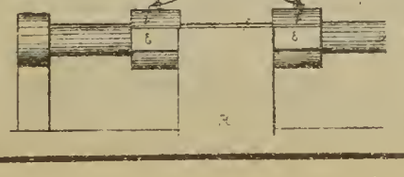
CHARLES O. RICHTER.
100,669, REVERSIBLE SHIRTS.



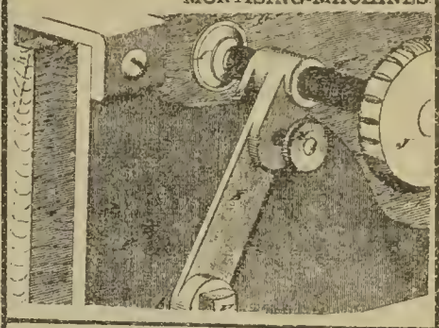
100,670, THOS. E. ROGERS.
DYE-VATS.



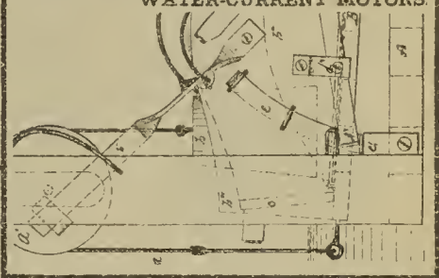
BOZIL S. ROY LUBRICATING 100,671,
THE TRAVERSING-GUIDE IN MACHINES FOR FEEDING CARDING-ENGINES.



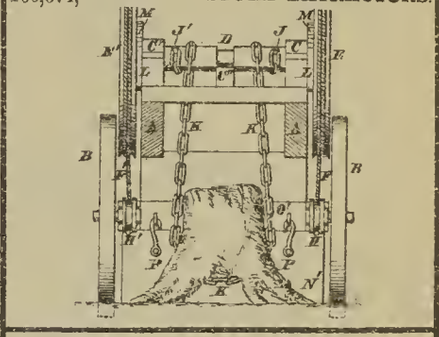
100,672, ANTON SCHMACKERS.
MORTISING-MACHINES.



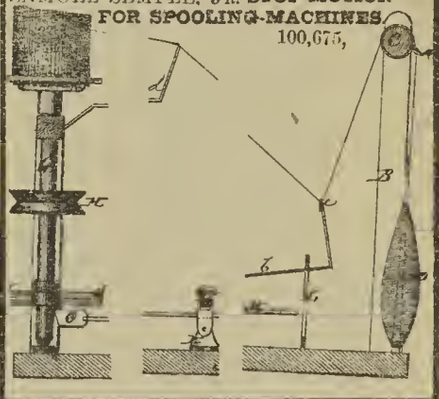
100,673, JOHN Q. A. SCHOONOVER.
WATER-CURRENT MOTORS.



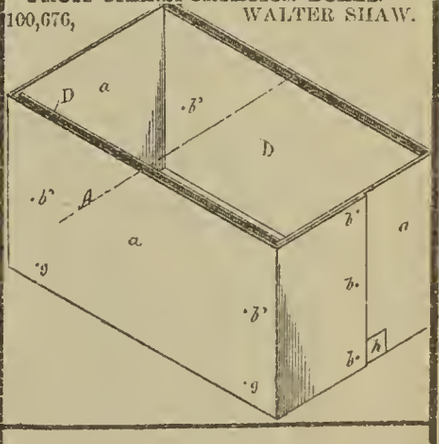
HENRY SCHWARTZ.
100,674, STUMP-EXTRACTORS.



SAMUEL SEMPLE, JR. STOP-MOTION FOR SPOOLING-MACHINES.
100,675,

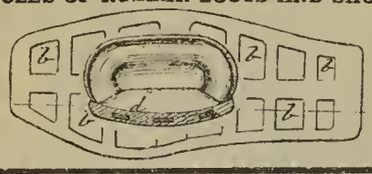


FRUIT TRANSPORTATION BOXES.
100,676, WALTER SHAW.

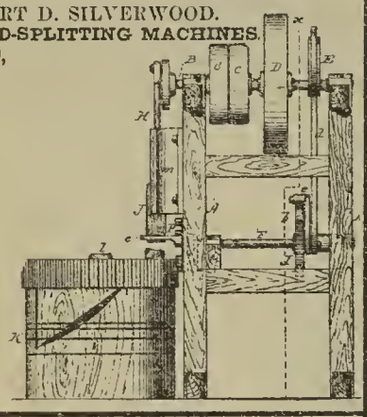


FREDERICK M. SHEPARD.
HEELS OF RUBBER BOOTS AND SHOES.
100,677,

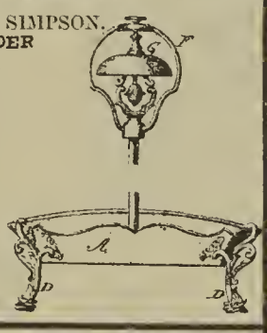
100,678, FREDERICK M. SHEPARD.
SOLES OF RUBBER BOOTS AND SHOES.



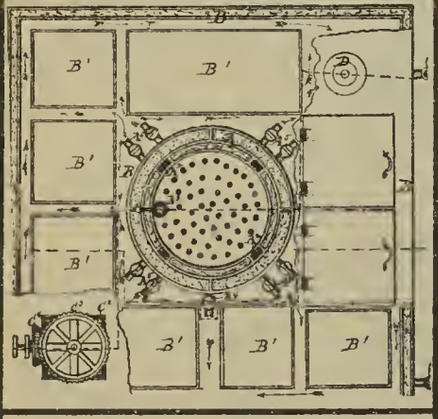
ROBERT D. SILVERWOOD.
WOOD-SPLITTING MACHINES.
100,679,



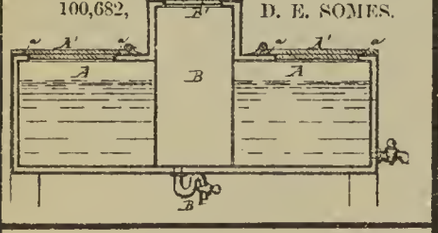
100,680, SAMUEL SIMPSON.
SPOON-HOLDER AND BELL



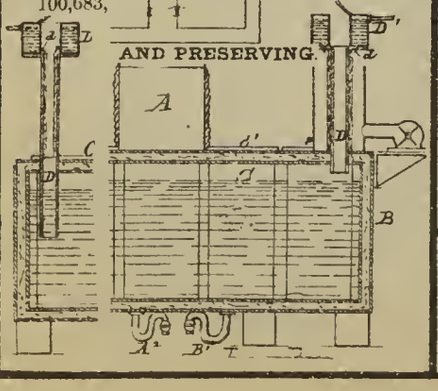
APPARATUS FOR REFRIGERATING
100,681, D. E. SOMES. AND PRESERVING.



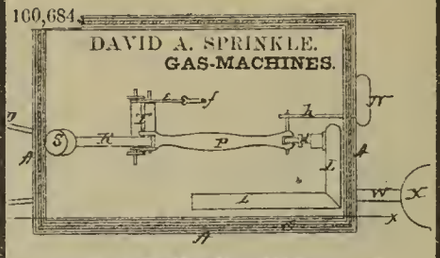
COOLING AND PRESERVING-TANK.
100,682, D. E. SOMES.



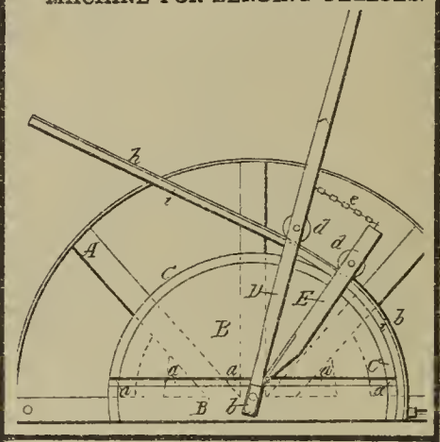
D. E. SOMES. APPARATUS FOR COOLING
100,683,
AND PRESERVING.



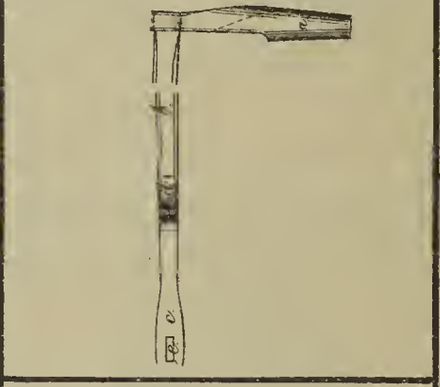
100,684, DAVID A. SPRINKLE.
GAS-MACHINES.



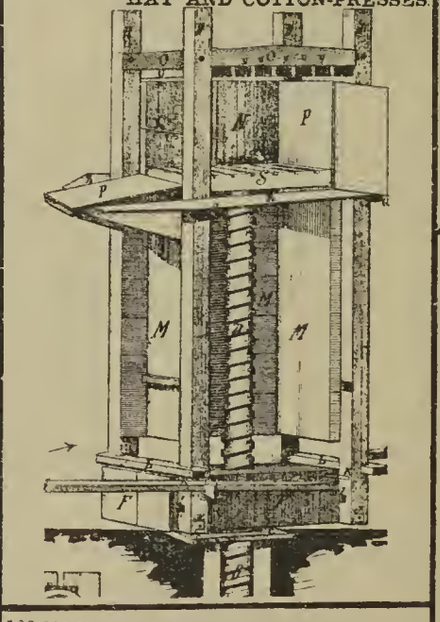
100,685, THEODOR G. SPRINGER.
MACHINE FOR BENDING FELLOES.



100,686, J. M. STAMP.
TOOL FOR LACING BELTS.



100,687, GEORGE W. SWIFT.
HAY AND COTTON-PRESSES.

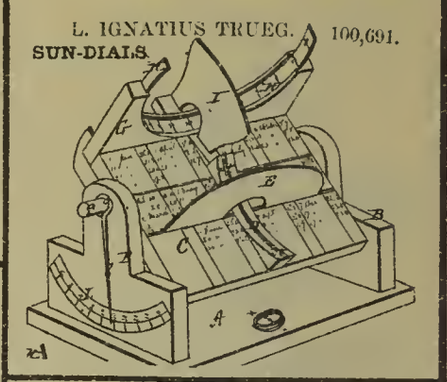


100,688, FRANK C. TEGETTHOFF.
ROOFING COMPOUND.

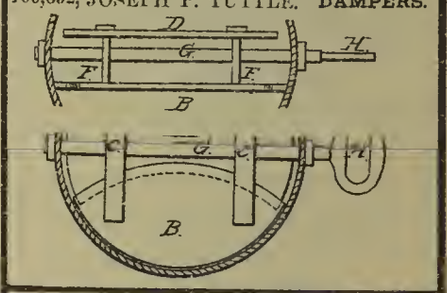
100,689. C. TELLIER.
MANUFACTURE OF ICE, AND COOLING AIR, LIQUIDS, &c.

100,690, H. G. TERWILLIGER.
GROOVING-CHISEL.

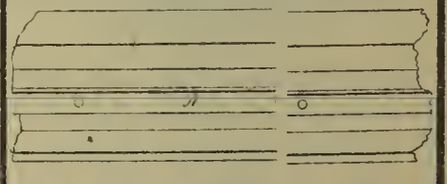
L. IGNATIUS TRUEG. 100,691.
SUN-DIALS.



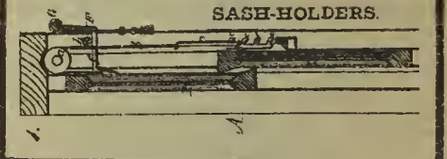
100,692, JOSEPH P. TUTTLE. DAMPERS.



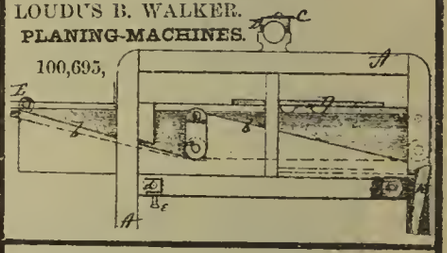
JACOB VALENTINE.
FRANCIS HARRIS, JUN.
CHAUNCY BARNES.
RAILWAY-RAIL
100,693, SPLICE.



A. VAN PATTEN. 100,694,
J. F. KELSEY.
SASH-HOLDERS.



LOUDUS B. WALKER.
PLANING-MACHINES.
100,695,



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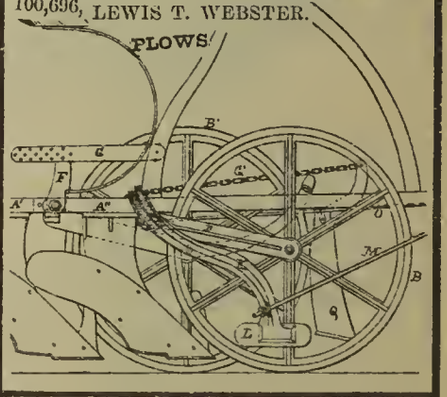
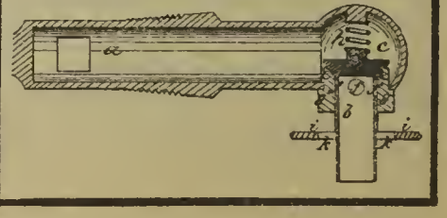
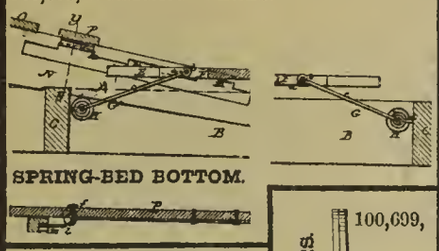
PLOWS.



100,697, ALFRED WEED.
SELF-CLOSING AUGER STOP-COCKS.

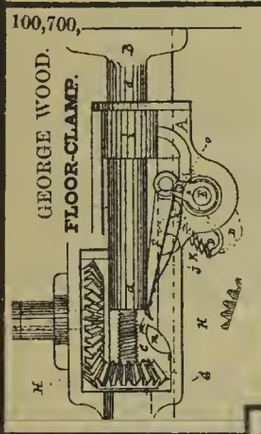


100,698, WILLIAM WELLS.

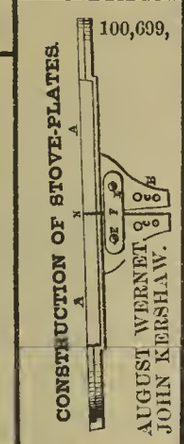


SPRING-BED BOTTOM.

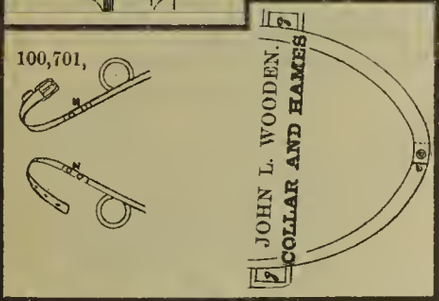
100,700, GEORGE WOOD. FLOOR-CLAMP.



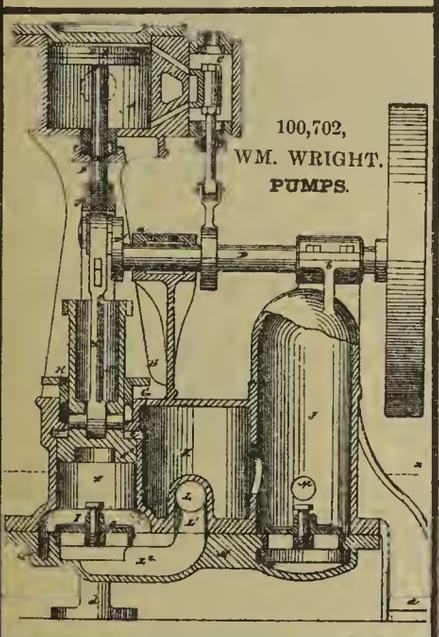
100,699, CONSTRUCTION OF STOVE-PLATES. AUGUST WERNET, JOHN KERSHAW.



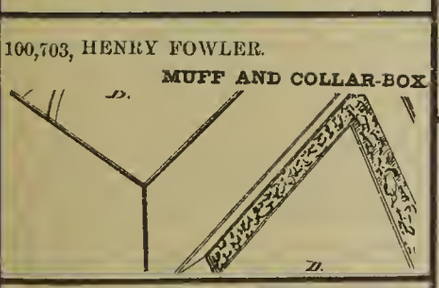
100,701, JOHN L. WOODEN. COLLAR AND HAMES



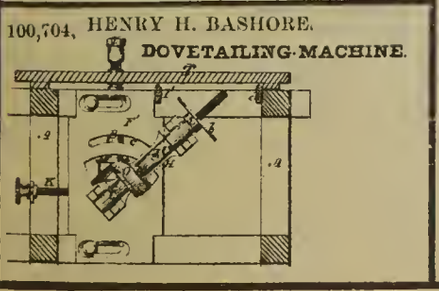
100,702, WM. WRIGHT. PUMPS.



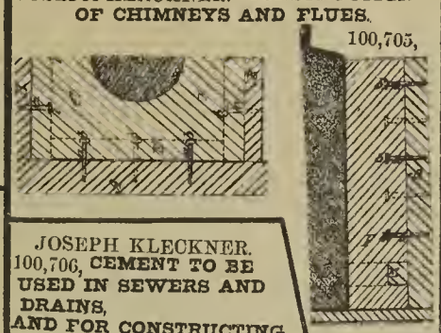
100,703, HENRY FOWLER. MUFF AND COLLAR-BOX



100,704, HENRY H. BASHORE. DOVETAILING-MACHINE.

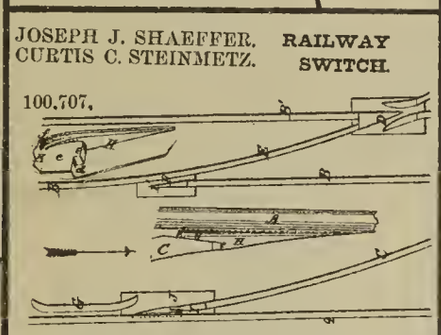


JOSEPH KLECKNER. CONSTRUCTION OF CHIMNEYS AND FLUES. 100,705,

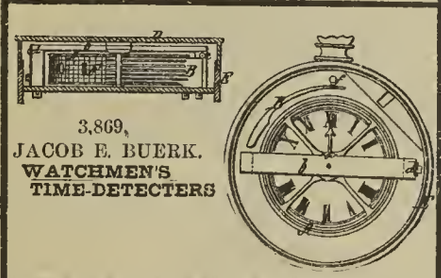


JOSEPH KLECKNER. 100,706, CEMENT TO BE USED IN SEWERS AND DRAINS, AND FOR CONSTRUCTING FLUES AND OTHER PARTS OF BUILDINGS.

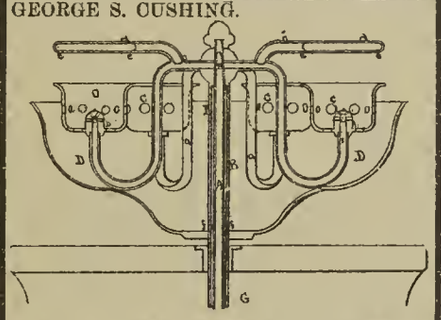
JOSEPH J. SHAEFFER. CURTIS C. STEINMETZ. RAILWAY SWITCH. 100,707,



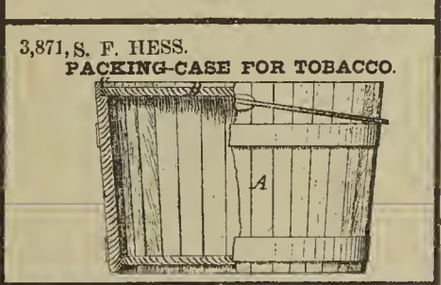
3,869, JACOB E. BUERK. WATCHMEN'S TIME-DETECTERS



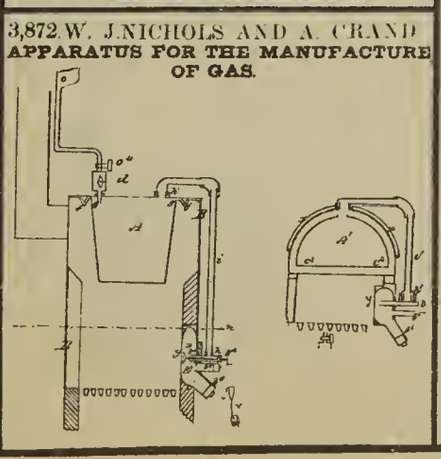
GUSTAVUS D. DOWS. CALVIN DOWS. GEORGE S. CUSHING. 3,870, TUMBLER-WASHER



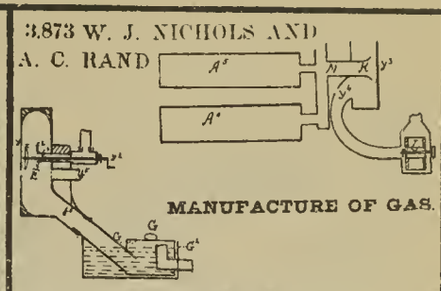
3,871, S. F. HESS. PACKING-CASE FOR TOBACCO.



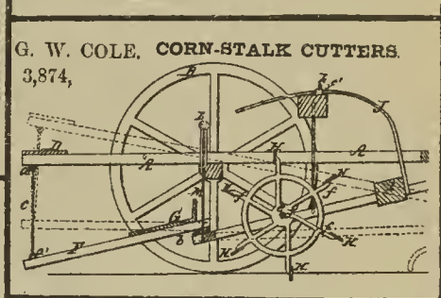
3,872. W. J. NICHOLS AND A. CRAND APPARATUS FOR THE MANUFACTURE OF GAS.



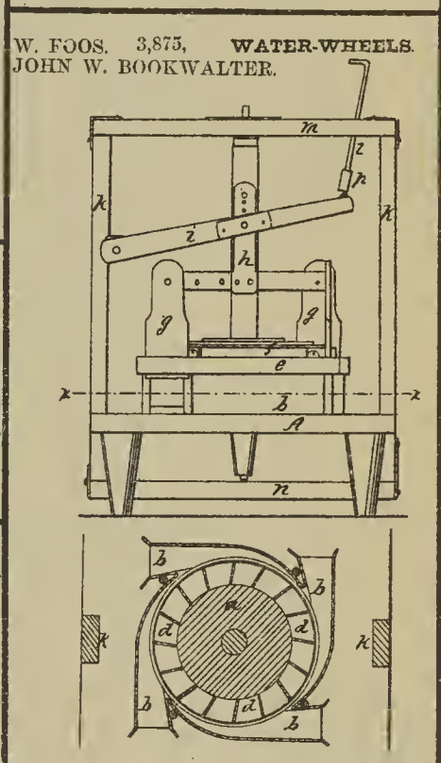
3,873 W. J. NICHOLS AND A. C. RAND MANUFACTURE OF GAS.



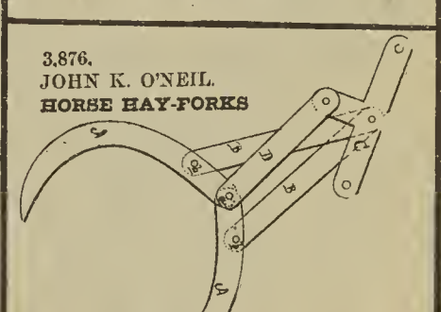
G. W. COLE. CORN-STALK CUTTERS. 3,874,



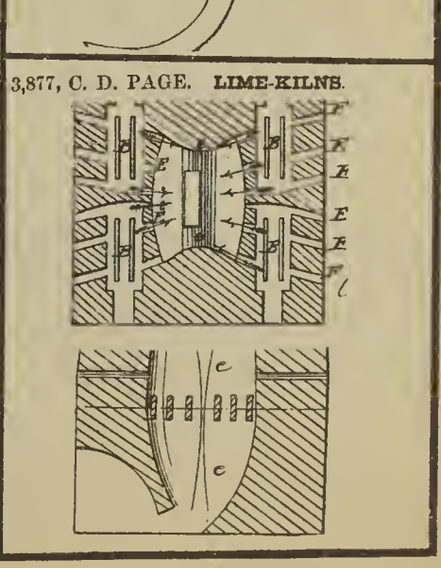
W. FOOS. JOHN W. BOOKWALTER. 3,875, WATER-WHEELS.



3,876. JOHN K. O'NEIL. HORSE HAY-FORKS



3,877, C. D. PAGE. LIME-KILNS.



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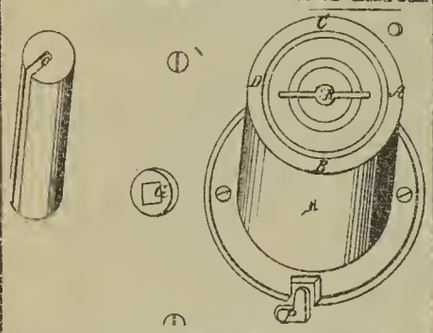
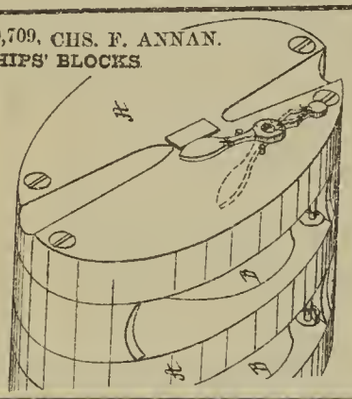
MARCH 15, 1870.

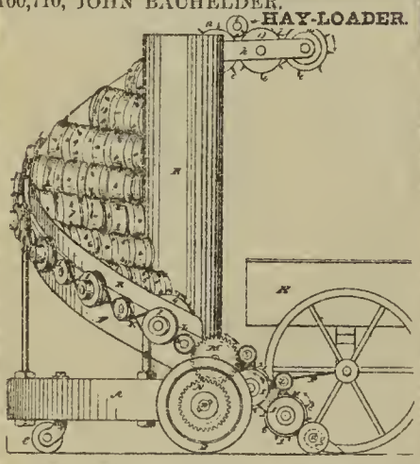
100,708, GEO. B. ALLEN. COMBINED LOCK AND LATCH.



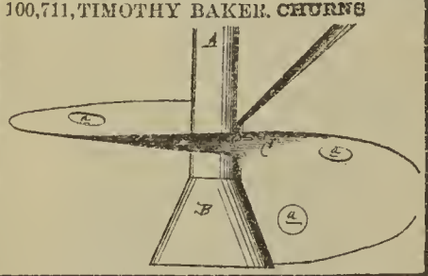
100,709, CHS. F. ANNAN. SHIPS' BLOCKS.



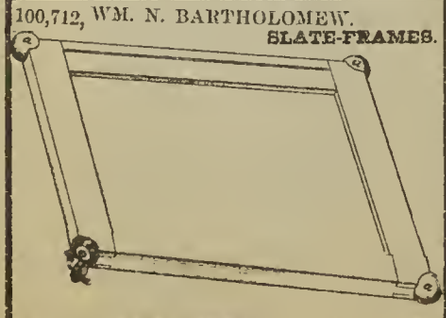
100,710, JOHN BACHELDER. HAY-LOADER.



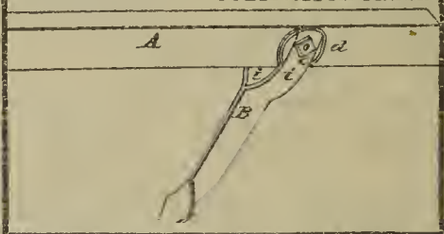
100,711, TIMOTHY BAKER. CHURNS



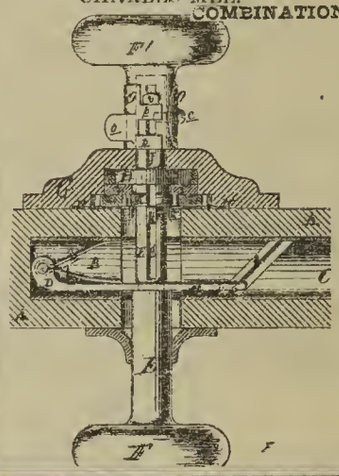
100,712, WM. N. BARTHOLOMEW. SLATE-FRAMES.



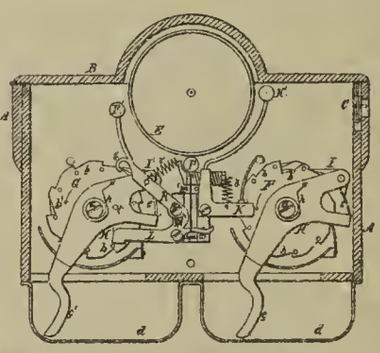
100,713, SANFORD BECKWITH. CULTIVATOR-TEETH.



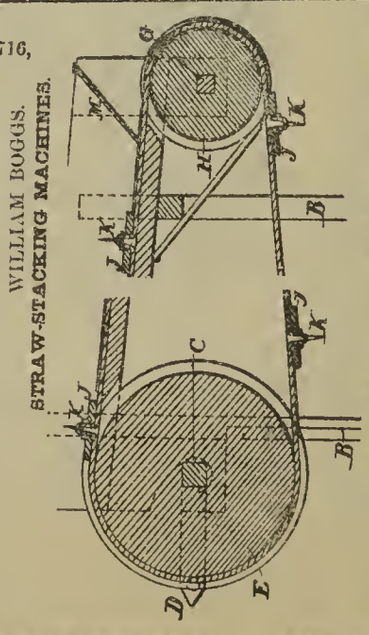
100,714, S. BENTLEY. CHARLES MEE. COMBINATION LOCK.



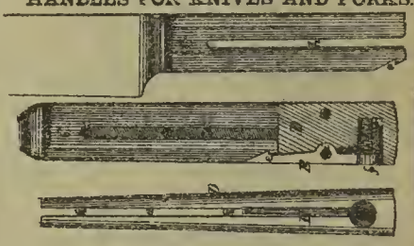
100,715, F. BLACKBURN AND G. W. WOODSIDE. FARE REGISTER.



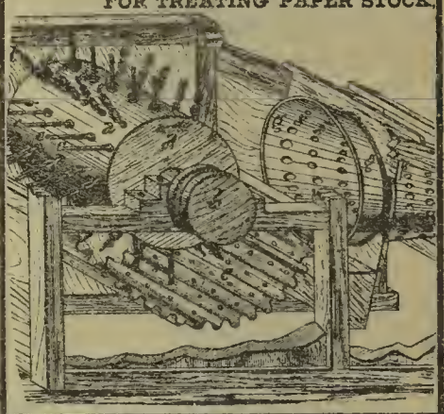
100,716, WILLIAM BOGGS. STRAW-STACKING MACHINES.



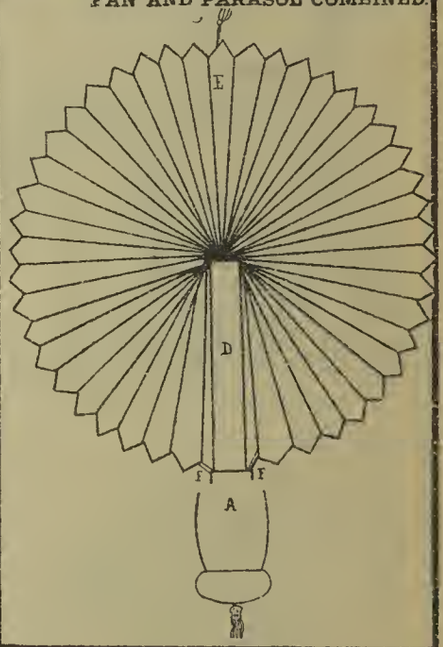
100,717, LEROY BOYNTON. W. F. SWEET. DETACHABLE HANDLES FOR KNIVES AND FORKS.



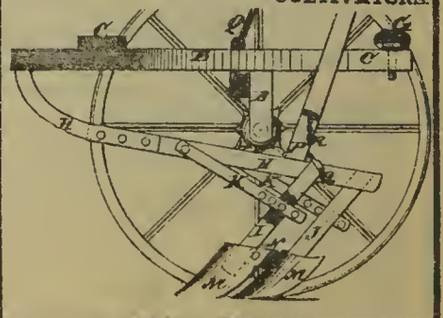
100,718, LEVERETT BRAINARD. RAG-WHIPPER AND DUSTER FOR TREATING PAPER STOCK.



100,719, JOSHUA BROOKS. FAN AND PARASOL COMBINED.



100,720, MARTIN BRUNER, JR. CULTIVATORS.



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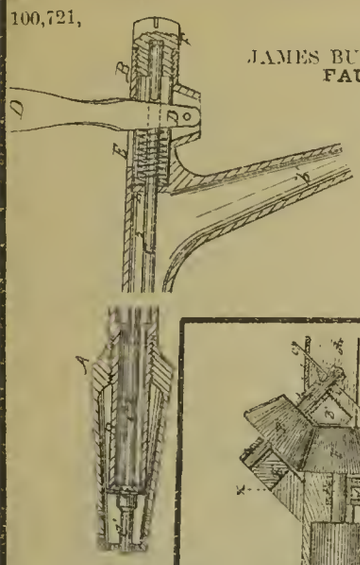
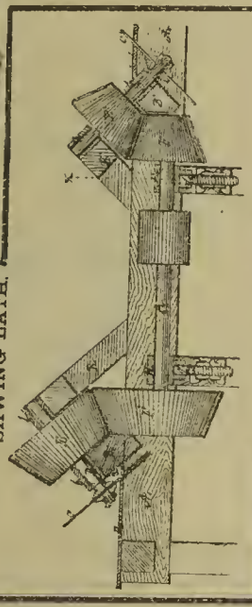
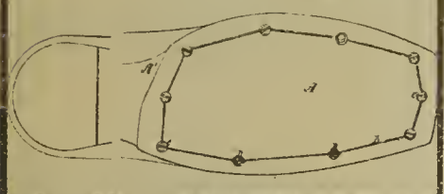


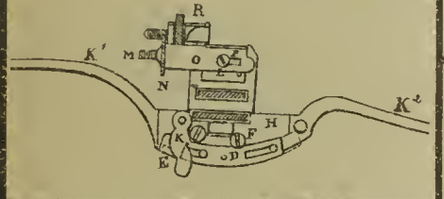
100,722, JAMES H. BUTLER. MACHINE FOR SAWING LATH.



100,723, CHAS. S. CHAFFEE. A. WAHLIG. METHOD OF SECURING SOLES TO BOOTS AND SHOES

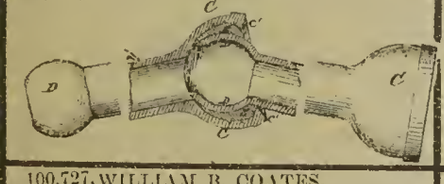


100,724, A. B. CLARK. BOOT AND SHOE-SHAVE.

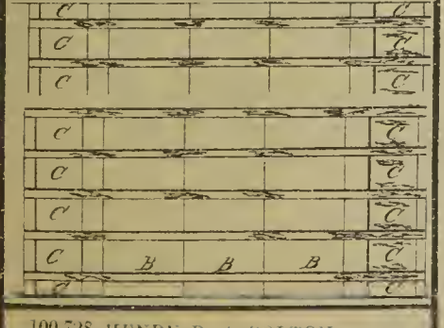


100,725, DECIUS W. CLARK. ENAMEL FOR CLAY GAS-RETORTS, BURNERS, TILES.

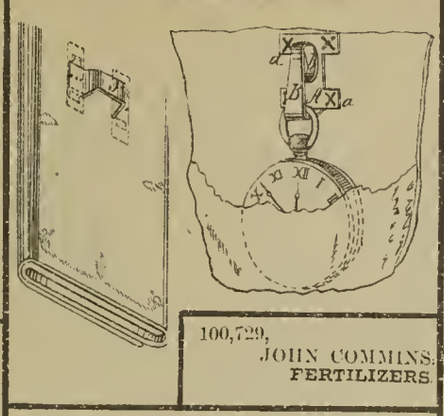
100,726, ROBT. B. COAR. PIPE-JOINTS.



100,727, WILLIAM B. COATES. CONCRETE AND WOODEN PAVEMENTS.



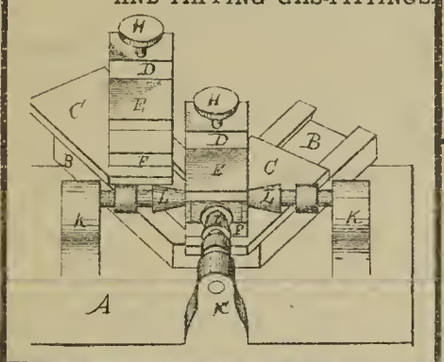
100,728, HENRY R. S. COLTON. SAFETY-ATTACHMENT FOR POCKETS



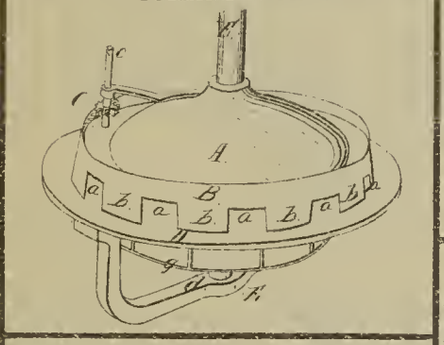
100,729, JOHN COMMINS. FERTILIZERS.

100,730, HIRAM M. CONKLIN. COMPOUND FOR MAKING CONCRETE PAVEMENTS.

100,731, RICHARD T. CRANE. MACHINES FOR DRILLING AND TAPPING GAS-FITTINGS.



100,732, ELEAZER F. CROCKER. TURBINE WATER-WHEELS.



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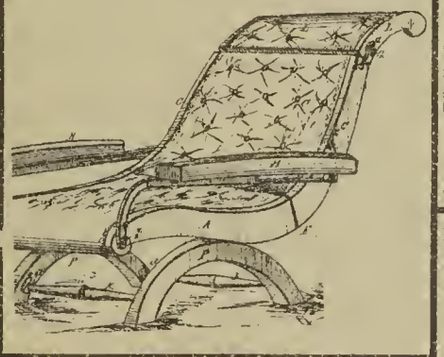
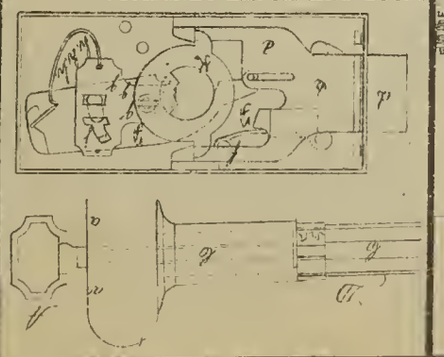
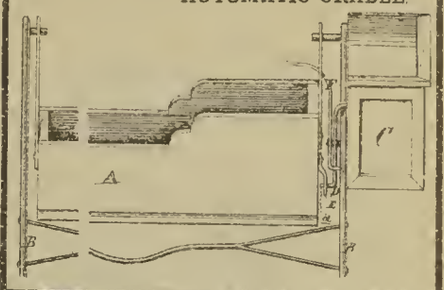


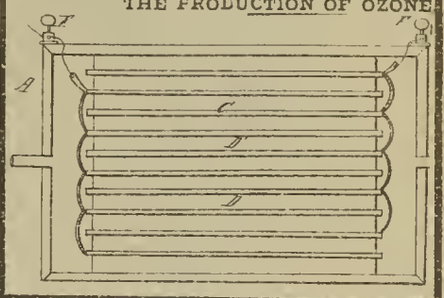
100,734, CHARLES L. DEAN. COMBINED LATCH AND LOCK.



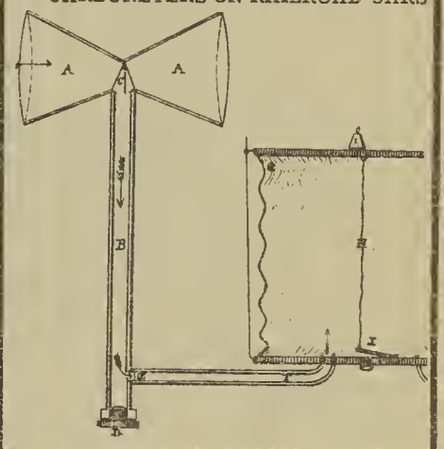
100,735, S. G. DELANO. AUTOMATIC CRADLE.



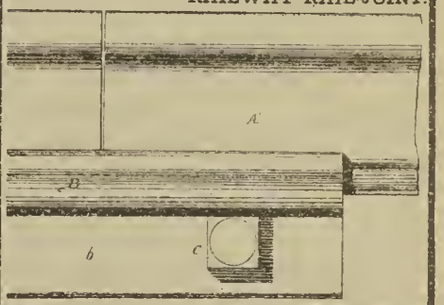
100,736, CLEAVELAND F. DUNDERDALE. APPARATUS FOR THE PRODUCTION OF OZONE.



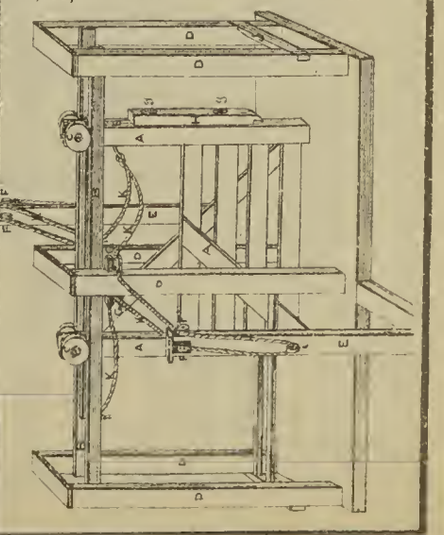
100,737, CLEAVELAND F. DUNDERDALE. APPARATUS FOR FORCING AIR INTO CARBURETERS ON RAILROAD CARS



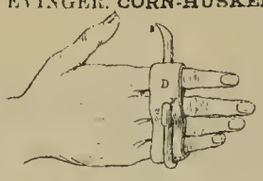
100,738, E. P. DWIGHT. RAILWAY RAIL-JOINT.



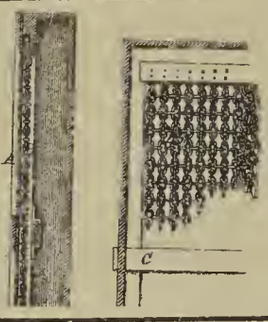
100,739, THOMAS ELLISON. GATES.



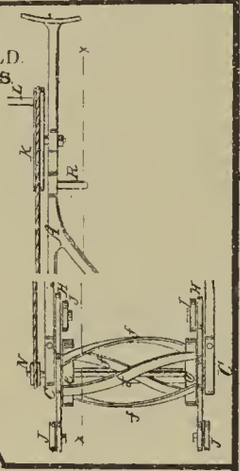
100,740, N. EVINGER. CORN-HUSKERS.



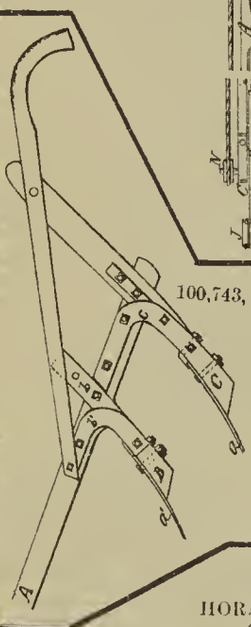
100,741, JOS. M. EWING. BURGLAR-PROOF SAFES



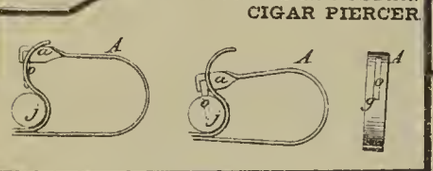
100,742, JOSEPH C. FIELD. LAWN-MOWERS.



100,743, MIRANDA FORT. PLOWS.



100,744, HORACE N. FOSTER. CIGAR PIERCER.



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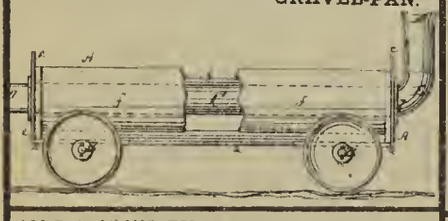
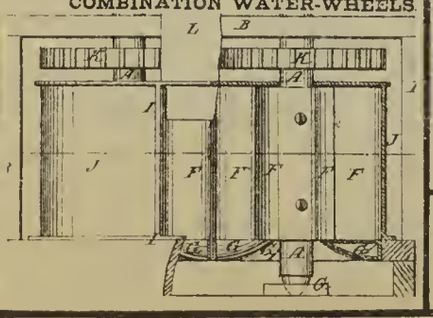
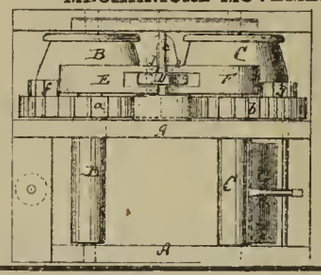


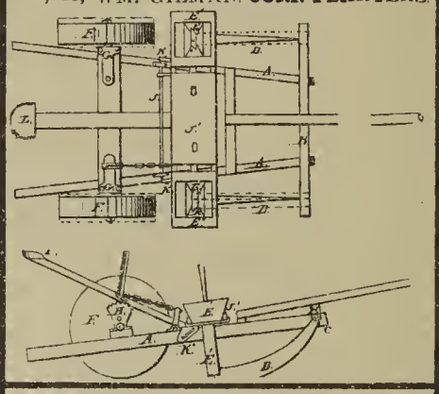
100,746, JOHN FULLER. HERBERT FULLER. COMBINATION WATER-WHEELS.



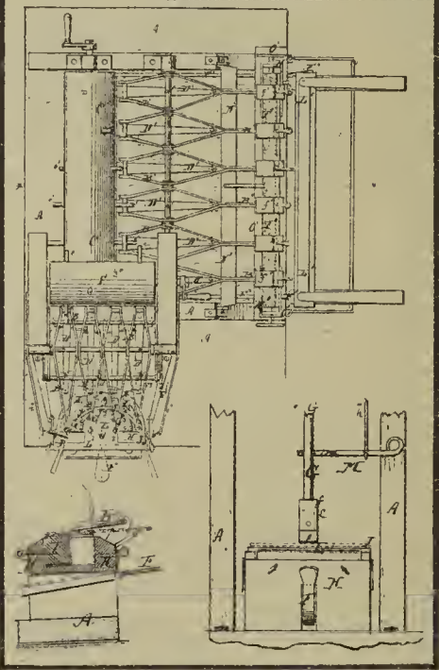
100,747, WILLIAM GARRISON. MECHANICAL MOVEMENTS.



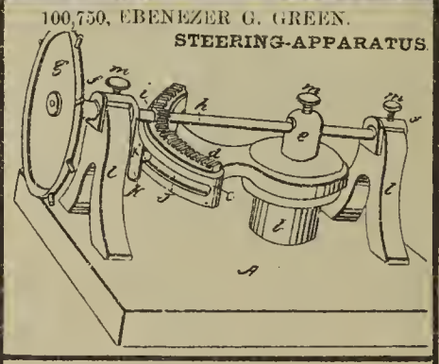
100,748, WM. GILMAN. CORN-PLANTERS.



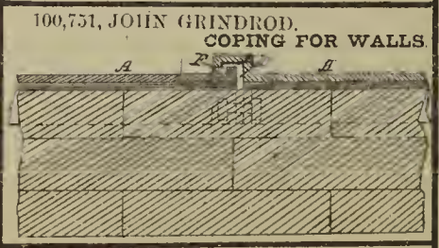
100,749, AMBROSE GIRAUDAT. STAMPING LACE-PAPER.



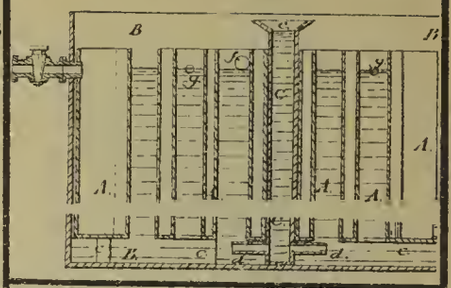
100,750, EBENEZER G. GREEN. STEERING-APPARATUS.



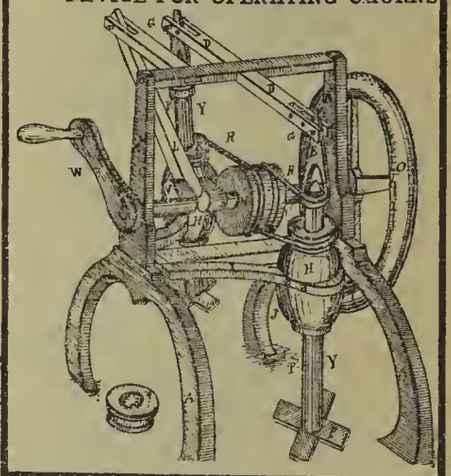
100,751, JOHN GRINDROD. COPING FOR WALLS.



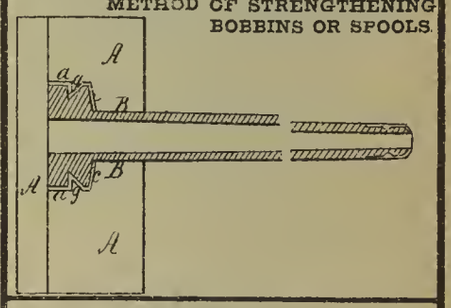
100,752, THEODORE GRÜNDMANN. APPARATUS FOR COOLING BEER AND OTHER LIQUIDS.



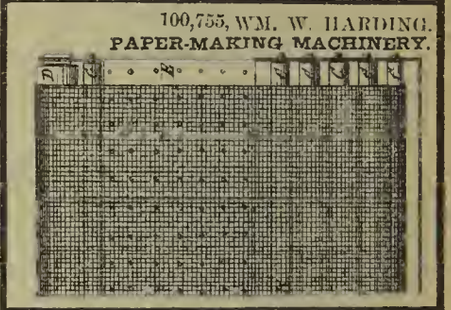
100,753, EDGAR R. HALL. WM. H. TOWN. DEVICE FOR OPERATING CHURNS.



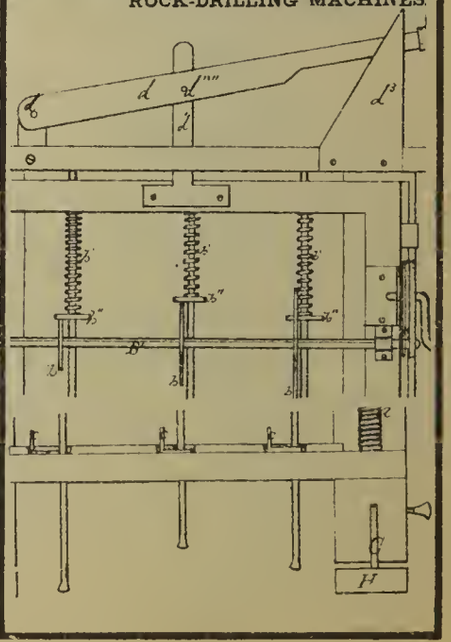
100,754, ALBERT HALLOWELL. METHOD OF STRENGTHENING BOBBINS OR SPOOLS.



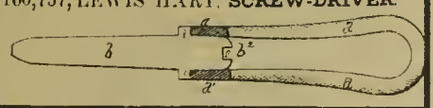
100,755, WM. W. HARDING. PAPER-MAKING MACHINERY.



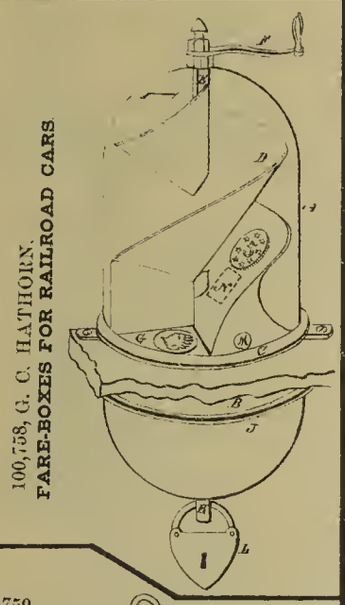
100,756, JACOB HART. ROCK-DRILLING MACHINES.



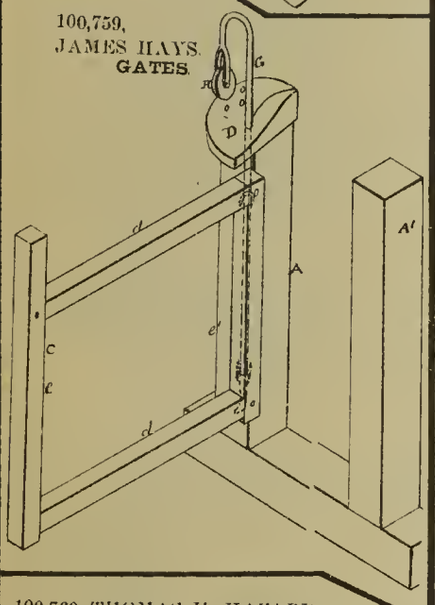
100,757, LEWIS HART. **SCREW-DRIVER.**



100,758, G. C. HATHORN. **FARE-BOXES FOR RAILROAD CARS.**

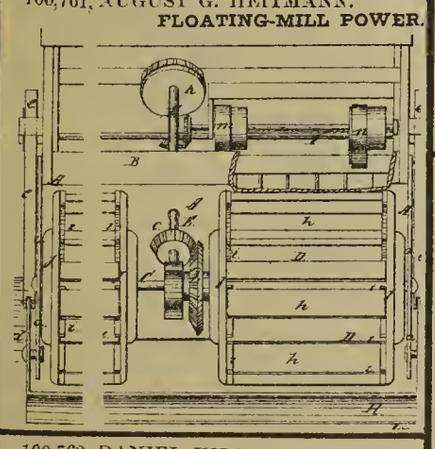


100,759, JAMES HAYS. **GATES.**

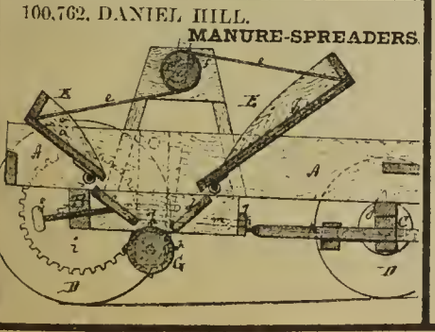


100,760. THOMAS H. HAZARD. **MEDICAL COMPOUND FROM CHLORAL.**

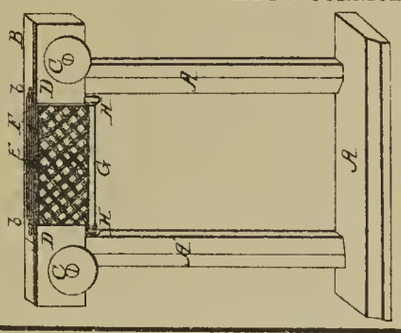
100,761, AUGUST G. HEITMANN. **FLOATING-MILL POWER.**



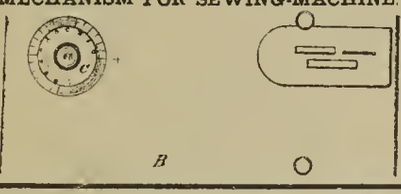
100,762, DANIEL HILL. **MANURE-SPREADERS.**



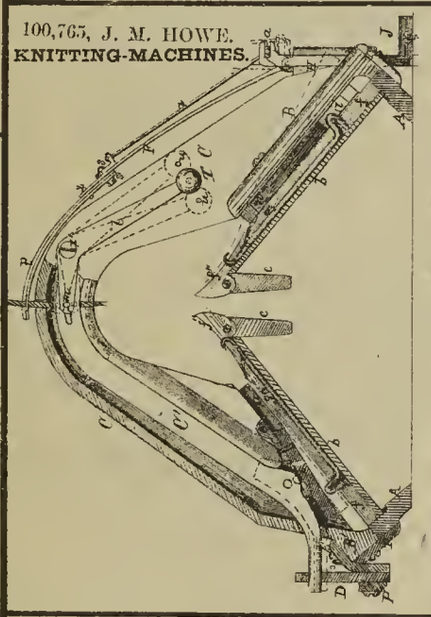
100,763, ROBERT N. HOFFMAN. **WINDOW-CORNICE.**



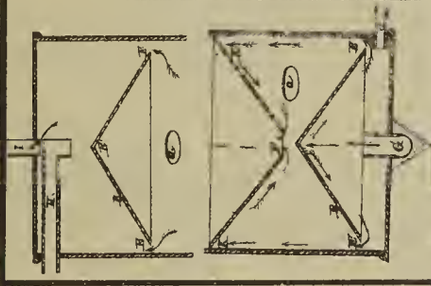
100,764, JAMES A. HOUSE. **FEEDING-MECHANISM FOR SEWING-MACHINE.**



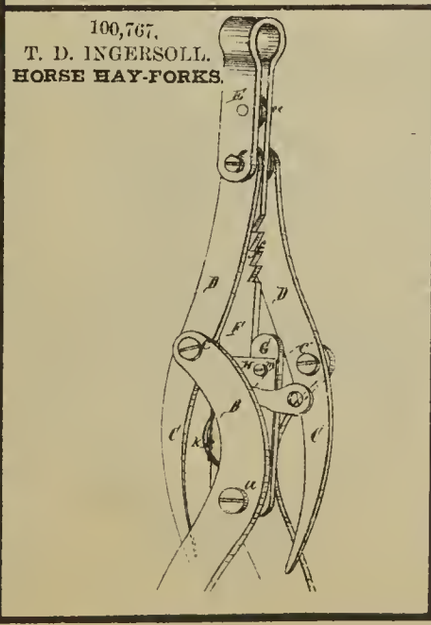
100,765, J. M. HOWE. **KNITTING-MACHINES.**



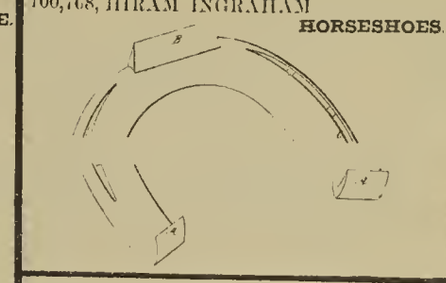
100,766, JOHN HUNTINGTON. **LIME-EXTRACTING HEATER.**



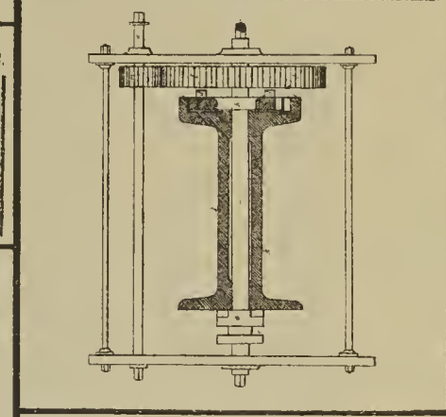
100,767, T. D. INGERSOLL. **HORSE HAY-FORKS.**



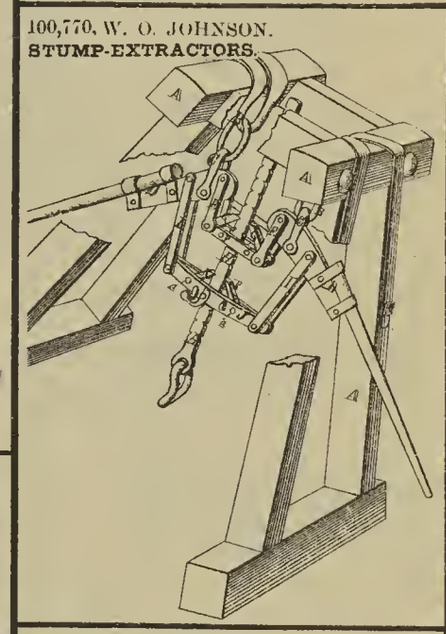
100,768, HIRAM INGRAHAM. **HORSESHOES.**



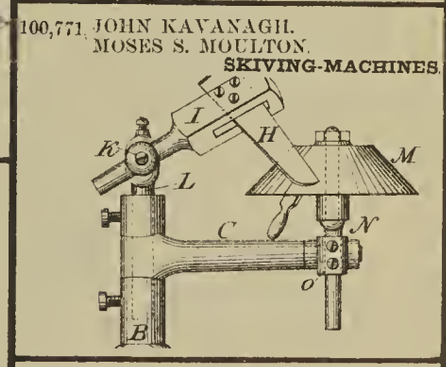
100,769, JOSEPH JEWSBURY. **HOISTING-MACHINES.**



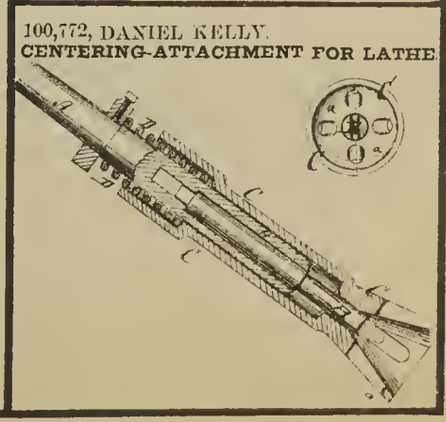
100,770, W. O. JOHNSON. **STUMP-EXTRACTORS.**



100,771, JOHN KAVANAGH, MOSES S. MOULTON. **SKIVING-MACHINES.**

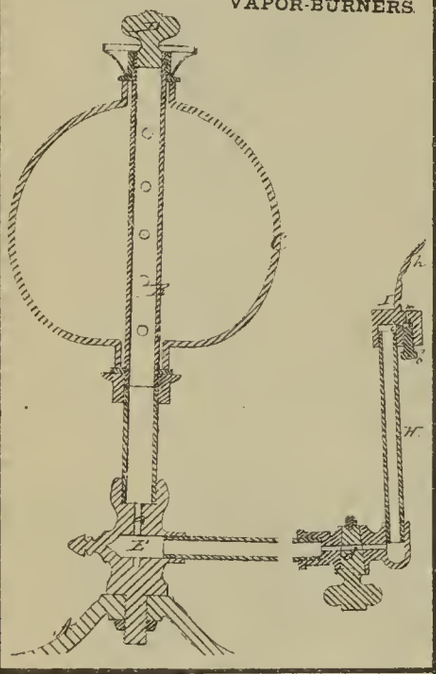


100,772, DANIEL KELLY. **CENTERING-ATTACHMENT FOR LATHE.**

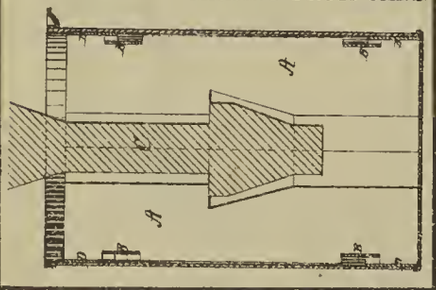


100,773, WM. H. KELLY. APPARATUS FOR LIGHTING GAS BY ELECTRICITY.

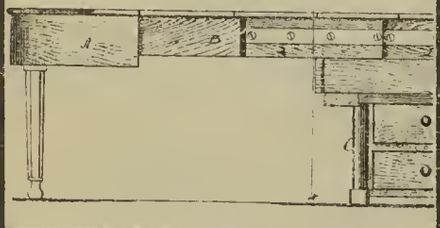
100,774, ISAAC KLING. VAPOR-BURNERS.



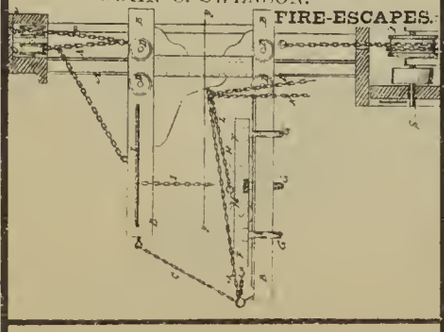
100,775, ISAAC KLING. MACHINE FOR MAKING FRUIT-CANS.



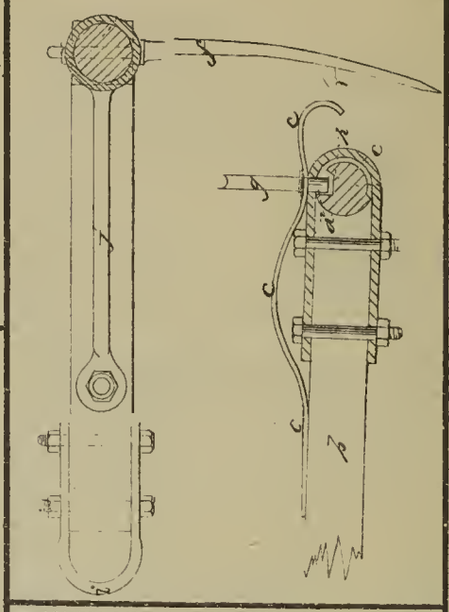
100,776, CHARLES PHILIPP LENZ. EXTENSION TABLE.



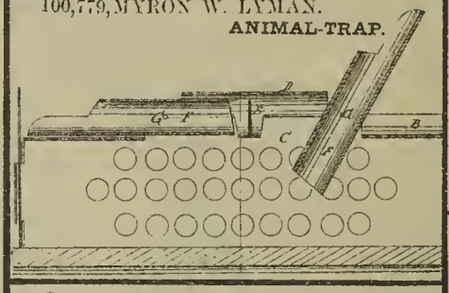
100,777, MICHEL LEWIS. JOHN C. SWENSON. FIRE-ESCAPES.



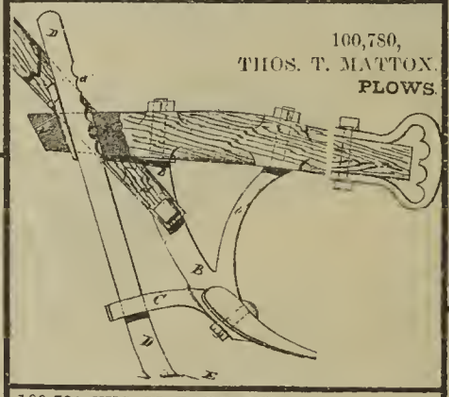
100,778, THOMAS F. LONGAKER. MACHINE FOR CLEANING STABLES.



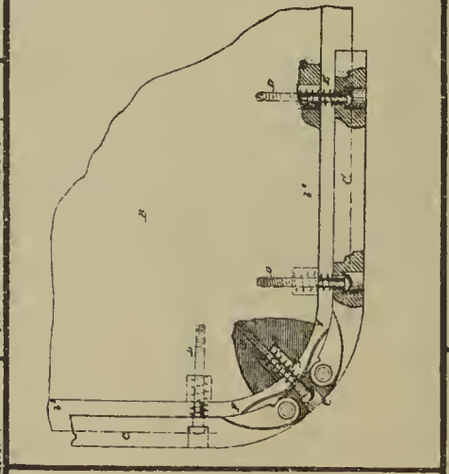
100,779, MYRON W. LYMAN. ANIMAL-TRAP.



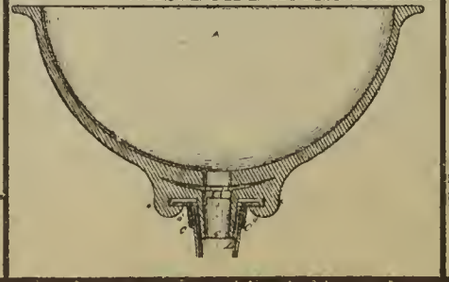
100,780, THOS. T. MATTON. PLOWS.



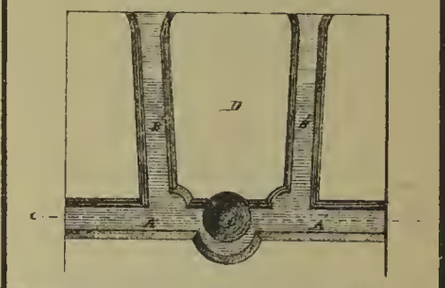
100,781, WM. McFARLAND. BURGLAR-PROOF SAFES.



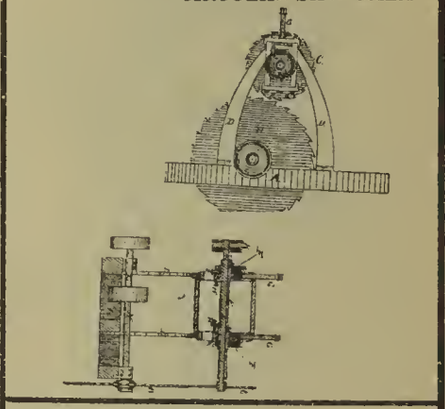
100,782, GEO. C. MILLER. JOS. H. COATES. BASINS WITH WASTE-PIPE ATTACHMENTS.



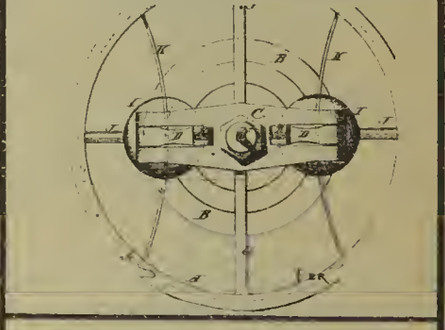
100,783, R. R. MILLER. DIE FOR FORMING PERCH-PLATES.



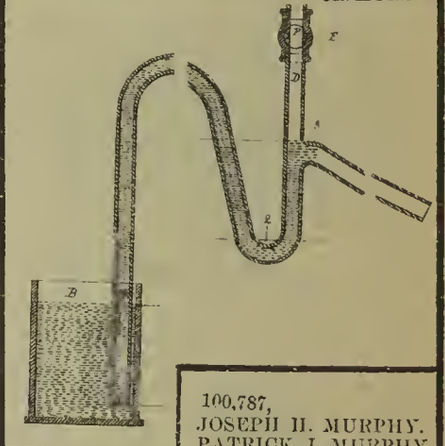
100,784, JNO. MILLS. A. G. WALDO. CIRCULAR-SAW MILL.



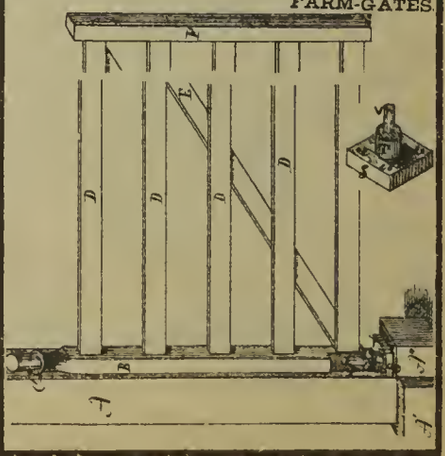
100,785, THOS. MOORE. GOVERNOR FOR STEAM-ENGINES.



100,786, SOLOMON S. MOYER. SIPHONS.

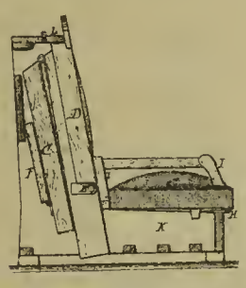


100,787, JOSEPH H. MURPHY. PATRICK J. MURPHY. FARM-GATES.

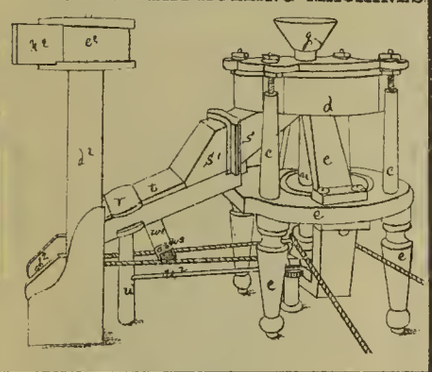


100,788, JAMES MYERS, JR. **MODE OF PREVENTING THE STEALING OF BONDS**

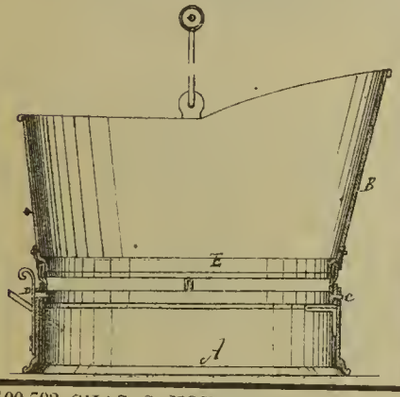
100,789, JOHN NEEDHAM. **SOFA BED**



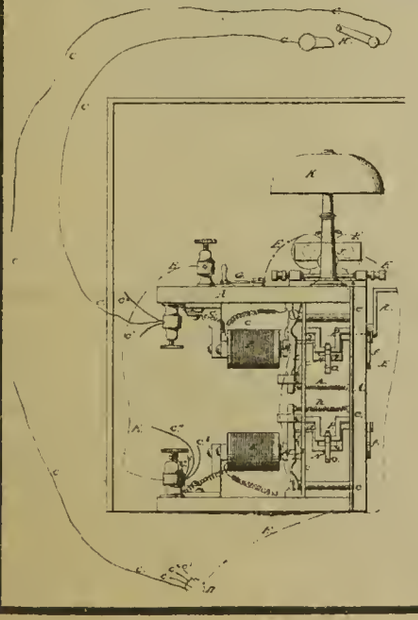
100,790 THOMAS NELSON. **BUCKWHEAT-HULLING MACHINES**



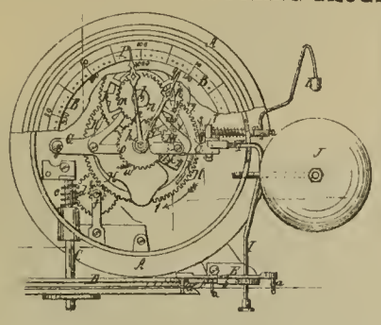
100,791, M. S. NICHOLS. REUBEN WEAVER. **SCREEN COAL-HOD**



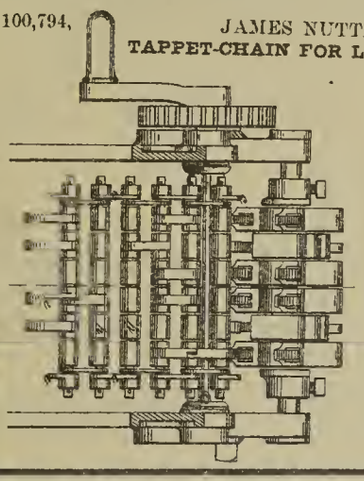
100,792, CHAS. S. NOE. **HOTEL AND BURGLAR-ALARM**



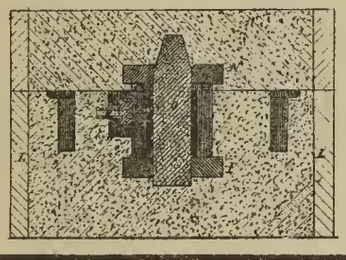
100,793, RICHARD H. NORRIS. **SPOOLING-GAUGE**



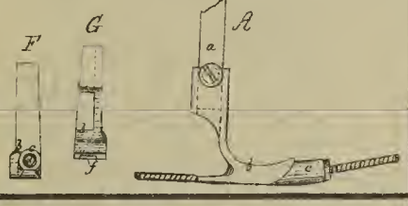
100,794, JAMES NUTTALL. **TAPPET-CHAIN FOR LOOM**



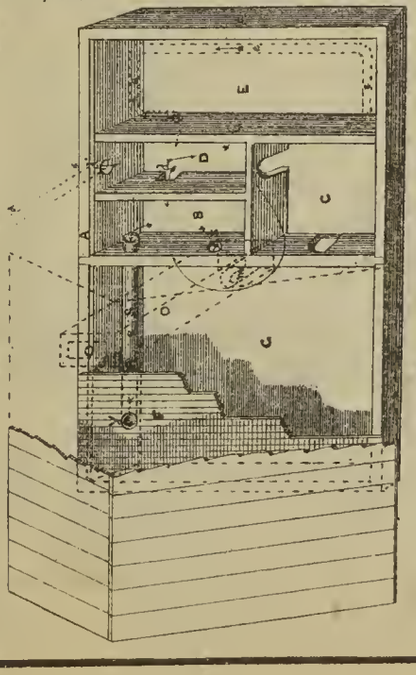
100,795, JOHN PATTERSON. **COAL-CAR AND TRUCK-WHEELS**



100,796, WILLIAM W. PETTEE. **PRESSER-FOOT FOR SEWING-MACHINE**



100,797, W. E. PHELPS. **VENTILATOR**



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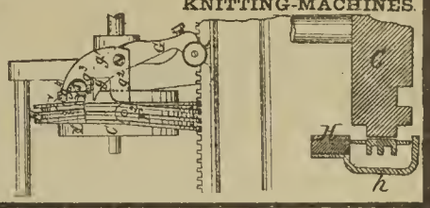
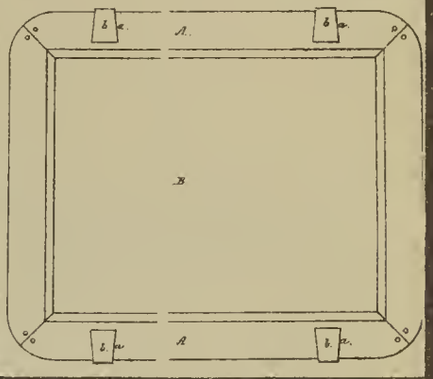
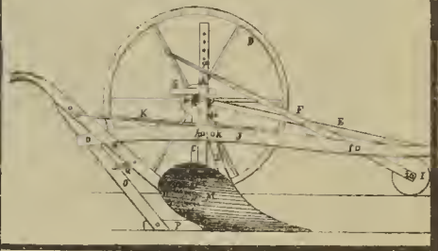


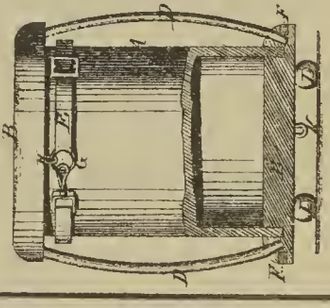
100,799, GEORGE EDWIN POOR. **WRITING-SLATES**



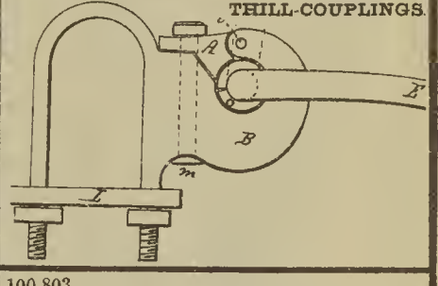
100,800, A. E. PORTER. A. L. PORTER. **RIDING-ATTACHMENT FOR PLOWS**



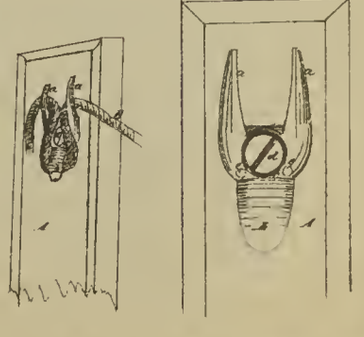
100,801, HENRY T. PRATT. **LIFE-PRESERVING STOOLS**



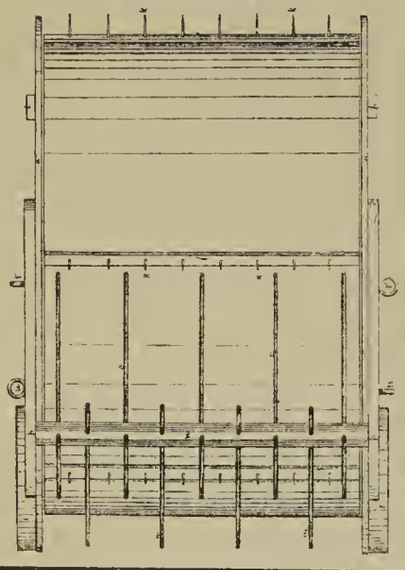
100,802, GEORGE W. PRICE. **THILL-COUPLINGS**



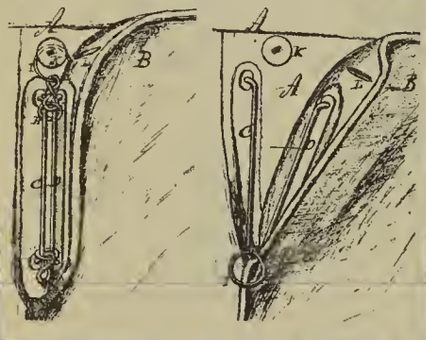
100,803, JNO. C. RANKIN. **CLOTHES-LINE HOLDER**



100,804 GEO. H. REISTER.
HAY-RAKERS AND LOADERS.

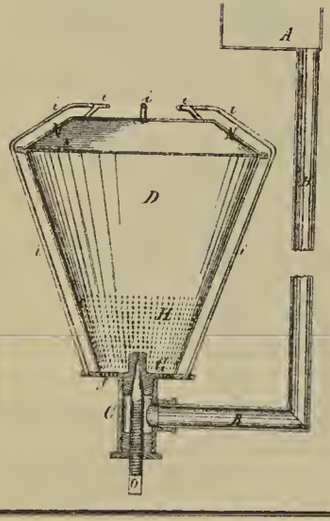


100,805, FRED. L. ROELL.
SAFETY-ATTACHMENTS FOR POCKETS.

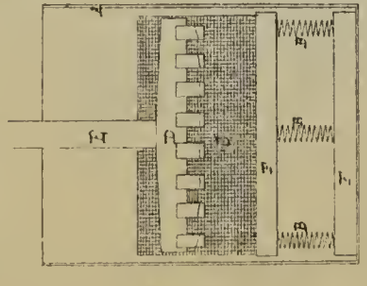


100,806, JOHN ROOT. **PAPER BOX.**

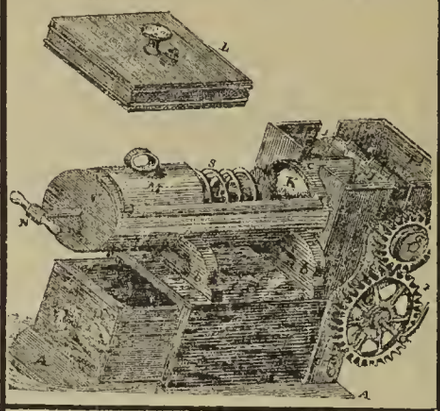
100,807, HERRMAN S. SARÓNI.
FOR COOKING OR HEATING.



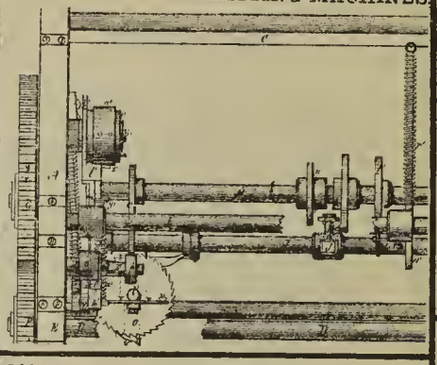
100,808, E. B. SCATTERGOOD.
WASHING-MACHINE.



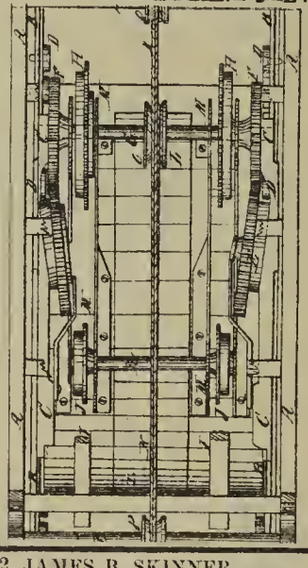
100,809, LEONHARD SCHMIDT. **GRATER**



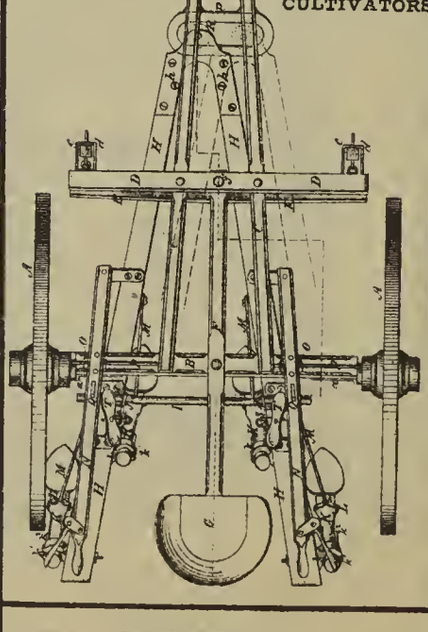
100,810, HENRY B. SCUDDER.
KNITTING-MACHINES.



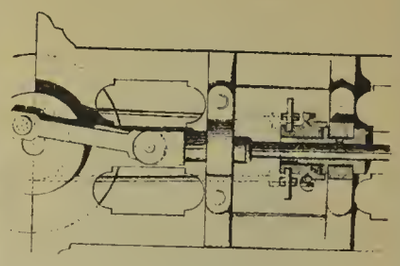
100,811, THOS. B. SIMONTON.
INCLINE-PLANE ELEVATOR.



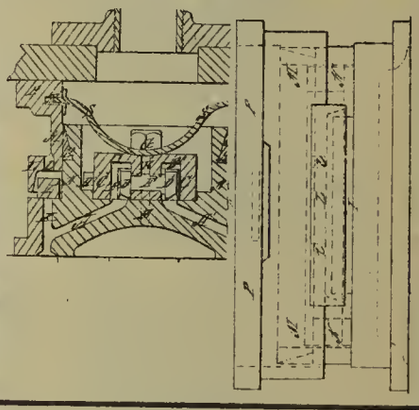
100,812, JAMES B. SKINNER.
CULTIVATORS.



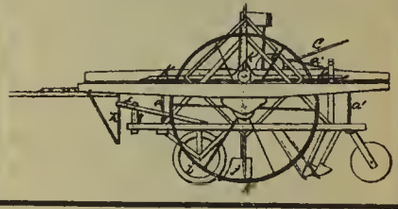
100,813. JAMES SKIPP.
MORTISING MACHINE.



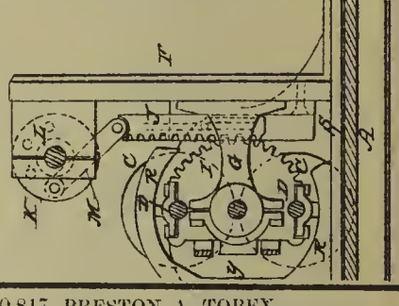
100,814, ANDREW J. STEVENS.
STEAM-ENGINE SLIDE-VALVES.



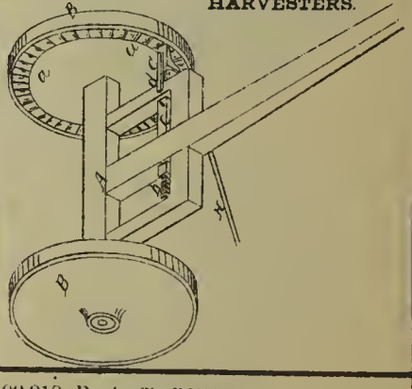
100,815, WILLIAM STIRK.
COMBINED CORN-MARKER, PLANTER, AND CULTIVATOR.



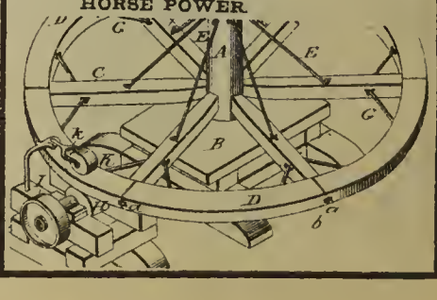
100,816, JAMES SWAN. **MACHINE FOR BENDING THE LIPS OF AUGER-BITS.**



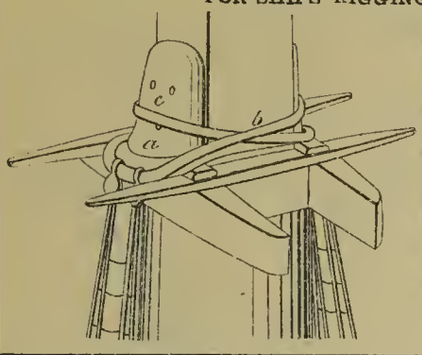
100,817. PRESTON A. TOBEY.
HARVESTERS.



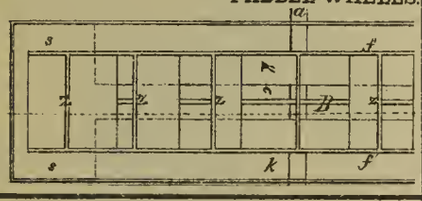
100,818. P. A. TOBEY.
HORSE POWER.



100,819, HENRY TOWNSEND.
CHEEK-PIECES AND SHROUD-YOKES FOR SHIPS' RIGGING.

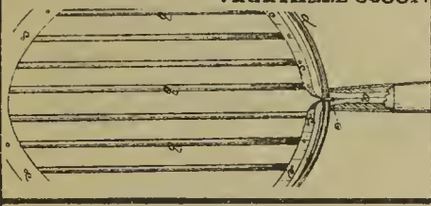


100,820, BENJAMIN W. TUCKER.
PADDLE-WHEELS.

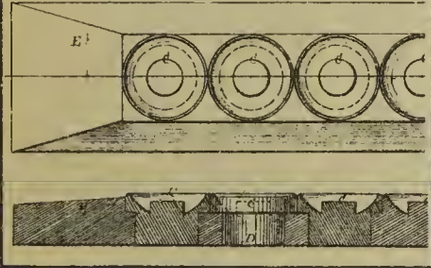


100,821, H. P. TUTTLE.
HAND INDICATOR FOR SHOWING THE COURSE OF VESSELS.

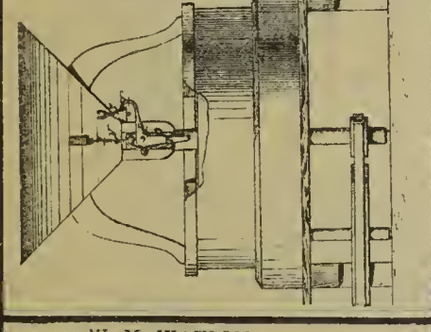
100,822, JOHN F. UNGLISH.
VEGETABLE-SCOOP.



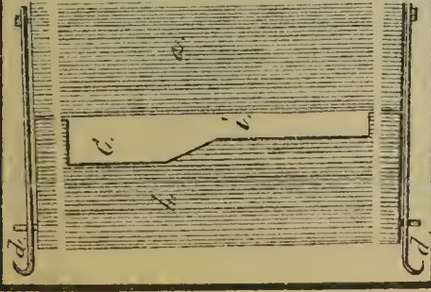
100,823, SAMUEL VANSTONE.
DIE FOR MAKING CLINCH-RINGS.



100,824, E. H. VINING **GRINDING-MILLS.**



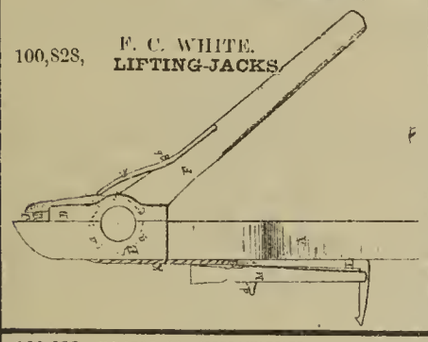
100,825, W. M. WATSON.
DIE OR FORMER FOR MAKING DOUBLE-SHINNED MOLD-BOARD BLANKS FOR PLOWS.



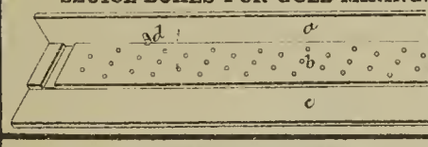
100,826, ALBERT S. WELLS.
LADLES FOR POURING METALS.

100,827, GEO. WHITBECK. **HORSE-POKES.**

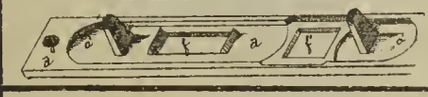
100,828, F. C. WHITE.
LIFTING-JACKS.



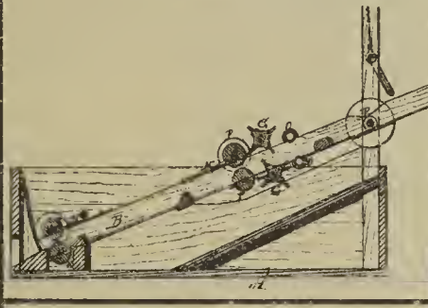
100,829, JOHN H. WHITNEY.
SLUICE-BOXES FOR GOLD-MINING.



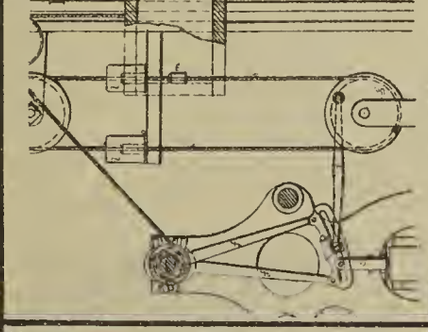
100,830, JOSEPH WHITTINGHAM.
REVERSIBLE KNOB-LATCHES.



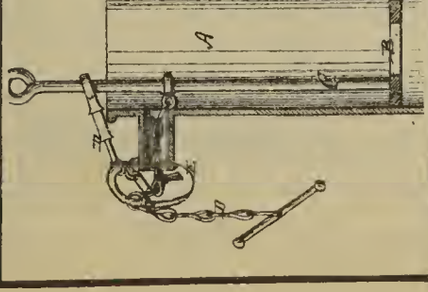
100,831, STANLEY E. WORRELL.
APPARATUS FOR WASHING AND ELEVATING LUMBER.



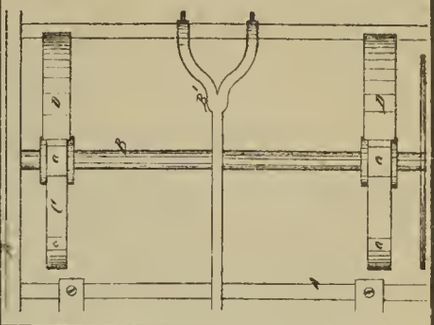
100,832, MARTIN L. WYMAN. **ELEVATOR.**



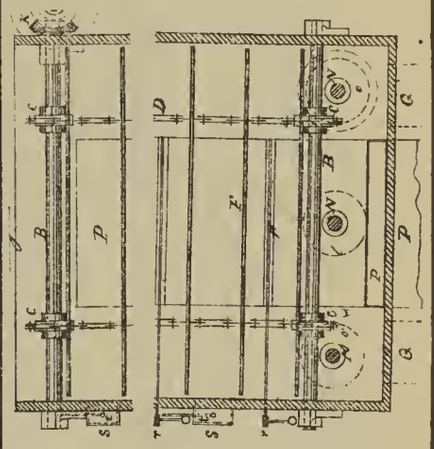
100,833, A. G. ZIESING.
LOCKS FOR SHIPS' PUMPS.



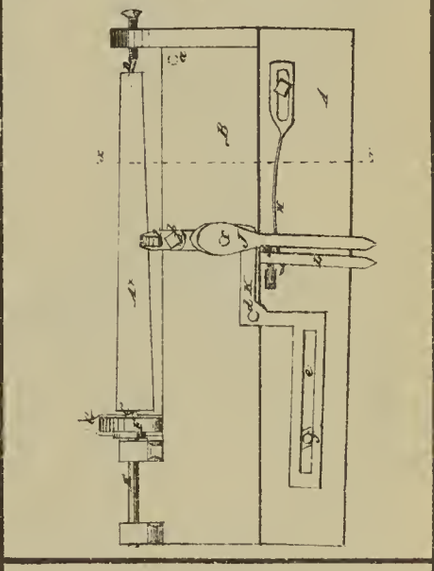
100,834, JOHN R. ADAMS.
TRACK-LAYING MACHINE.



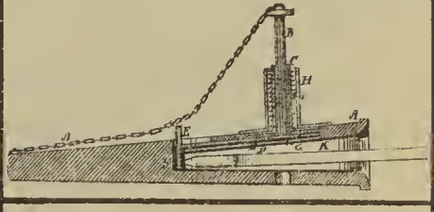
100,835 CHARLES ALDEN. **APPARATUS FOR DRYING AND EVAPORATING.**



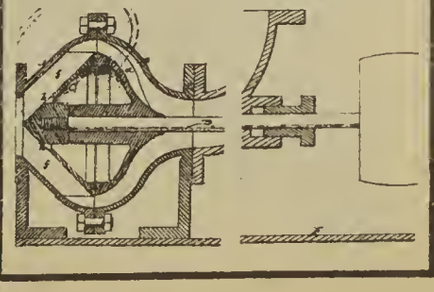
100,836, GEO. F. ALMY. **SPOKE-LATHES.**



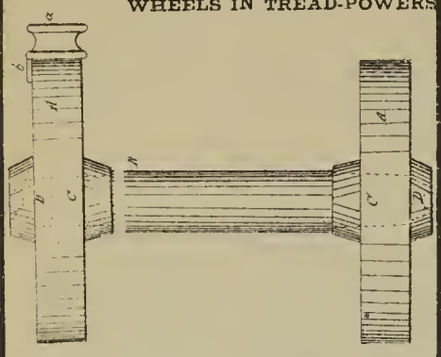
100,837, SAML. J. ANDERSON.
RAILWAY-CAR COUPLING.



100,838, WM. D. ANDREWS.
CENTRIFUGAL PUMPS.



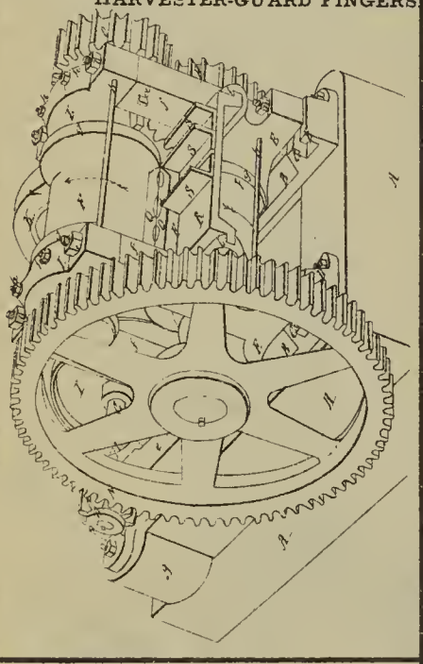
100,875 STEPHEN D. ELY.
MODE OF LUBRICATING THE WHEELS IN TREAD-POWERS.



100,876. ALONZO FARRAR.
PROCESS OF TREATING ACID RESIDUUM FROM OIL-REFINERIES.

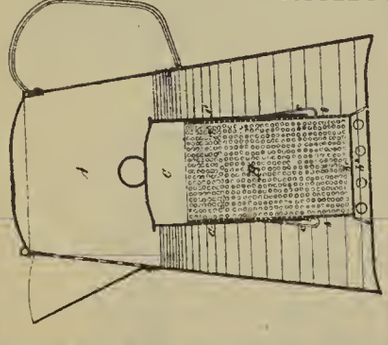
100,877, ALONZO FARRAR.
COMPOSITION, TO BE USED FOR PRINTING OR PAINTING ON SURFACES.

100,878, JEROME FASSLER.
MACHINE FOR MANUFACTURING HARVESTER-GUARD FINGERS.



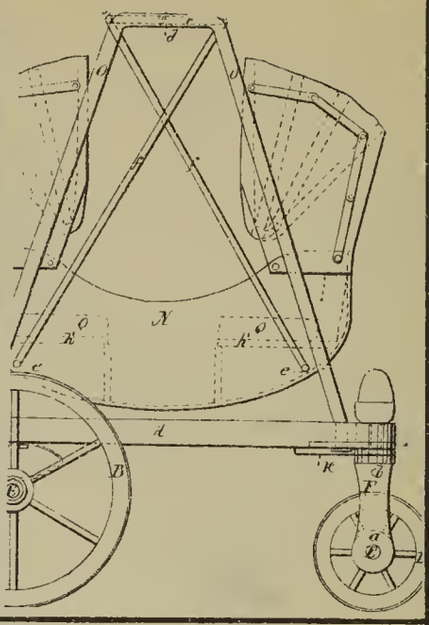
100,879.
W. B. FIELD.
BURROUGHS BEACH
NEEDLE-CASES.

100,880, JAMES F. FITCH.
B. G. DEVOE.
R. W. B. McLELLAN.
COFFEE-POT.

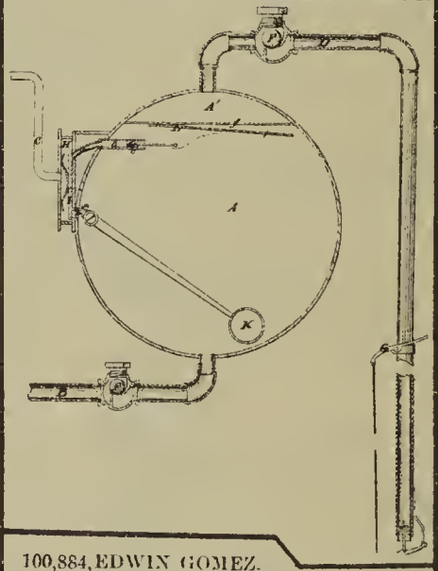


100,881, CHRISTIAN FLAMMER.
PROCESS OF MAKING GLASS SIGNS, SHOW-CARDS, &c.

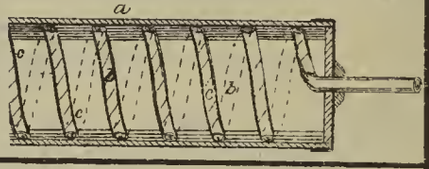
100,882, WILLIAM H. FLANIGAN.
COMBINED CARRIAGE, CRADLE, SWING, AND BABY-WALKER.



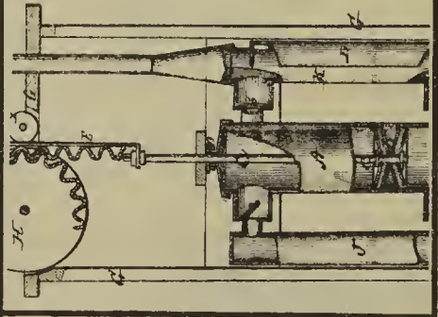
100,883, ELISHA H. GOLDMAN.
AUTOMATIC BOILER-FEEDER.



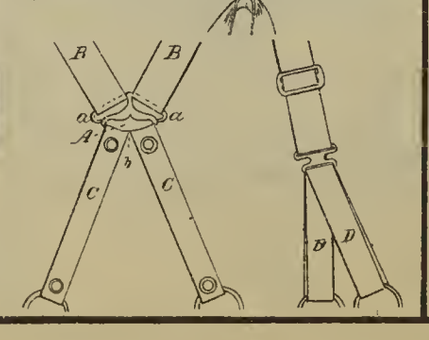
100,884, EDWIN GOMEZ.
TORPEDOES AND CARTRIDGES.



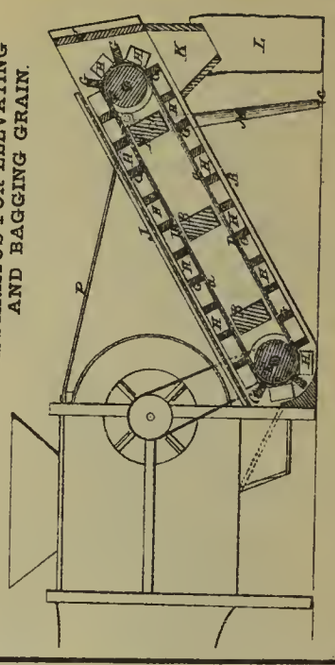
100,885, DANIEL J. GORTON. PUMPS.



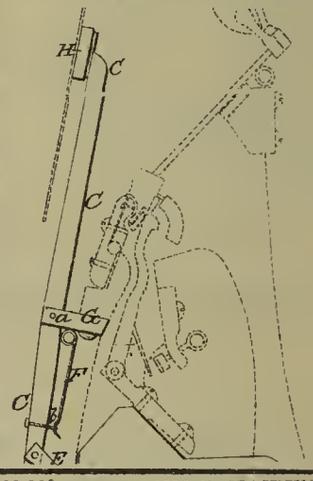
100,886, B. J. GREELY. SUSPENDERS.



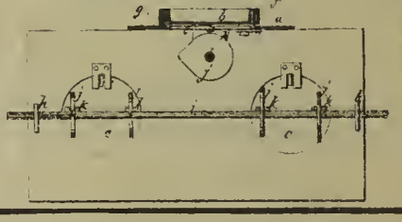
100,887, JOHN S. HASBROUCK.
APPARATUS FOR ELEVATING AND BAGGING GRAIN.



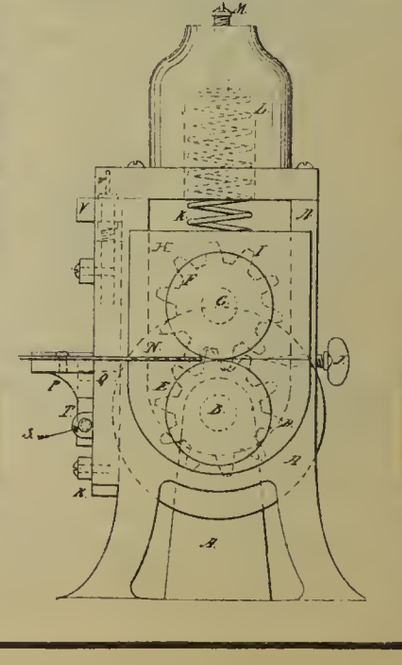
100,888, A. H. HASTINGS.
DAMPER FOR PIANO-FORTES.



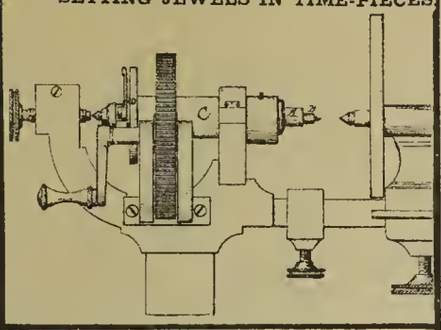
100,889, CORNELIUS E. HAYNES.
PACKING APPARATUS.



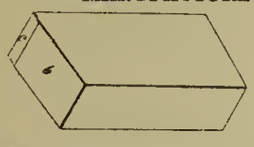
100,890, CHARLES H. HELMS.
LEATHER-SCARFING MACHINES.



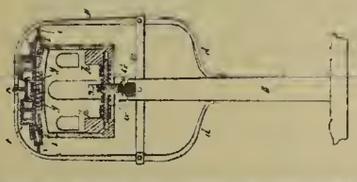
100,891, H. H. HESKETT. LATHE FOR SETTING JEWELS IN TIME-PIECES.



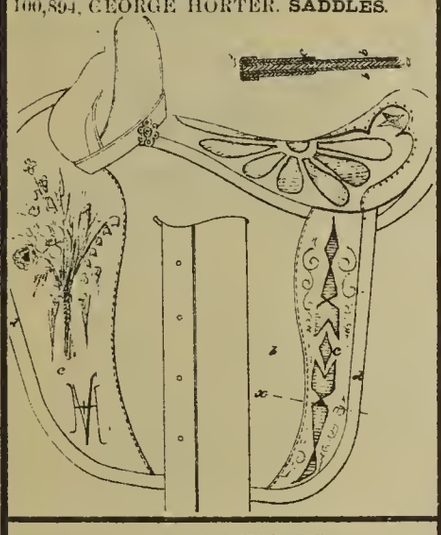
100,892, GEO. S. HEWITT. MANUFACTURE OF BRICKS.



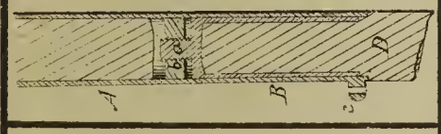
100,893 BENJ. L. HOOD. HENRY O. HOOD. EZRA W. CLARK, JR. ELEVATED RAILWAY



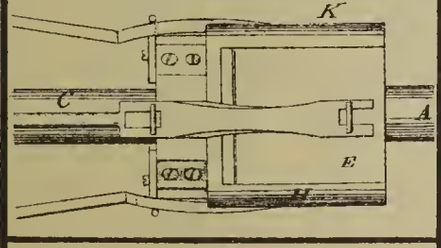
100,894, GEORGE HORTER. SADDLES.



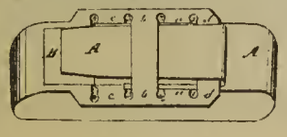
100,895, WILSON J. HUBBARD. JOINTS FOR FISHING-RODS.



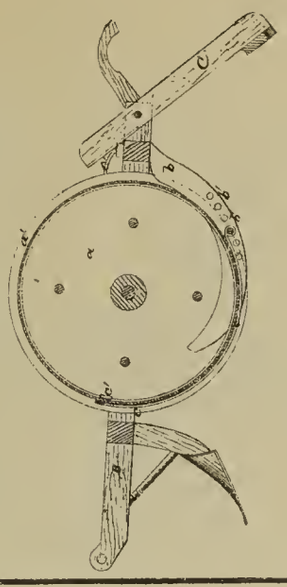
100,896, F. R. HUNT. PIPE-COUPLING FOR HEATING AND VENTILATING RAILROAD CARS.



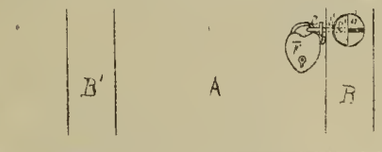
100,897, F. R. HUNT. PACKAGE BAND AND FASTENER.



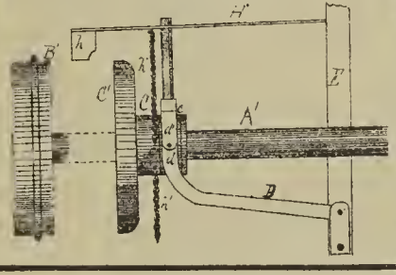
100,898, LEFRED IVERSON, JR. SEED AND GUANO-DRILL.



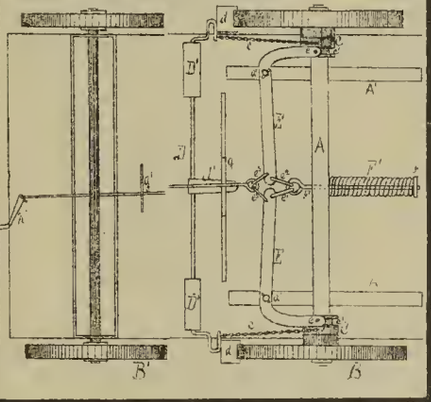
100,899, EDWD. P. JONES. HASP AND STAPLE FASTENING.



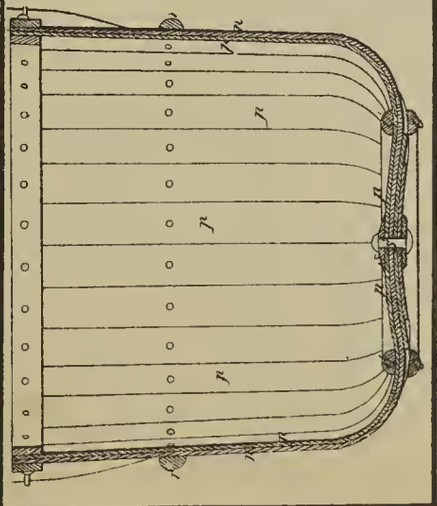
100,900, EDWD. P. JONES. RAILWAY-CAR BRAKE.



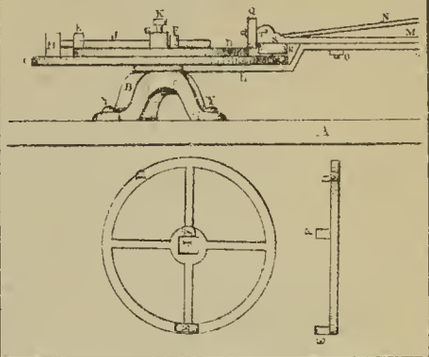
100,901, EDWD. P. JONES. WAGON-BRAKE.



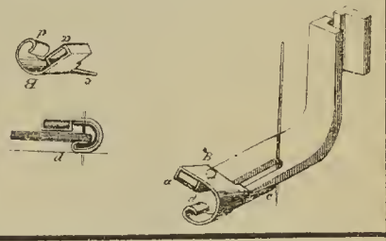
100,902, HORACE C. JONES. MANUFACTURE OF STAVE BASKETS.



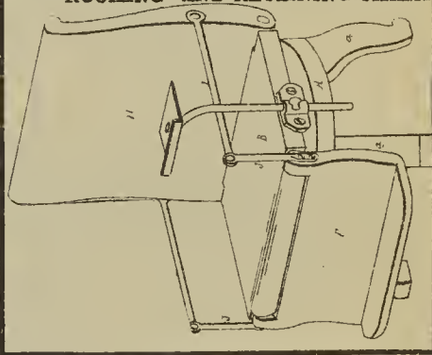
100,903 WM. J. JORDAN. MACHINE FOR BENDING FIFTH WHEELS.



100,904, AMASA C. KASSON. BINDING-ATTACHMENT FOR SEWING-MACHINE.

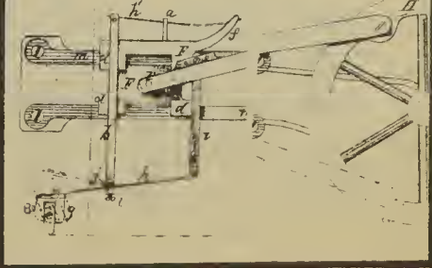


100,905, GEORGE KNELL. REVOLVING, ROCKING AND RECLINING-CHAIR.

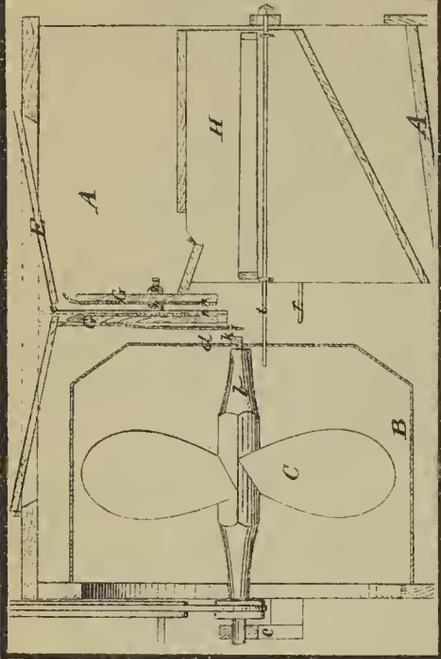


100,906, CAMILLE KREJCI. LIFE-PRESERVERS.

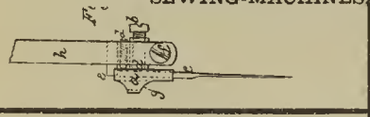
100,907, HENRY LAMPERT. APPARATUS FOR WORKING HIDES.



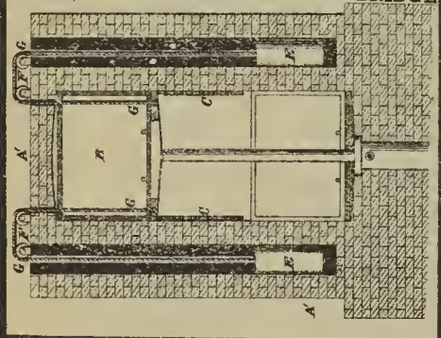
100,908, HORACE LITTLEFIELD
FANNING AND SMUT-MILL.



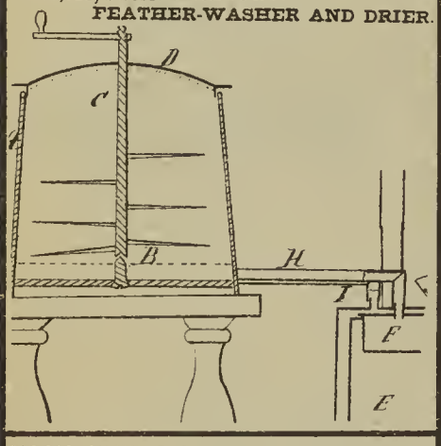
100,909, T. A. MACAULAY.
NEEDLE-ADJUSTING BLOCK FOR SEWING-MACHINES.



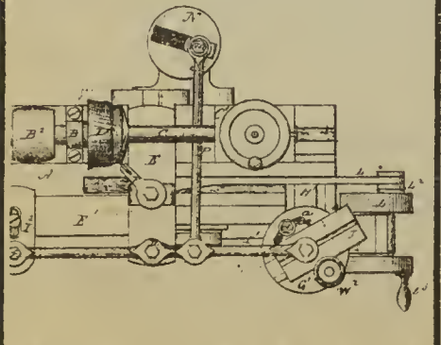
100,910, NEIL MACNEALE. **DRAW-BRIDGE**



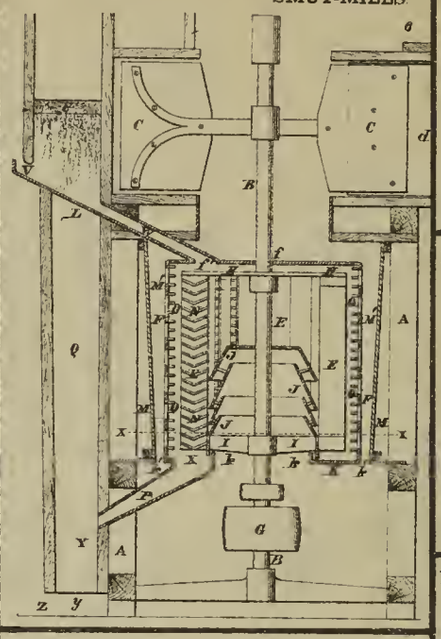
100,911, JOHN MALLORY.
FEATHER-WASHER AND DRIER.



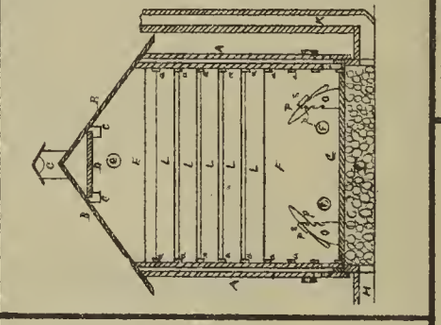
100,912, JOHN J. MARCY.
MACHINE FOR SPINNING SHEET METAL



100,913, DANIEL W. MARMON.
SMUT-MILLS.



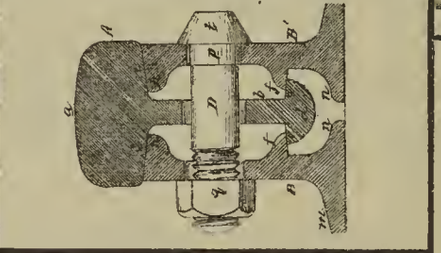
100,914. JAMES B. MAY. **FRUIT-DRIER**



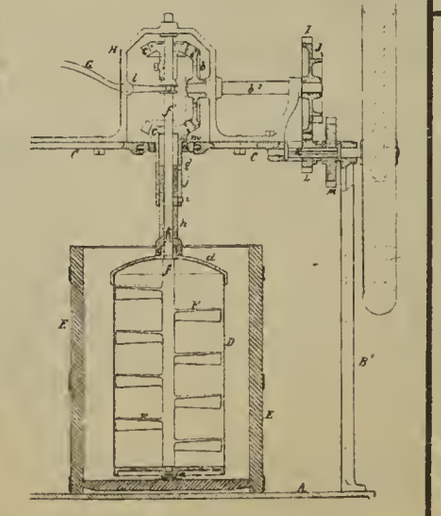
100,915. R. S. MERRILL.
PRODUCTION OF LIGHT FROM HEAVY HYDROCARBONS.

100,916, PHILEMON MERRYMAN.
PUDDLING PROCESS FOR MAKING WROUGHT IRON.

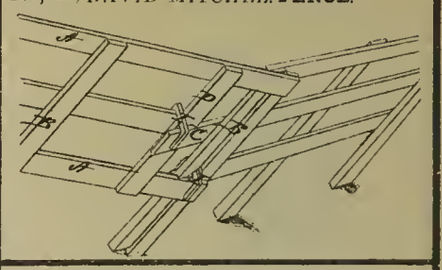
100,917, JAMES MILLHOLLAND.
RAILWAY RAILS.



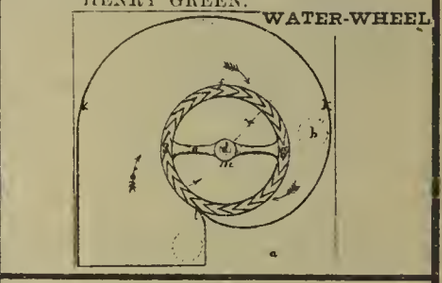
100,918, THOMAS MILLS
GEO. M. MILLS.
ICE-CREAM FREEZER.



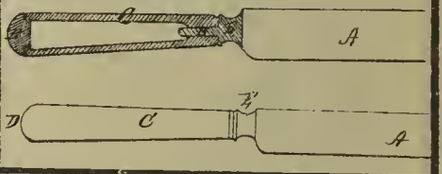
100,919, DAVID MITCHEL. **FENCE.**



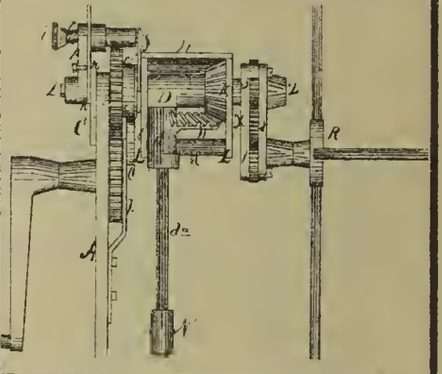
100,920, ALEXANDER F. MURRAY.
HENRY GREEN.
WATER-WHEEL.



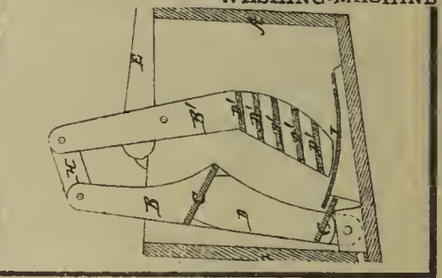
100,921, J. H. NICHOLS.
WM. BOWER.
HANDLES FOR TABLE CUTLERY.



100,922. AARON PALMER.
CHAS. W. PALMER.
HARVESTER-RAKES.



100,923, GEO. W. PUTNAM.
WASHING-MACHINE.



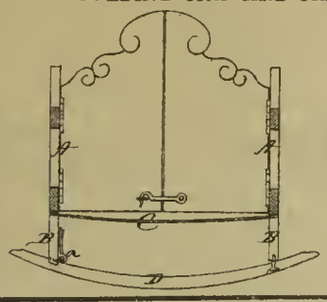
100,924, ISAAC REHN.
MODE OF PRODUCING PHOTO-LITHOGRAPHIC TRANSFERS.

THE ART-JOURNAL.

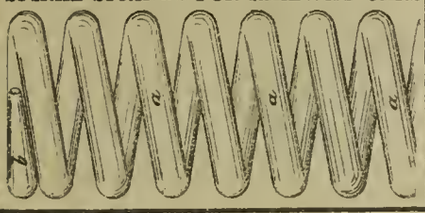
THE ROYAL ACADEMY.

GALLERY No. VI.

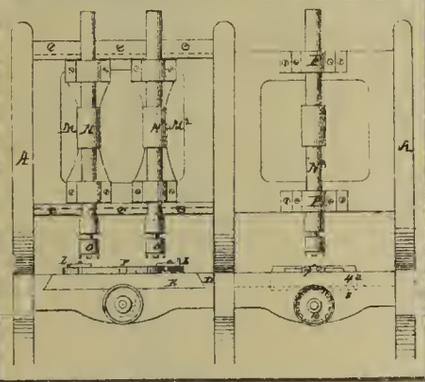
100,925, D. M. REYNOLDS.
FOLDING CRIB AND CRADLE.



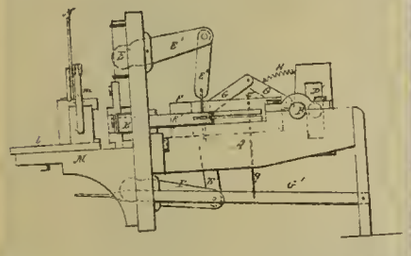
100,926, F. W. RHINELANDER.
SPIRAL SPRINGS FOR RAILWAY CARS.



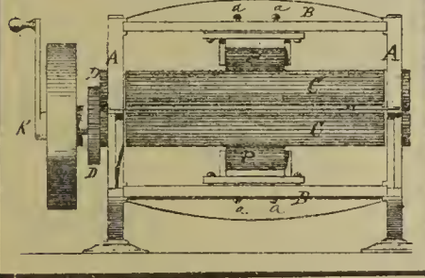
100,927, CHARLES F. RITCHEL. MACHINE FOR PREPARING WOOD FOR INLAYING.



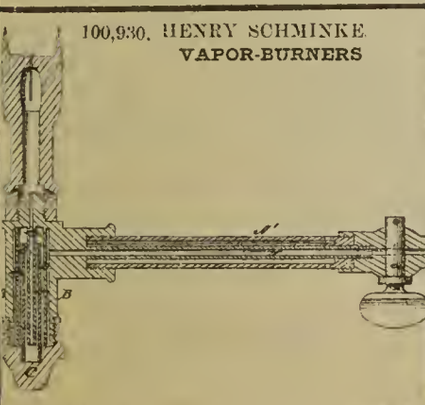
100,928, JOHN ROOT.
MACHINE FOR HEADING BOLTS.



100,929, FRANKLIN ROYS. MACHINE FOR CORRUGATING SHEET METAL.

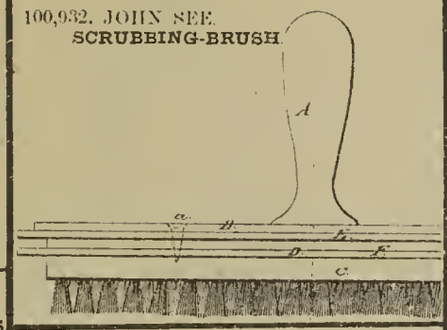


100,930, HENRY SCHMINKE.
VAPOR-BURNERS.

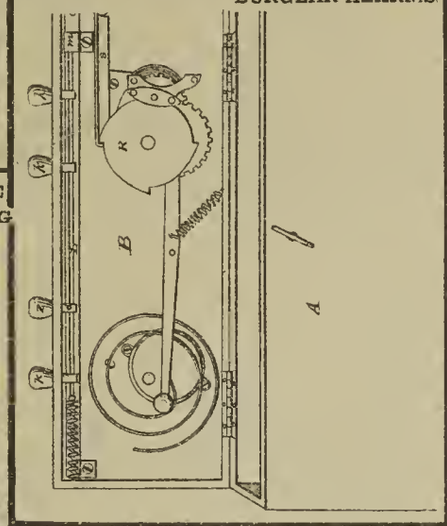


100,931, THOMAS C. SCRUTON.
CATARRH REMEDY OR SNUFF.

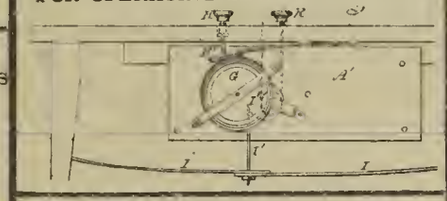
100,932, JOHN SEE.
SCRUBBING-BRUSH.



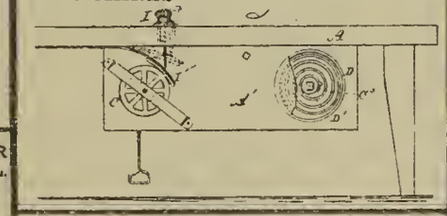
100,933, REUBEN SHALER.
BURGLAR-ALARMS.



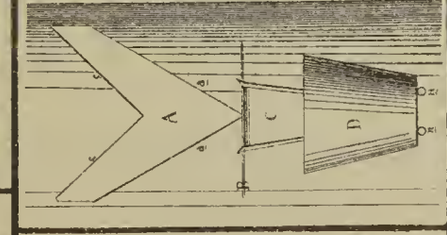
100,934, E. SHIVER. MECHANISM FOR OPERATING SEWING-MACHINES.



100,935, E. SHIVER.
MECHANISM FOR DRIVING SEWING MACHINES.

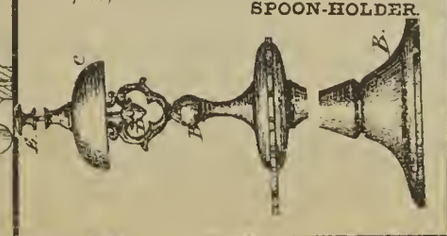


100,936, J. C. SHULER. EXTRACTING TURPENTINE FROM PINE-TREES.

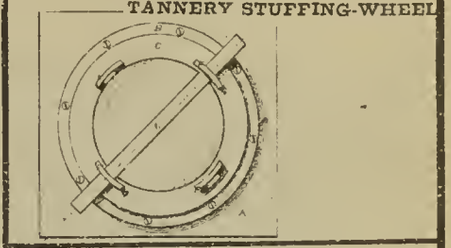


100,937, LORENZO SIBERT.
METALLIC ALLOY TO IMITATE THE PRECIOUS METALS.

100,938, SAMUEL SIMPSON.
SPOON-HOLDER.

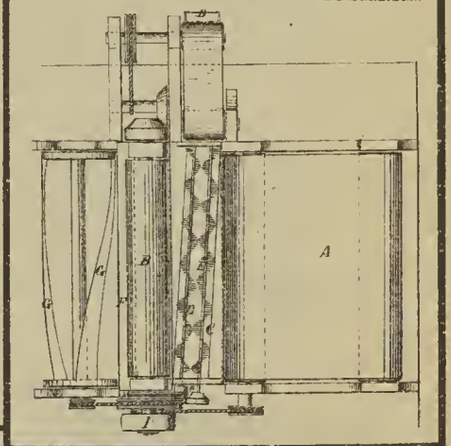


100,939, HENRY SMITH, Jr.
MAN-HOLE PLATE FOR TANNERY STUFFING-WHEEL.

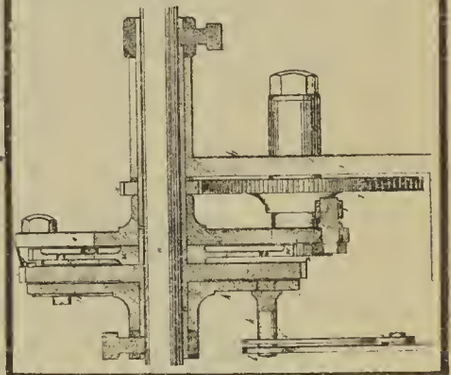


100,940, JOSEPH T. SMITH.
RAILROAD CONDUCTORS' TICKET-CASES.

100,941, THOS. S. SMITH.
CORN-HUSKERS.



100,942, H. D. SNOW.
WATER-WHEEL REGULATOR.

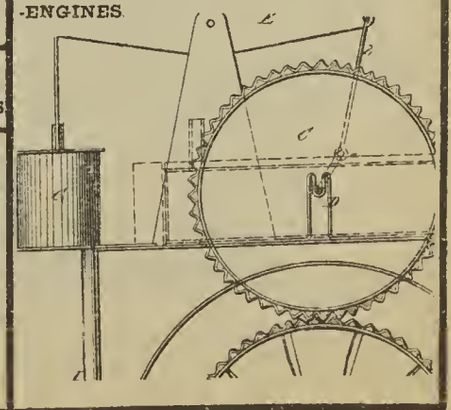


100,943, S. M. SNYDER. RAILWAY GATE.

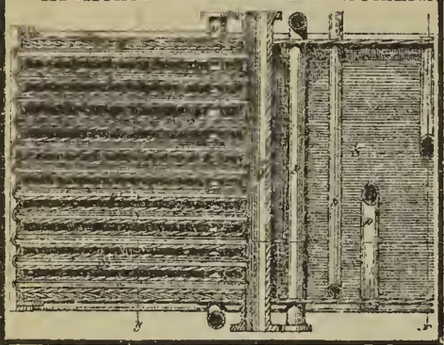
100,944. S. SOREL. MANUFACTURE OF CEMENT FOR ARTIFICIAL STONE.

100,945. S. SOREL. MANUFACTURE OF ARTIFICIAL STONE.

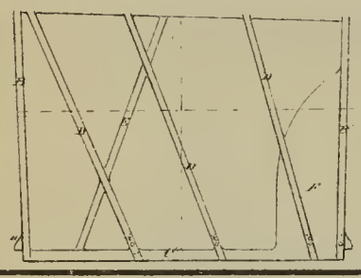
100,946. HATHERLY SPEAR. COMBINED CURRENT-WHEELS AND CONDENSING-ENGINES.



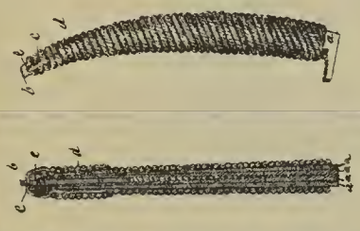
100,947, ELIHU SPENCER. HEATING-ATTACHMENT FOR STEAM-BOILERS.



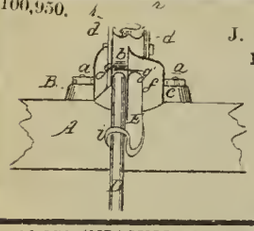
100,948, GEORGE STECK. IRON FRAMES FOR UPRIGHT PIANOS.



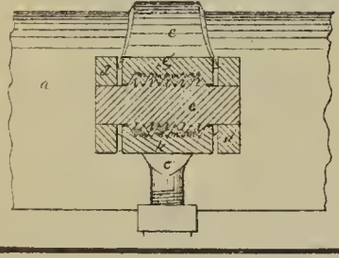
100,949. LOVITT STIMSON. WRAPPING SCYTHES FOR TRANSPORTATION.



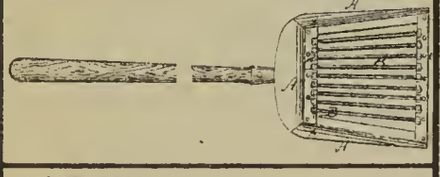
100,950. J. C. STODDARD. HORSE-RAKES.



100,951, CHAUNCEY THOMAS. THILL-COUPLING.



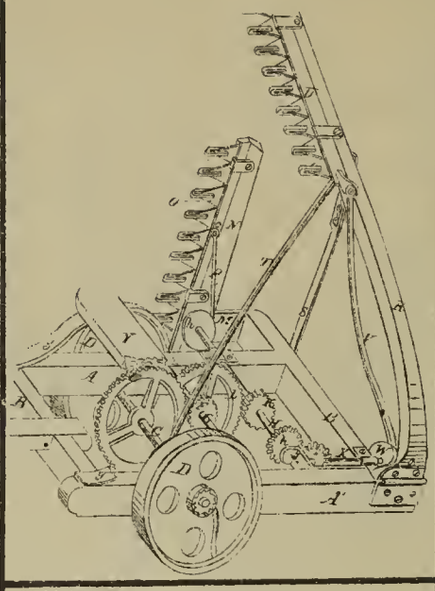
100,952, ROBERT J. S. THOMPSON. ASH-SHOVEL.



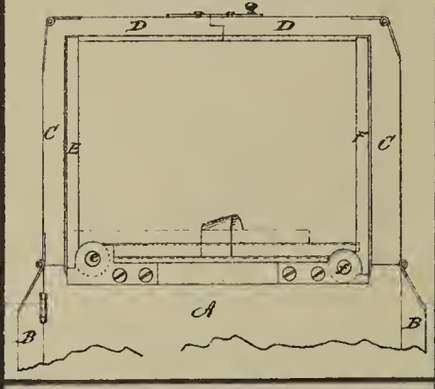
100,953, JOSEPH TREAT. MANUFACTURE OF ROSIN-OIL.

100,954. A. VAN CAMP. M. M. HODGMAN. COMPOSITION FOR CONCRETE PAVEMENTS, WALKS, &c.

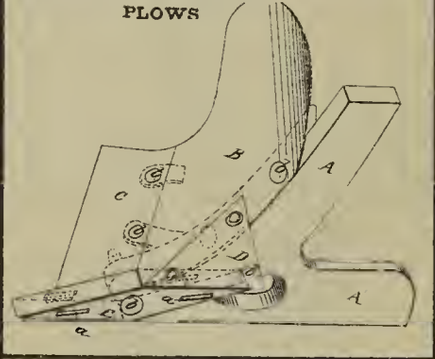
100,955, GEO. WADDINGTON. COMBINED HEDGE-TRIMMER AND MOWER.



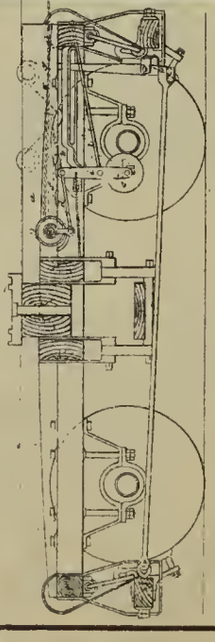
100,956. EDWARD WELLS. LANDAU CARRIAGE-DOORS.



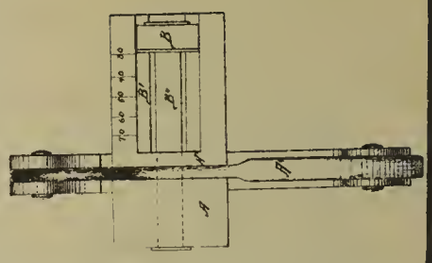
100,957, R. J. WHEATLEY. PLOWS.



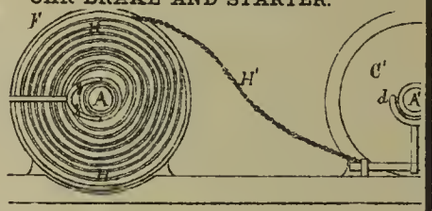
100,958, MARMADUKE WILKIN. JOHN CLARK. AUTOMATIC CAR-BRAKES.



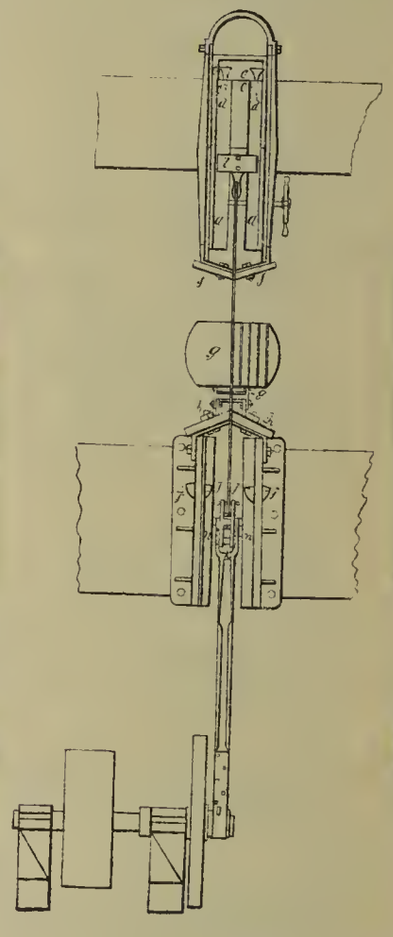
100,959, W. N. C. WILLSON. GAUGE FOR TOBACCO-CUTTERS.



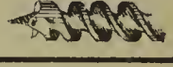
100,960. EDWD. P. JONES. CAR BRAKE AND STARTER.



3,878, ASHBELL P. BARLOW. SAW-MILLS.



3,879, IRA T. PAYNE. AUGERS.



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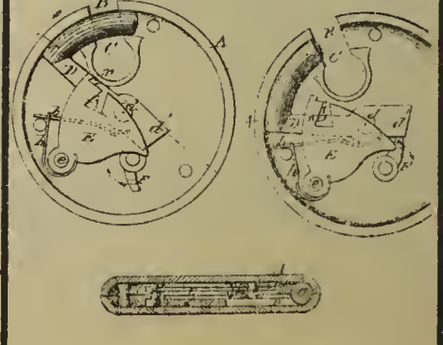

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100,961. I. ADAMS, JR. ELECTRO DEPOSITION OF METALS.

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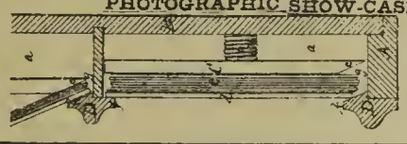

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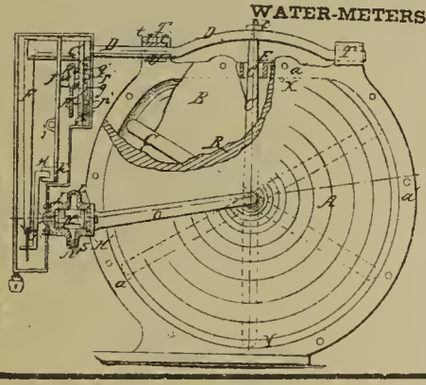

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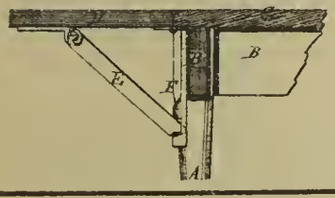

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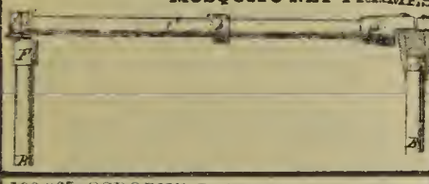

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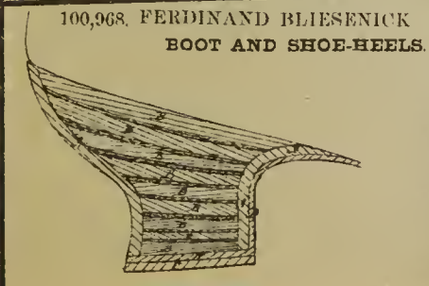

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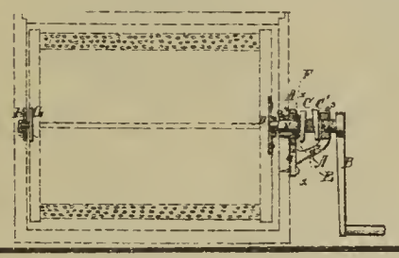

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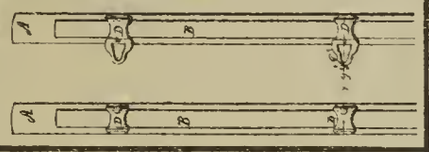

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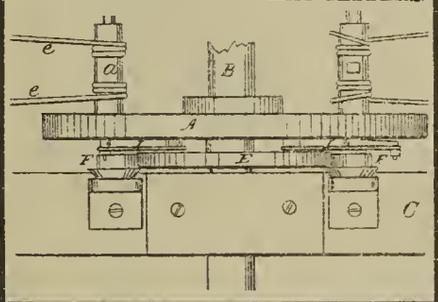

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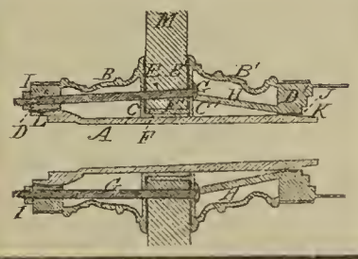

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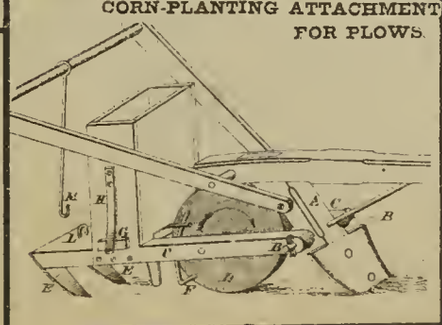

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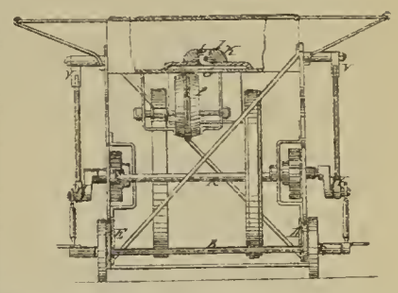

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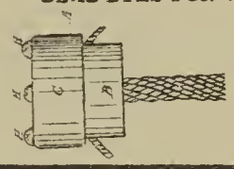

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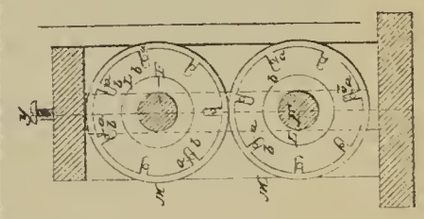

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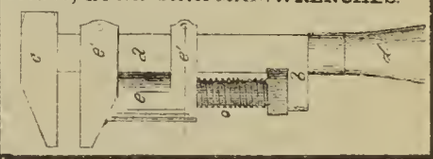

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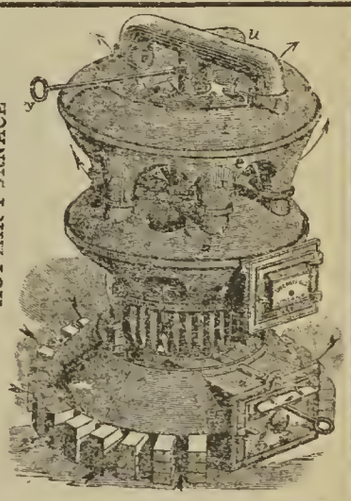

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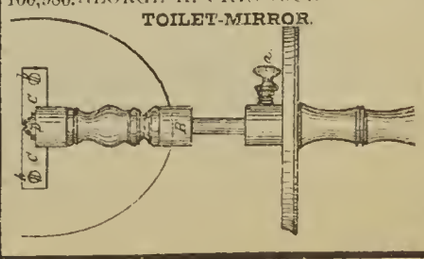

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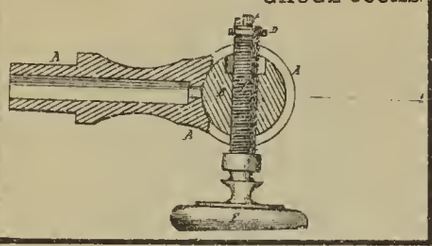

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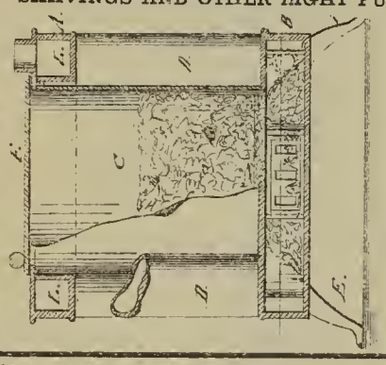

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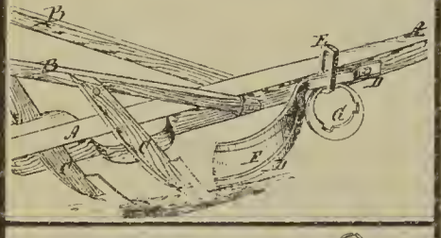

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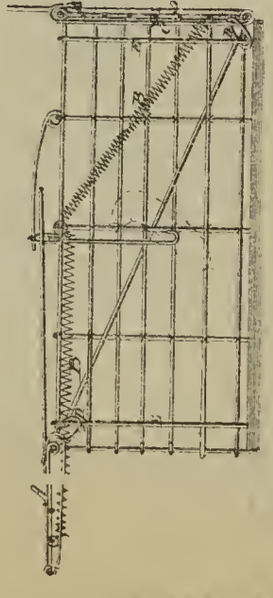

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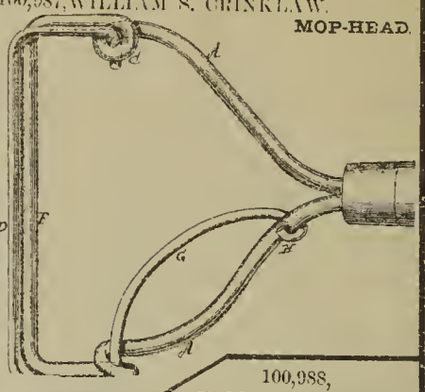

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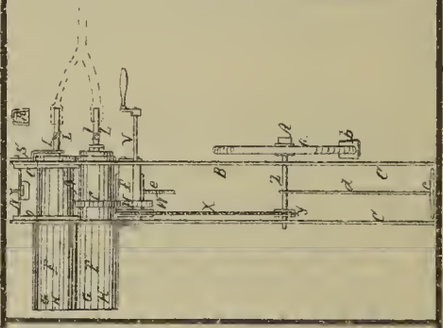

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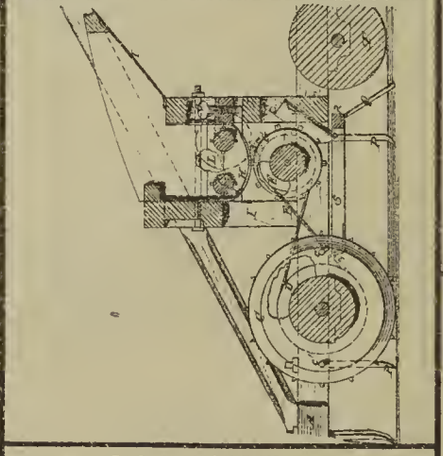

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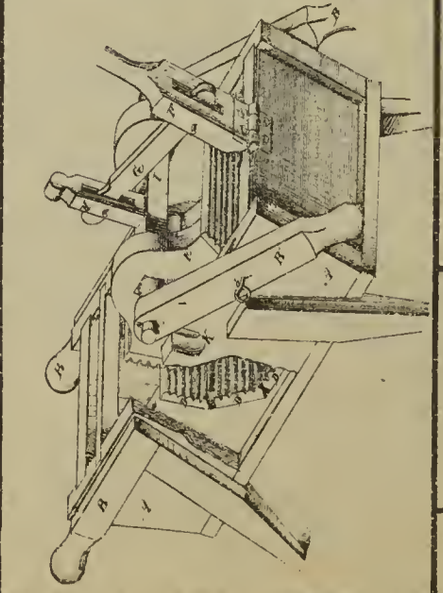

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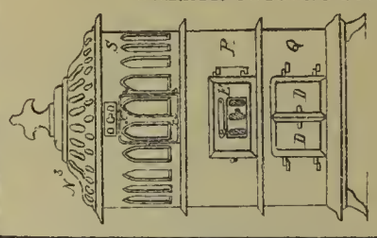

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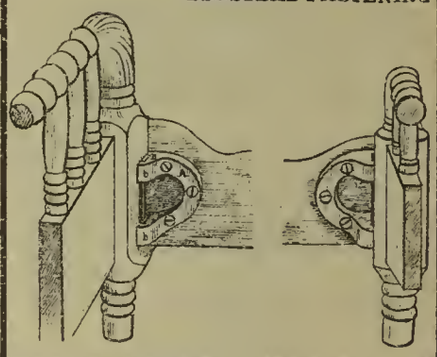

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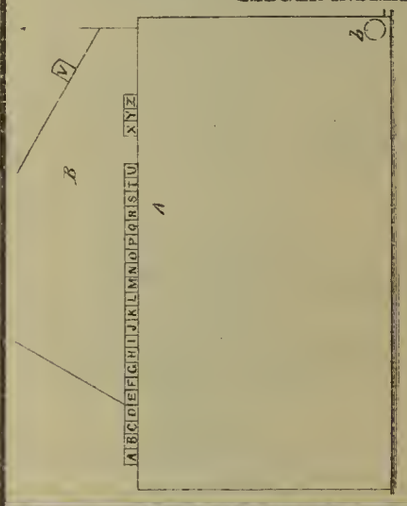

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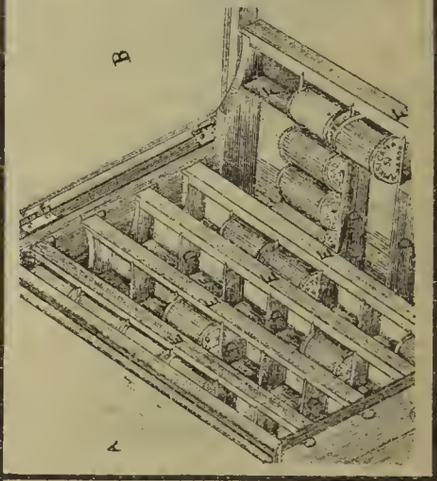

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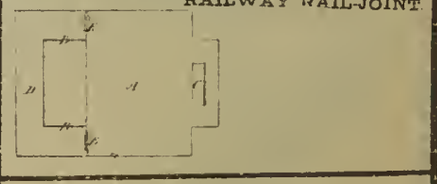

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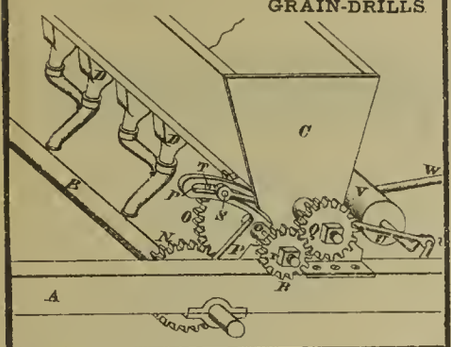

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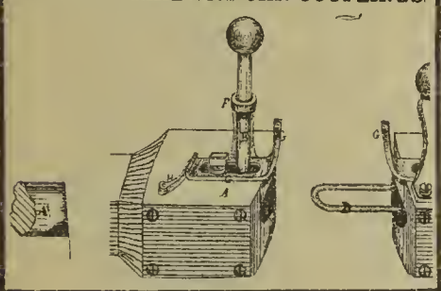

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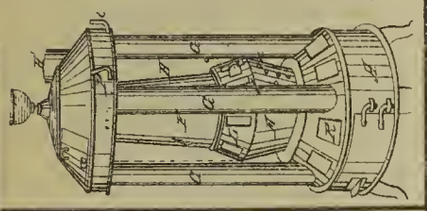

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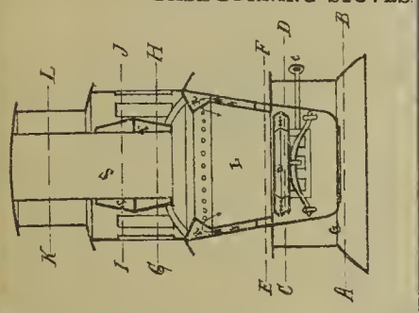

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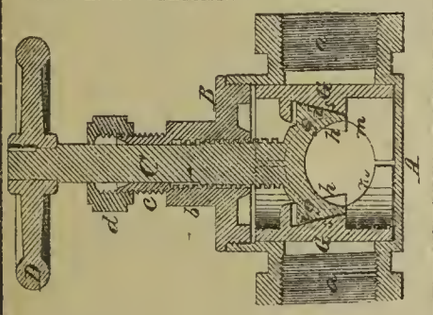

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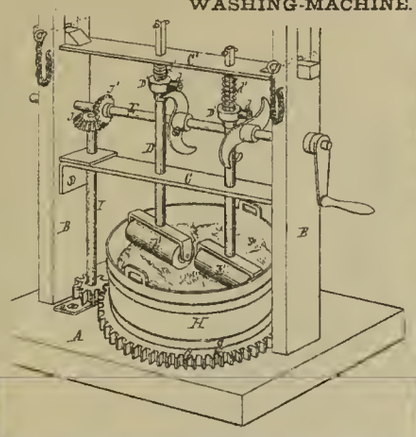

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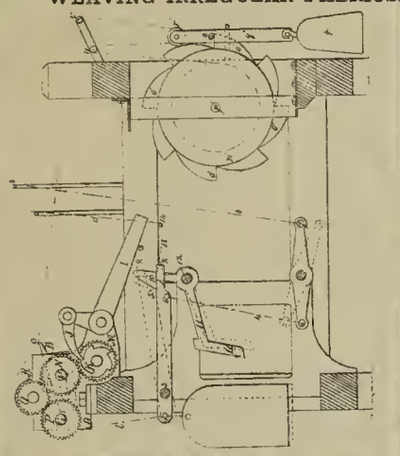

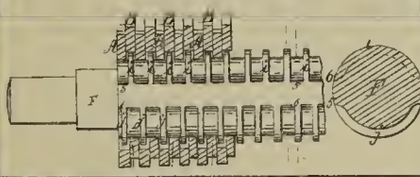

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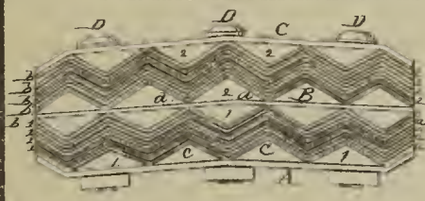

101,009, NAT. HASKELL.
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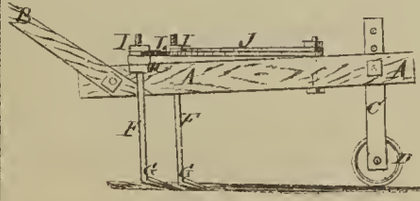
101,010, H. W. HASSLOCK. HORSE-HOE.



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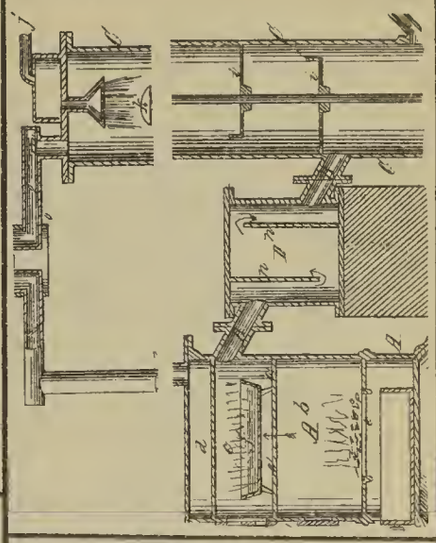

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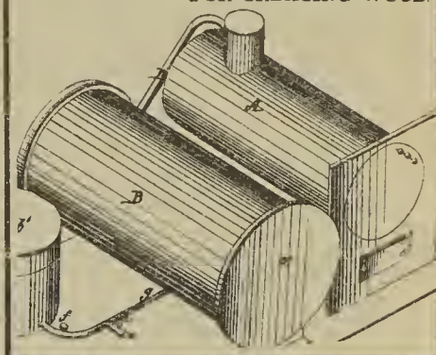

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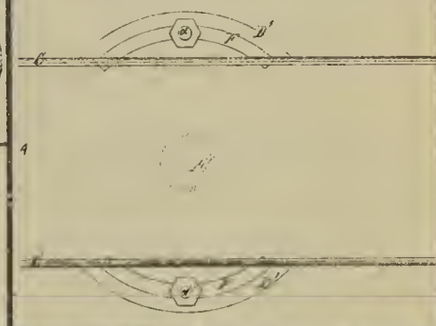

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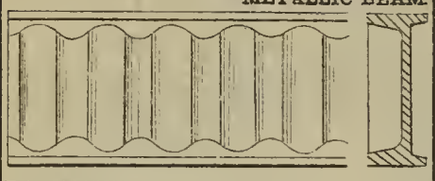
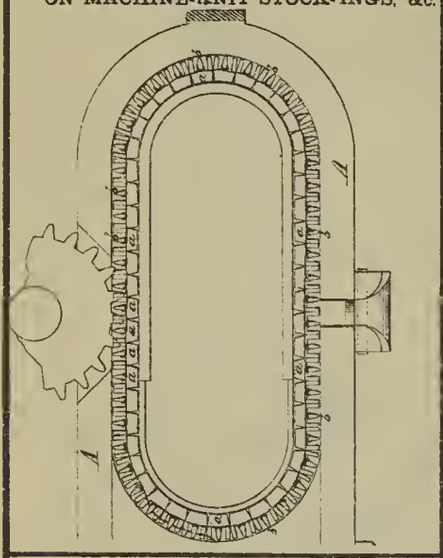
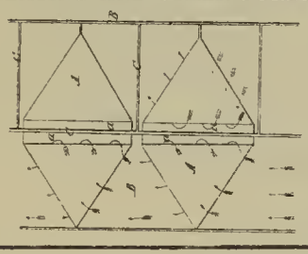
101,015, LAURENCE HOLMS.
METALLIC BEAM.



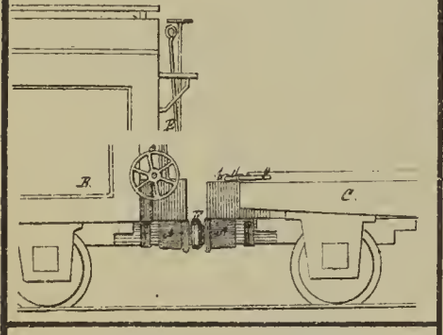
101,016, HENRY A. HOUSE.
METHOD OF PRODUCING SELVAGES ON MACHINE-KNIT STOCK-INGS, &c.



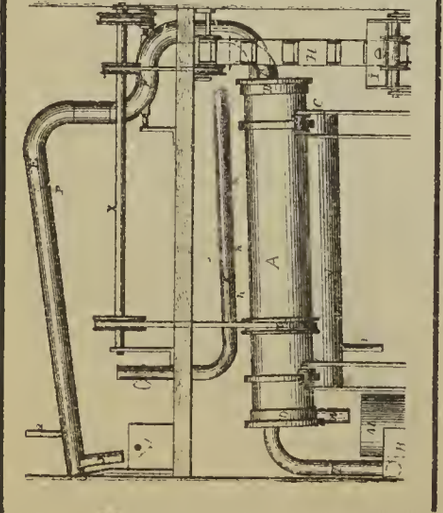
101,017, THOS. HYDES.
JOSEPH BENNETT.
HEATING AND OTHER FURNACES.



101,018, WM. MILLER INGSTRUM.
CAR-COUPLING.

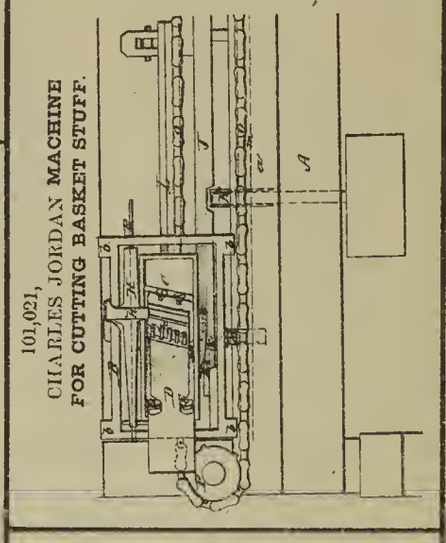


101,019, GUSTAVUS A. JASPER.
APPARATUS FOR COOLING AND SAVING CHARCOAL.

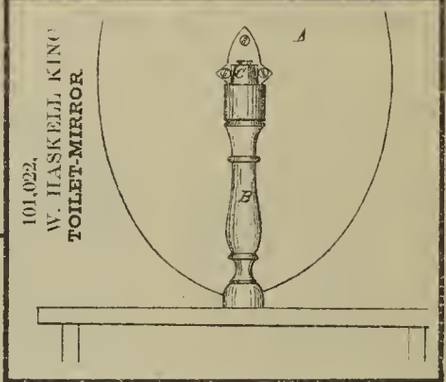


101,020, GEO. T. JONES. MANUFACTURE OF REVENUE AND OTHER STAMPS.

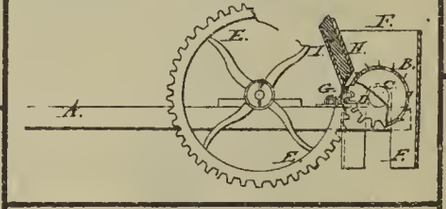
101,021, CHARLES JORDAN MACHINE FOR CUTTING BASKET STUFF.



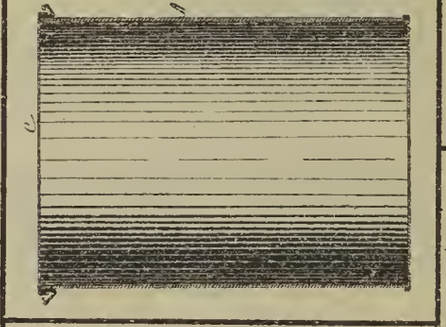
101,022, W. HASKELL KING
TOILET-MIRROR.



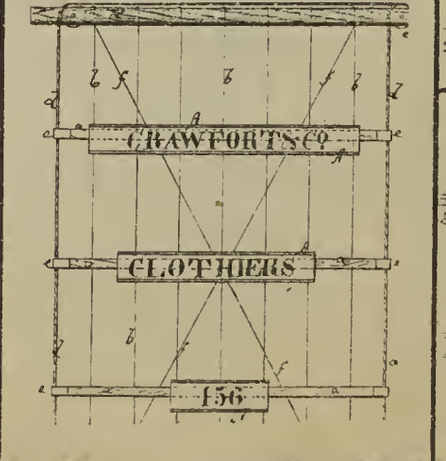
101,023, WARREN KINYON. GRATER.
JOHN MAXSON.



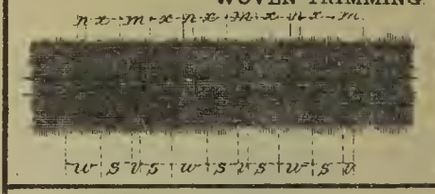
101,024, ISAAC KLING. FRUIT-CANS.



101,025, P. A. LA FRANCE. SIGNS.
J. D. DENSMORE.

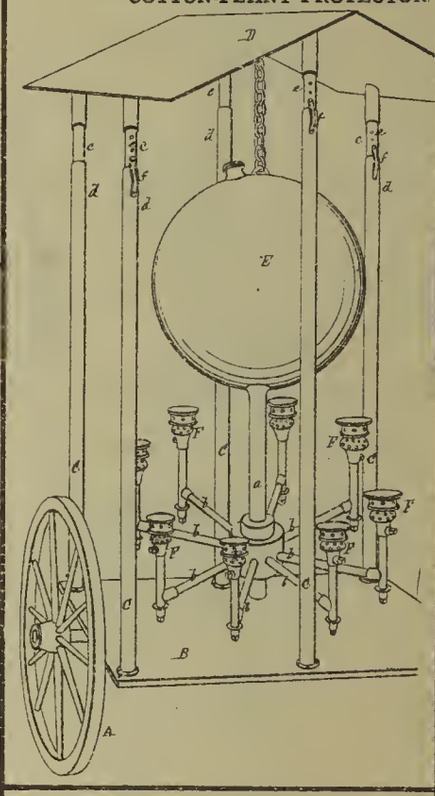


101,026, CATHOLINA LAMBERT.
WOVEN TRIMMING.

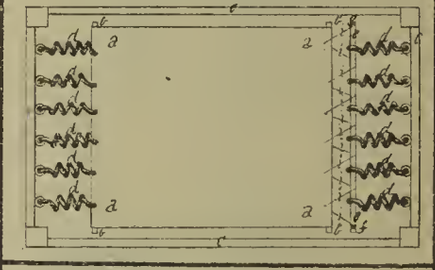


101,027, LUIGI F. LASTRETO.
MEDICINAL BEVERAGE.

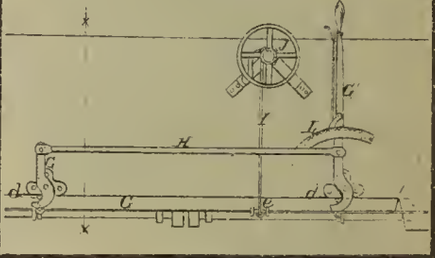
101,028, AUGTE. LE BLANC.
COTTON-PLANT PROTECTOR.



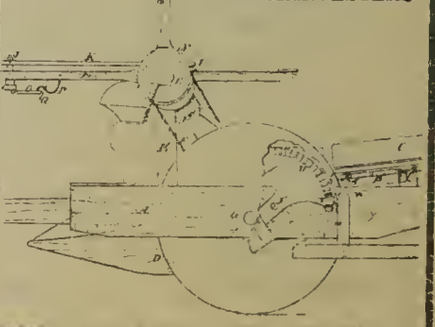
101,029, GEORGE W. LOOMIS.
SPRING-BED BOTTOM.



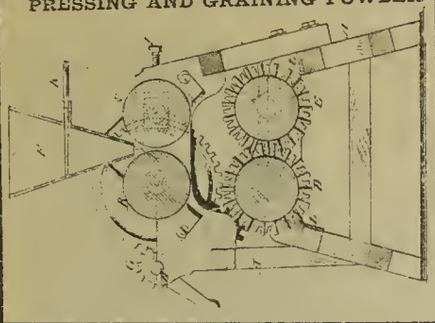
101,030, VIRGIL H. LYON.
DUMPING-WAGONS.



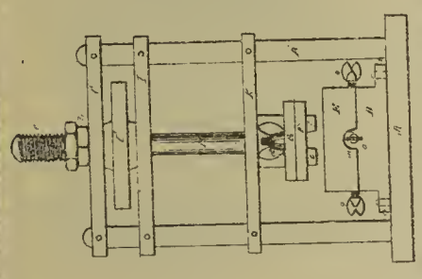
101,031, J. B. McCORMICK.
HARVESTERS.



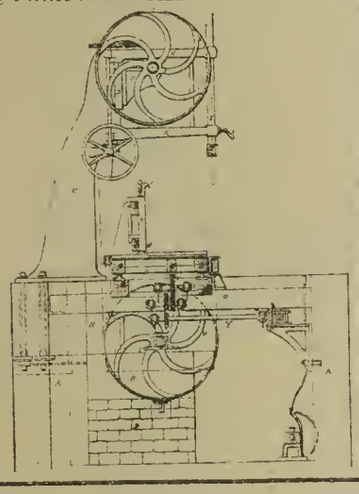
101,032, PAUL A. OLIVER. MACHINE FOR PRESSING AND GRAINING POWDER.



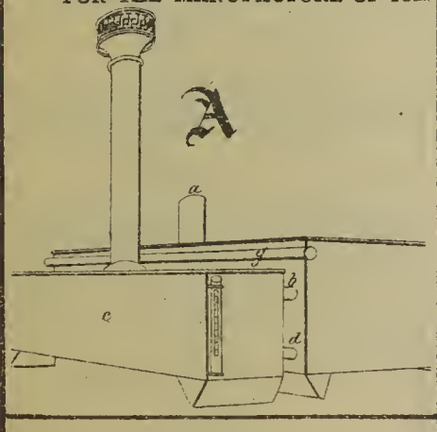
101,033, SAMUEL JOSEPH PEET, DANIEL SAWYER. MACHINES FOR FORMING MOLDS.



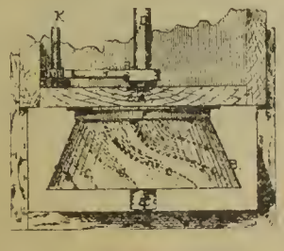
101,034, PERIN. SAW-MILLS.



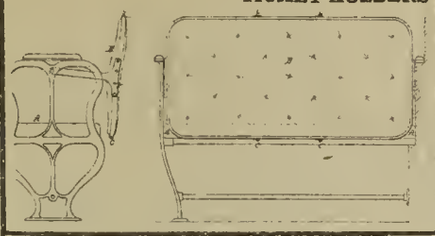
101,035, THOMAS F. PETERSON. APPARATUS FOR PURIFYING WATER FOR THE MANUFACTURE OF ICE.



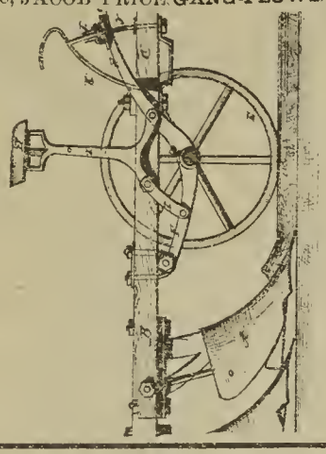
101,036, THOS. H. POWERS. WATER-WHEELS.



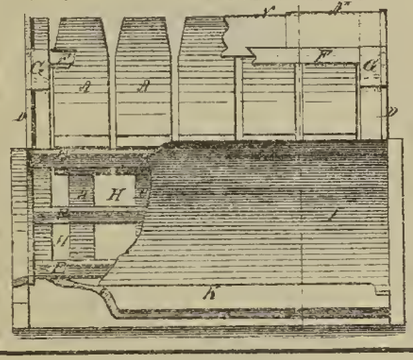
101,037, ONSVILLE EVANS PRAY. TICKET-HOLDERS.



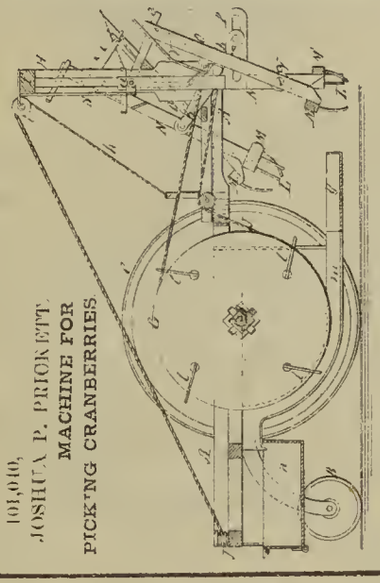
101,038, JACOB PRICE. GANG-PLOWS.



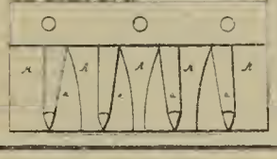
101,039, JOHN M. PRICE. BEE-HIVES.



101,040, JOSHUA P. PRICKETT. MACHINE FOR PICKING CRANBERRIES.

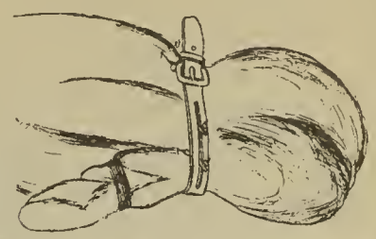


101,041, SAXON J. RAYMOND. KNIFE FOR SPLITTING WOOD.

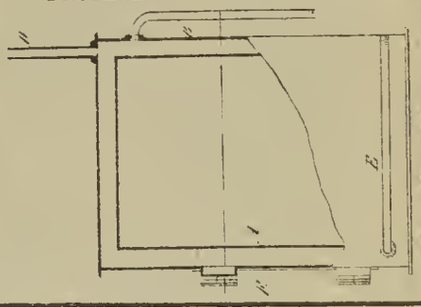


101,042, DAVID RINKLE. STOMACH BITTERS.

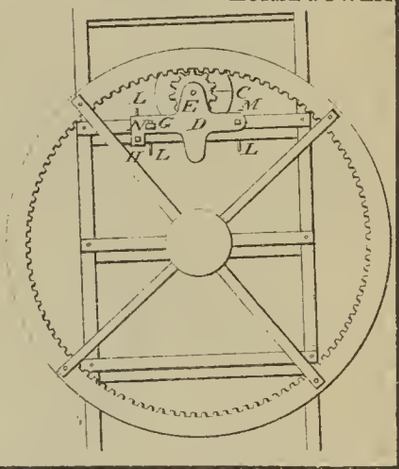
101,043, F. A. ROBERTS. TAIL-HOLDER FOR HORSES.



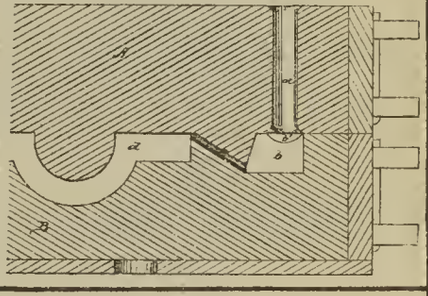
101,044, JOHN A. ROBERTSON. STEAM PROTECTION FOR SAFES, VAULTS.



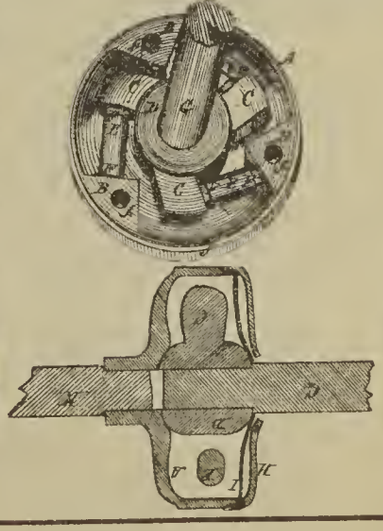
101,045, F. W. ROBINSON. HORSE-POWER.



101,046, R. ROSS. CASTING METAL.

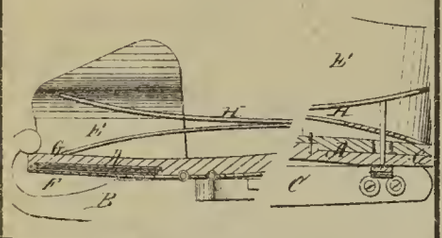


101,047, THEODORE ROWELL. SHAFT-COUPLING.

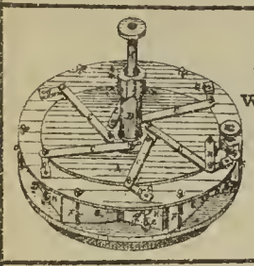


101,048 JOHN ROWLEY. TREATING COAL PRODUCTS TO OBTAIN BENZOLE.

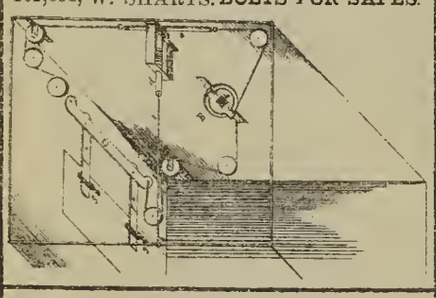
101,049, J. F. SCHNEIDER. SKATES.



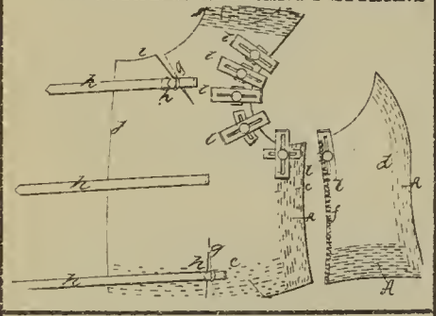
101,050, W. L. SELLECK. WATER-WHEELS.



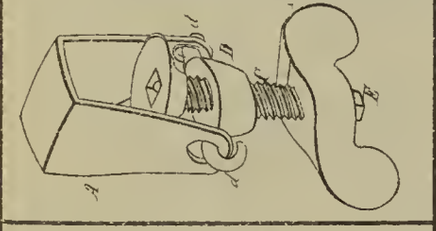
101,051, W. SHARTS. BOLTS FOR SAFES.



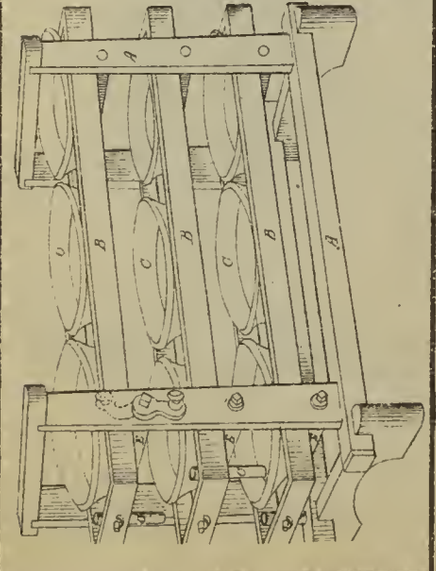
101,052, SAMUEL SHAWCROSS. ADJUSTABLE GARMENT-PATTERNS



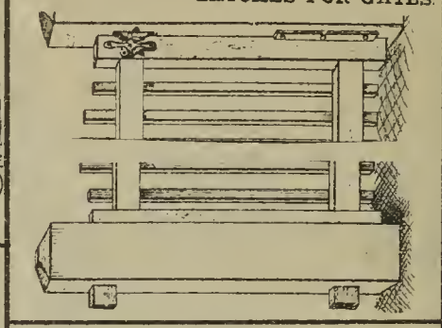
101,053, ALFRED B. SHEAFFER. HAND-SCREW AND CLIP FOR SPLICING BROKEN CARRIAGE-TIRES



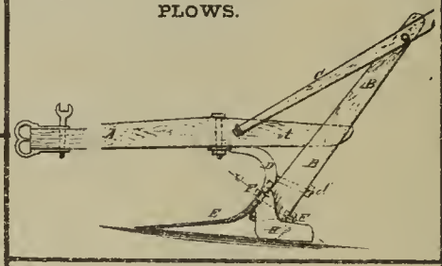
101,054, LAWSON SHIPMAN. MILK-RACKS AND COOLERS.



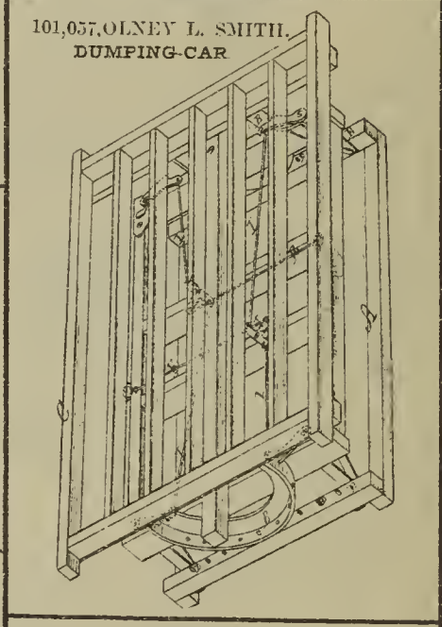
101,055, WARREN SHUMARD. LATCHES FOR GATES.



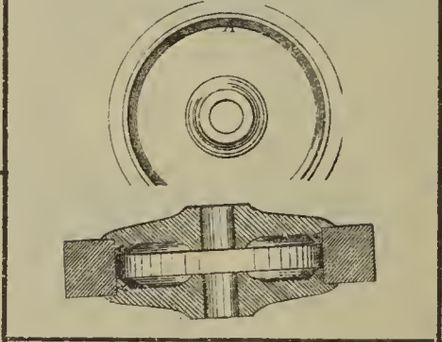
101,056, D. T. SINGLETON. PLOWS.



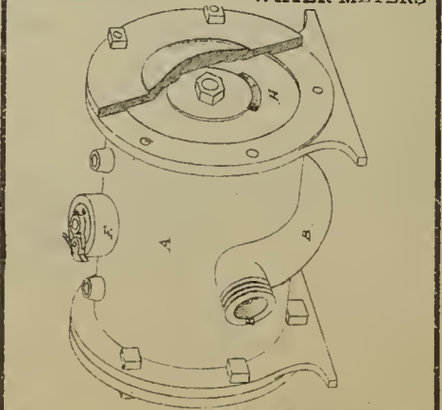
101,057, OLNEY L. SMITH. DUMPING-CAR.



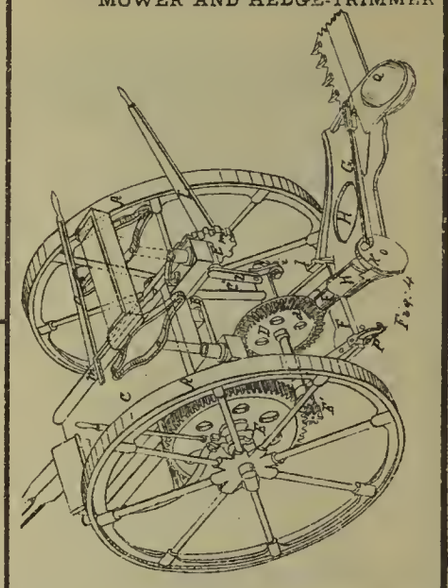
101,058, E. A. SÜWERKROP. EMERY-WHEEL CLAMP.



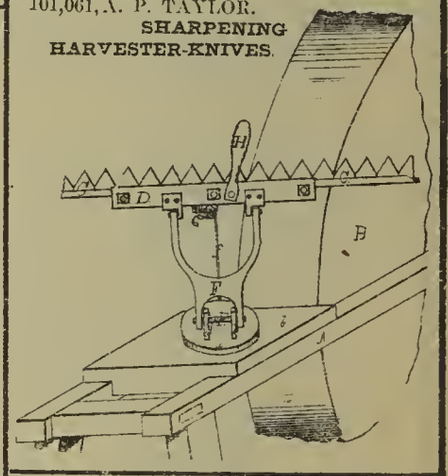
101,059, THOMAS SWEENEY. WATER-METERS.



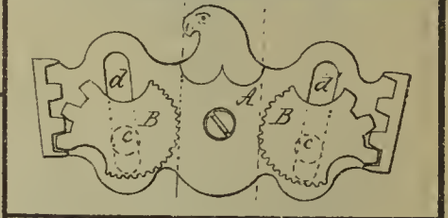
101,060, J. OSCAR TABER. COMBINED MOWER AND HEDGE-TRIMMER.



101,061, A. P. TAYLOR. SHARPENING HARVESTER-KNIVES.

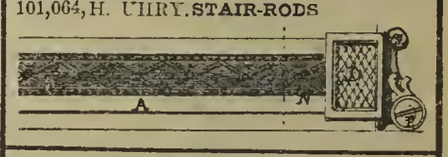


101,062, A. B. THOMPSON. CLAMP FOR HOLDING BROOMS, BRUSHES.

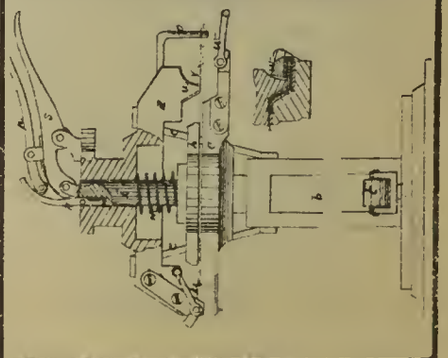


101,063, H. UHRY. STAIR-RODS.

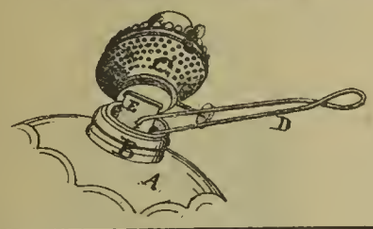
101,064, H. UHRY. STAIR-RODS.



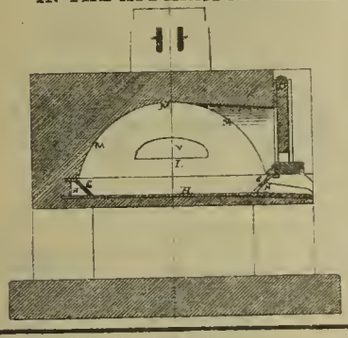
101,065, JOHN M. VEASEY. SHEET-METAL SEAMING-MACHINE.



101,066, WILLIAM WESTLAKE.
ATTACHMENT FOR LAMP-BURNERS.

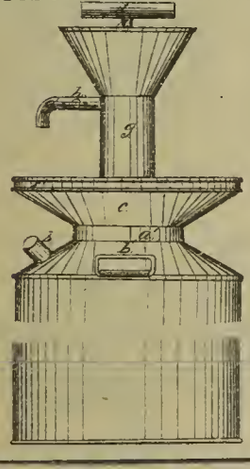


101,067, JAMES D. WHELPLEY.
JACOB J. STORER.
MANUFACTURE OF IRON AND IN THE APPARATUS THEREFOR.

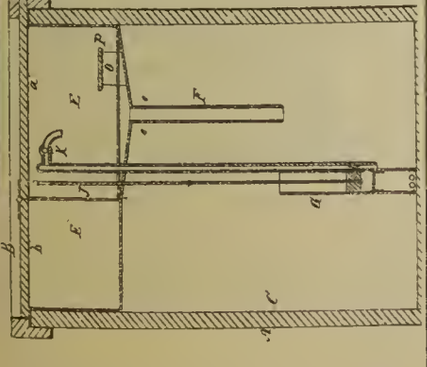


101,068, A. W. WHITNEY.
P. A. WHITNEY.
F. A. WHITNEY. **TINNERS' AND SHEET-IRON WORKERS' ROLLS.**

101,069, ELI F. WILDER.
APPARATUS FOR MEASURING LIQUIDS.

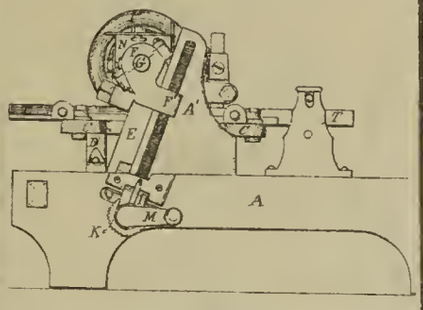


101,070, MOSES H. WILEY. **OIL-CABINET.**

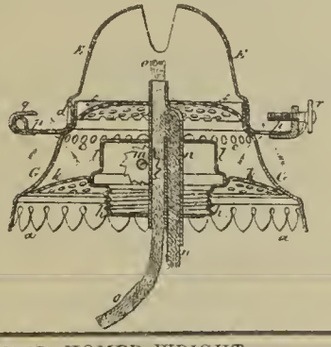


101,071, THOS. E. WOOD. **COMPOUND TO BE APPLIED TO ROOFING.**

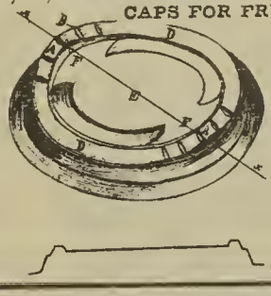
101,072, GEORGE E. WOODBURY.
PLANING-MACHINES.



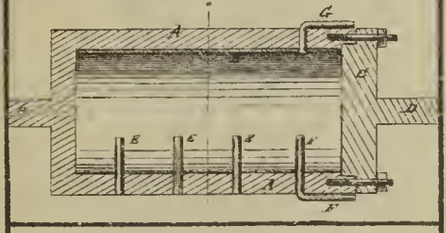
101,073, DAVID PITCAIRN WRIGHT.
CEPHAS BUTLER.
LAMP-BURNERS.



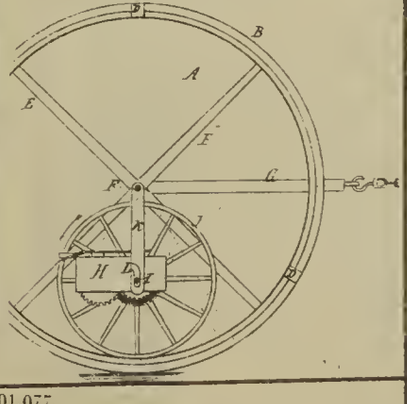
101,074, HOMER WRIGHT.
CAPS FOR FRUIT-JARS.



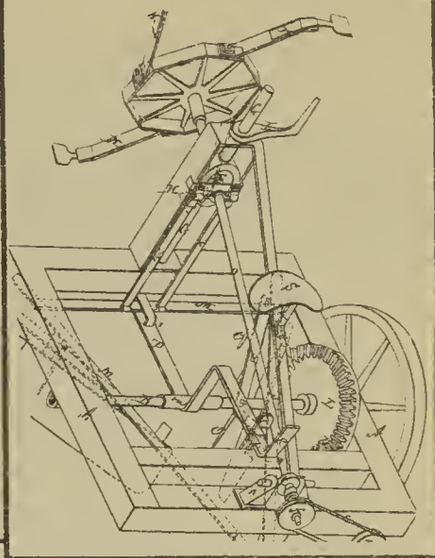
101,075, HOWELL W. WRIGHT.
ELECTROPLATING APPARATUS.



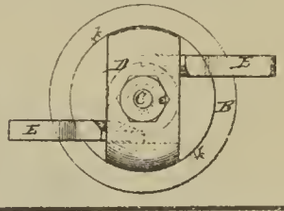
101,076, ARTHUR M. ALLEN.
TOY ROLLING CAGE.



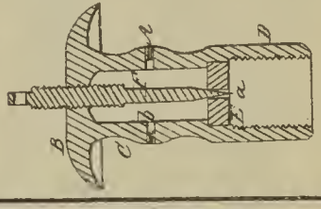
101,077,
WM. J. ANDREWS.
COTTON-CULTIVATOR.



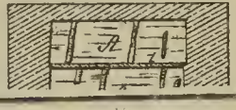
101,078, JOSEPH F. APPLEGATE.
CASPAR FEIOCK.
BUNGS.



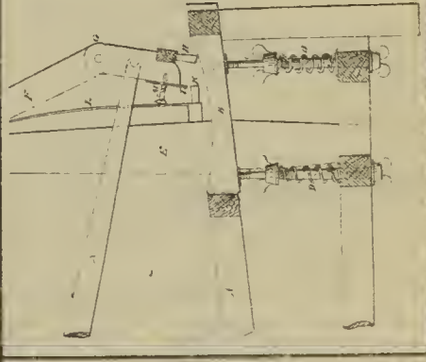
101,079, WILLIAM AURICH.
VAPOR-BURNERS.



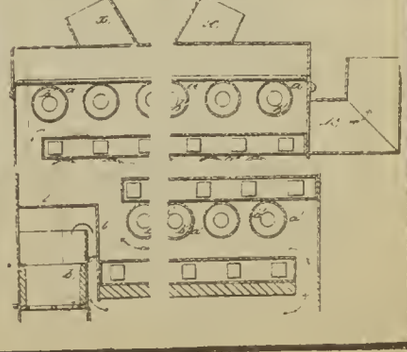
101,080, JAS. F. BABCOCK.
SPRINGS FOR RAILROAD CARS.



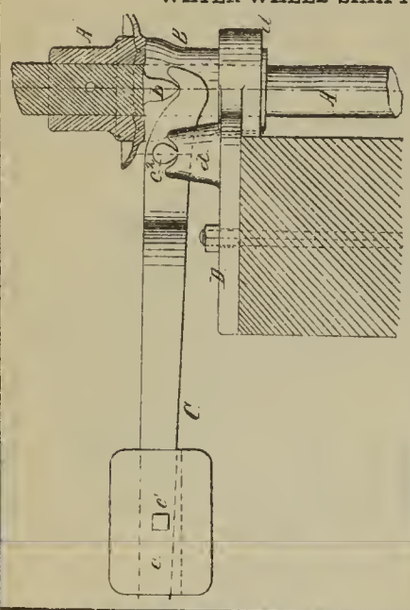
101,081, JAMES T. his + mark BARNSTEAD.
MACHINES FOR SCRAPING LEATHER.



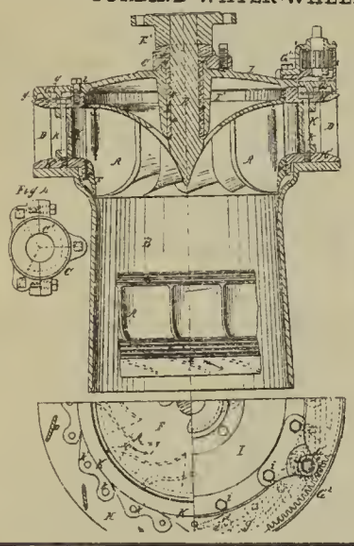
101,082, WM. D. BARTLETT.
HEATING-FURNACES.



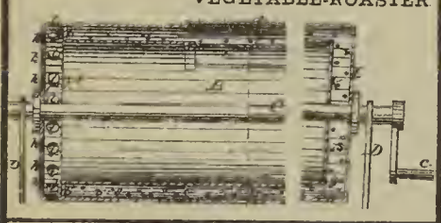
101,083, WM. BAYLEY.
ADJUSTABLE BEARINGS FOR WATER-WHEEL SHAFTS.



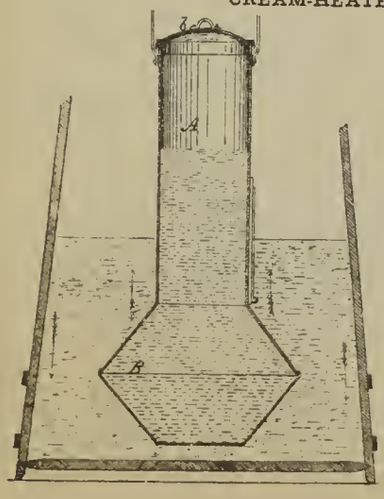
101,084, WM. BAYLEY.
A. B. CROWELL.
TURBINE WATER-WHEELS.



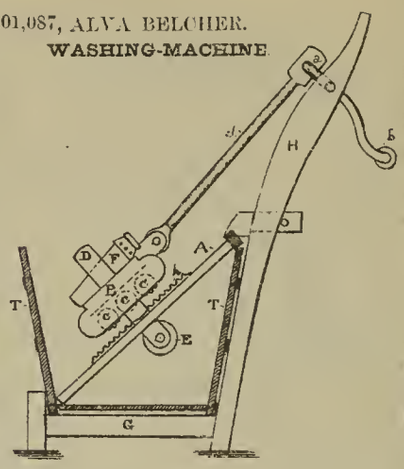
101,085, C. G. BAYLOR.
VEGETABLE-ROASTER.



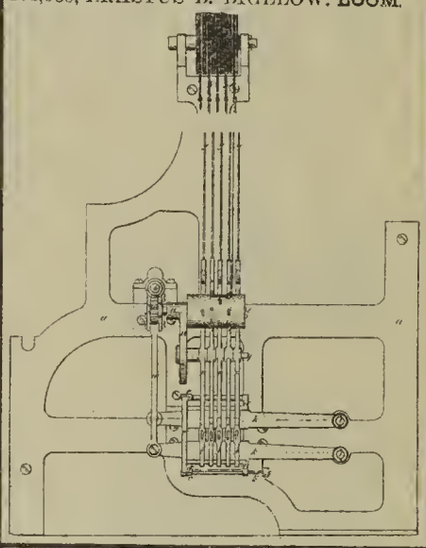
101,086, JAMES C. BEDDOE.
JOHN S. COON.
CREAM-HEATER.



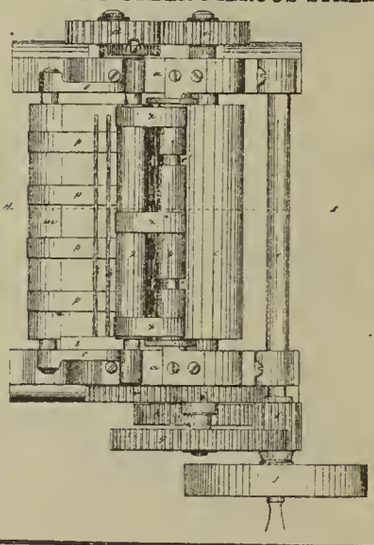
101,087, ALVA BELCHER.
WASHING-MACHINE.



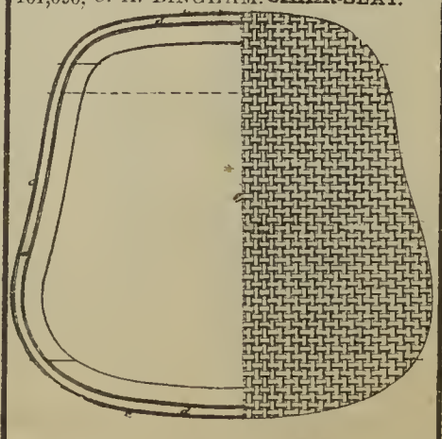
101,088, ERASTUS B. BIGELOW. LOOM.



101,089. ERASTUS B. BIGELOW.
MACHINE FOR CRUSHING RAMIE AND OTHER FIBROUS STALKS.

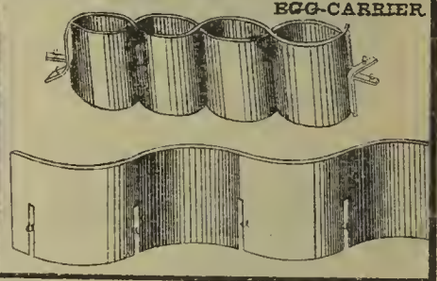


101,090, O. A. BINGHAM. CHAIR-SEAT.



101,091,
C. C. BROWN.
CHURNS.

101,092, ABNER H. BRYANT.
EGG-CARRIER.



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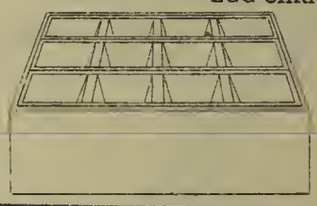
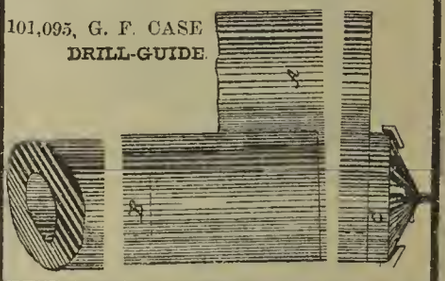
EGG-CARRIERS.



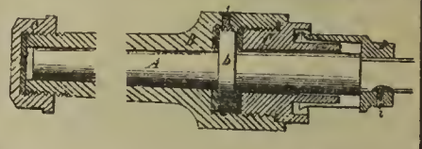
101,094, EDGAR D. BURRILL.
MEDICAL COMPOUND.

101,095, G. F. CASE.
DRILL-GUIDE.

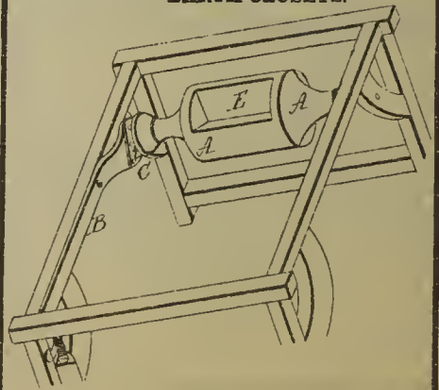


101,096 GEORGE W. CHATFIELD.
MEDICINE OR COUGH-SIRUP.

101,097, WM. A. CLARK.
CARRIAGE-AXLES.

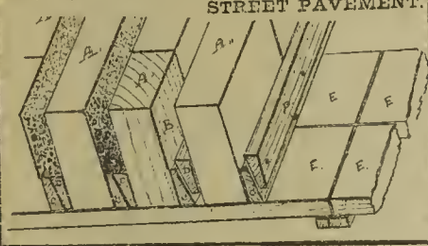


101,098, W. R. C. CLARK.
EARTH-CLOSETS.



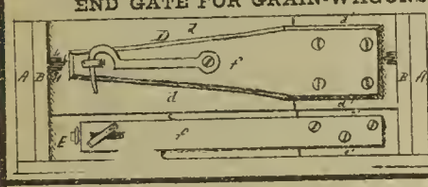
101,099, WILLIAM CLEMSON.
SAW-SWAGES.

101,100, D. C. COLBY.
STREET PAVEMENT.

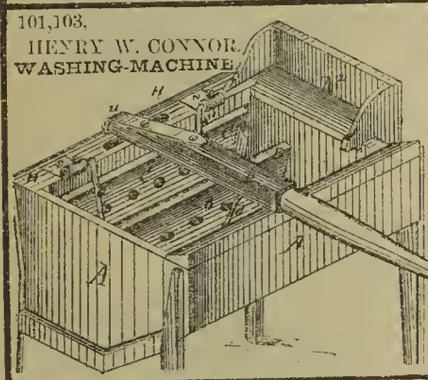


101,101,
JAS. R. COLE. COMPOSITION FOR THE MANUFACTURE OF TOBACCO PIPES, STEMS, AND CIGAR-HOLDERS.

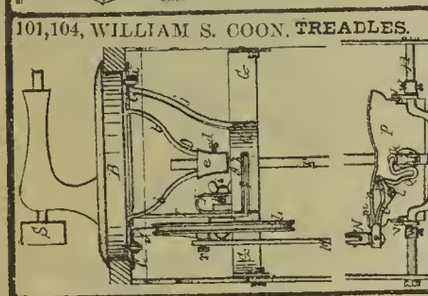
101,102, CHARLES H. COMSTOCK.
END GATE FOR GRAIN-WAGONS.



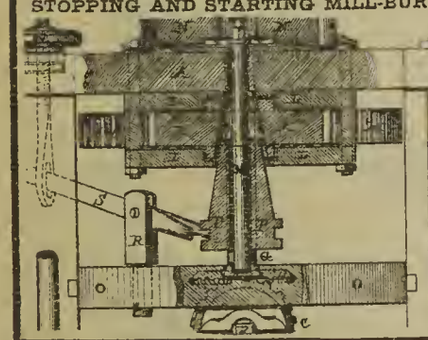
101,103,
HENRY W. CONNOR.
WASHING-MACHINE.



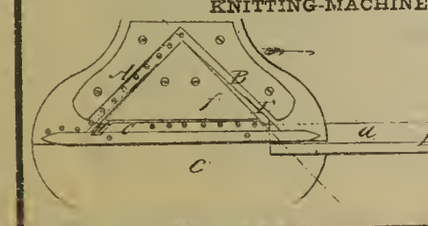
101,104, WILLIAM S. COON. TREADLES.



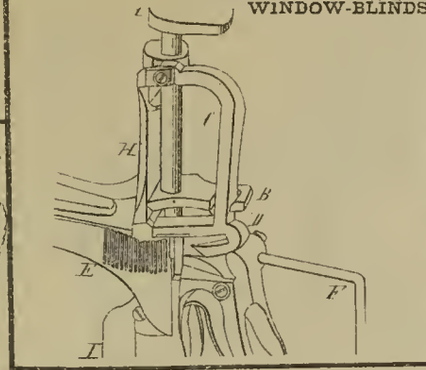
101,105, WILLIAM CRAWFORD.
SAMUEL CLARKE.
STOPPING AND STARTING MILL-BURS.



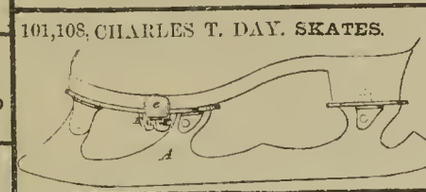
101,106, ANTHONY G. DAVIS.
CHARLES W. BLAKESLEE.
ALPHEUS N. ALLEN.
KNITTING-MACHINES.



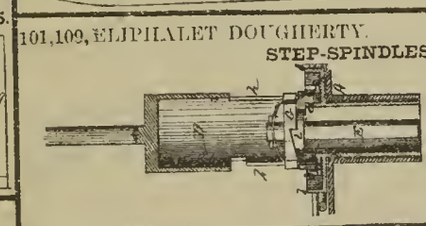
101,107, BIRAM C. DAVIS.
MACHINE FOR WIRING WINDOW-BLINDS.



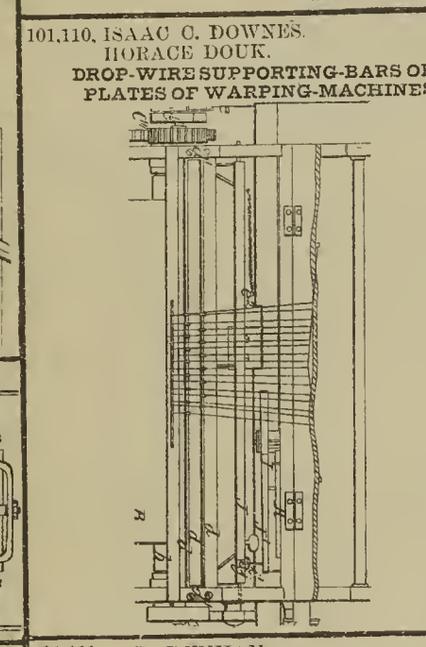
101,108, CHARLES T. DAY. SKATES.



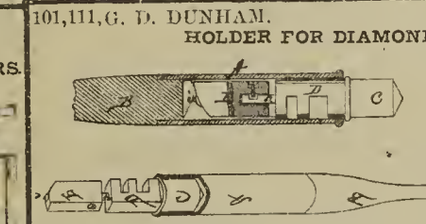
101,109, ELIPHALET DOUGHERTY.
STEP-SPINDLES.



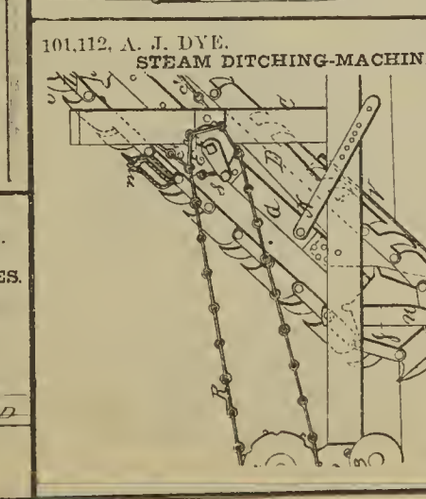
101,110, ISAAC C. DOWNES.
HORACE DOUK.
DROP-WIRE SUPPORTING-BARS OR PLATES OF WARPING-MACHINES.



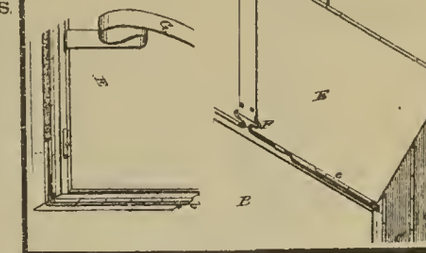
101,111, G. D. DUNHAM.
HOLDER FOR DIAMONDS.



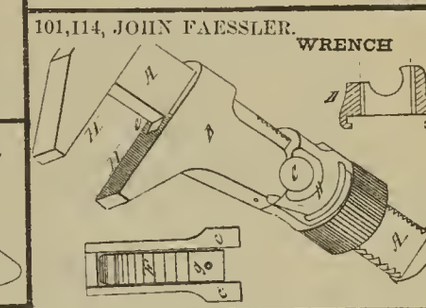
101,112, A. J. DYE.
STEAM DITCHING-MACHINES.



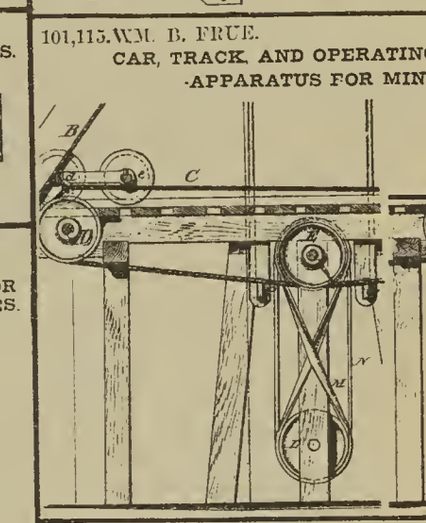
101,113, JOHN ERPELDING. LUNCH-BOX.



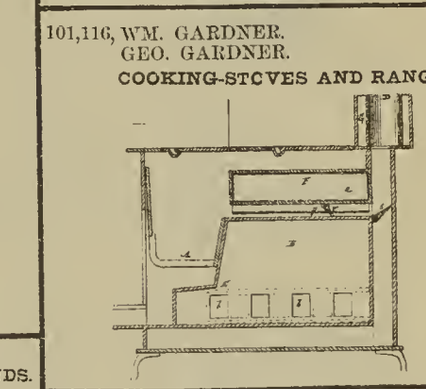
101,114, JOHN FAESSLER.
WRENCH



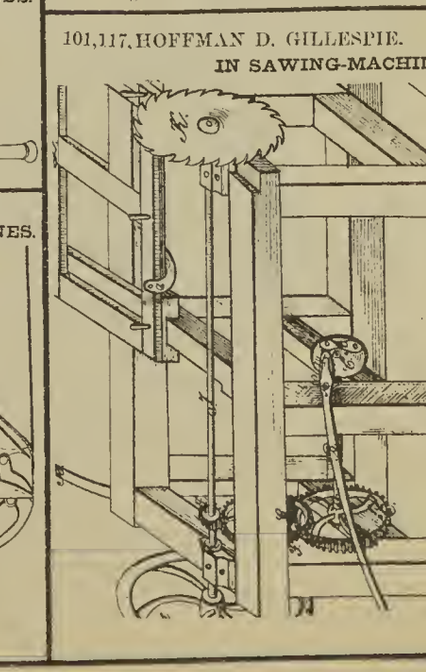
101,115, WM. B. FRUE.
CAR, TRACK, AND OPERATING-APPARATUS FOR MINES.



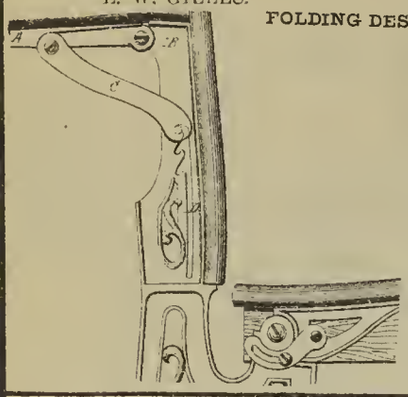
101,116, WM. GARDNER.
GEO. GARDNER.
COOKING-STOVES AND RANGES.



101,117, HOFFMAN D. GILLESPIE.
IN SAWING-MACHINES.

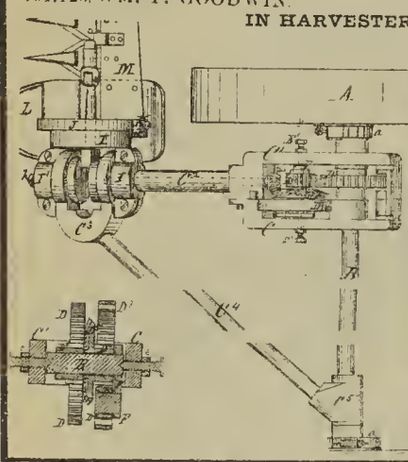


101,118. JULES WENDELL, E. W. GILLES. FOLDING DESK.

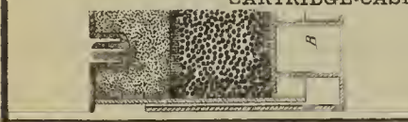


101,119. W. B. GLEASON. COMPOSITION HANDLE OR PULL.

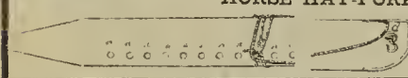
101,120. WM. F. GOODWIN. IN HARVESTERS.



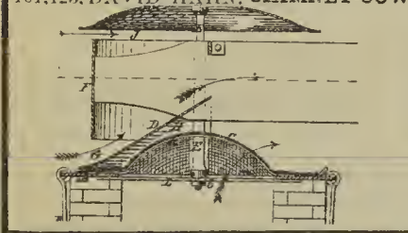
101,121. SAMUEL C. GREENE. HOLDERS FOR METALLIC CARTRIDGE-CASES.



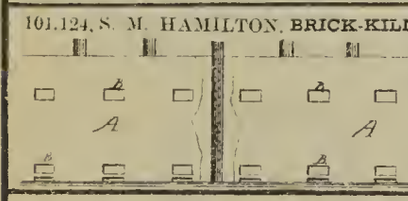
101,122. CHARLES T. GRIMES. HORSE HAY-FORKS.



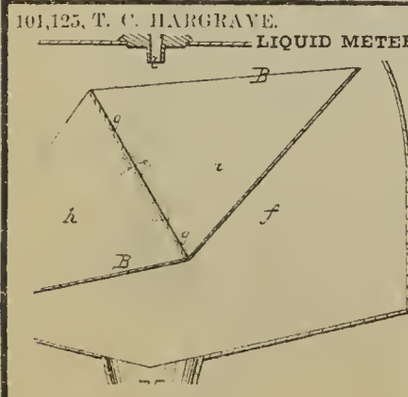
101,123. DAVID HAHN. CHIMNEY-COWL.



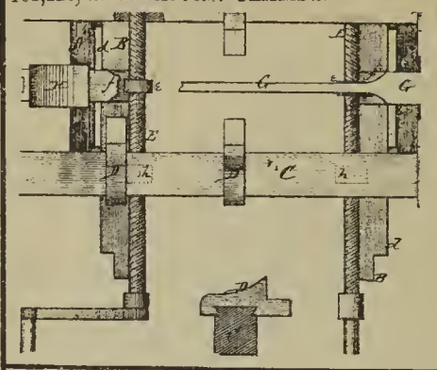
101,124. S. M. HAMILTON. BRICK-KILNS.



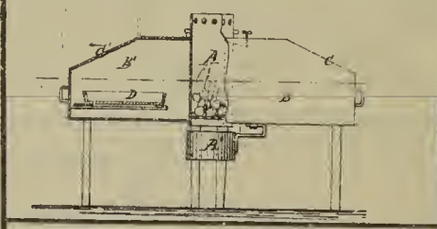
101,125. T. C. HARGRAVE. LIQUID METERS.



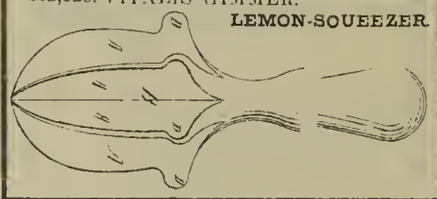
101,126. E. B. HAYES. CLAMPS.



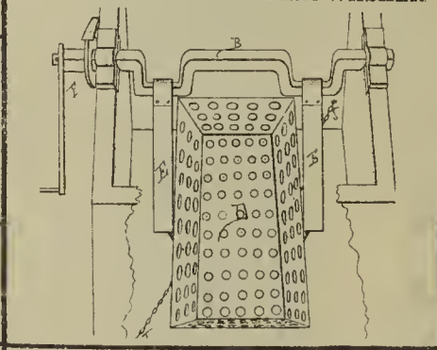
101,127. P. W. HERTICK. COOKING-STOVES.



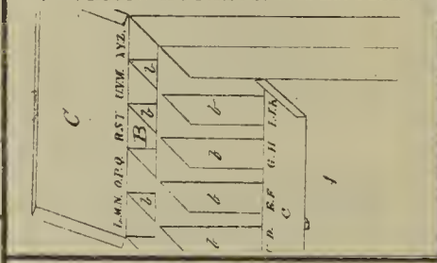
101,128. VITALIS HIMMER. LEMON-SQUEEZER.



101,129. MARY HOBSON. DISH-WASHER.

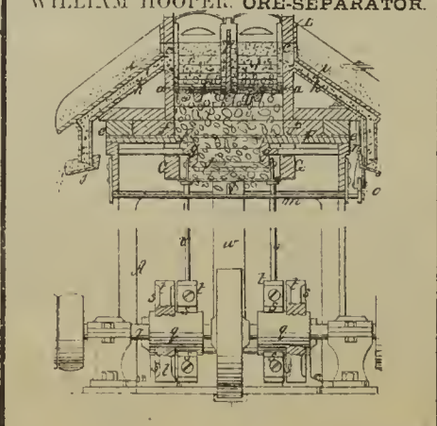


101,130. AMOS HOCKETT. PAPER-FILES.

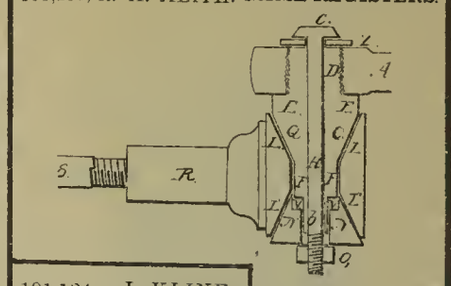


101,131. H. A. HOGEL. FERTILIZER.

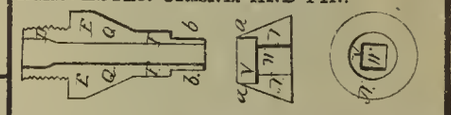
101,132. WILLIAM HOOPER. ORE-SEPARATOR.



101,133. E. H. KEITH. GAME-REGISTERS.

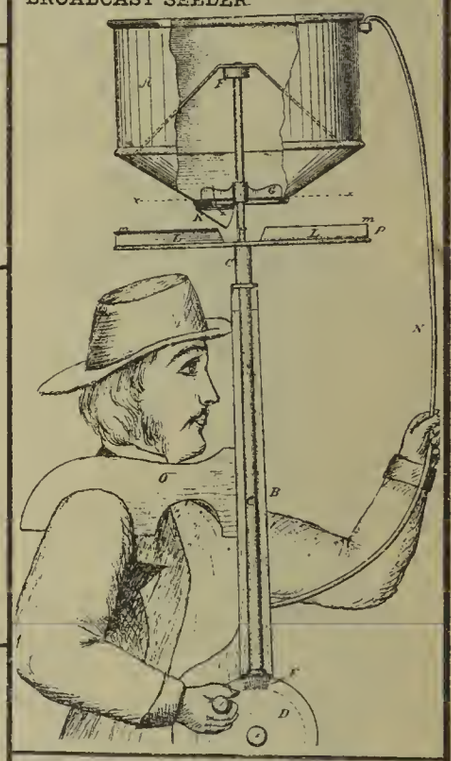


101,134. J. KLINE. HARVESTER CRANK AND PIN.

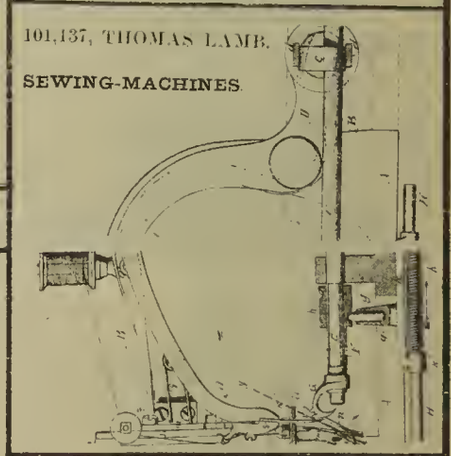


101,135. HENRY KNAPP. TREE-PROTECTORS.

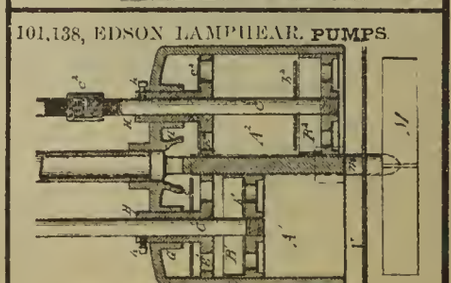
101,136. J. C. KURTZ. BROADCAST SEEDER.



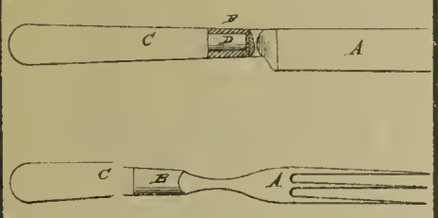
101,137. THOMAS LAMB. SEWING-MACHINES.



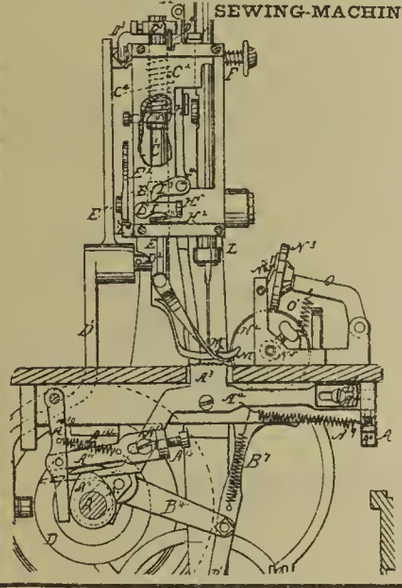
101,138. EDSON LAMPHEAR. PUMPS.



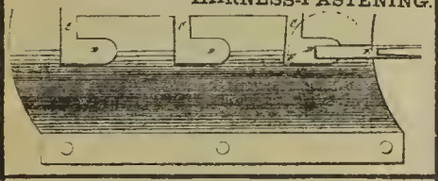
101,139, E. G. LAMSON. **TABLE-CUTLERY.**



101,140, RALPH LAWYER.
JOHN C. GASTEN.
SEWING-MACHINE.

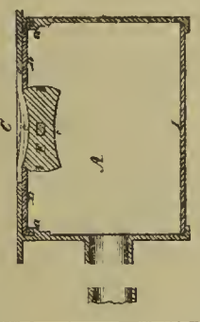


101,141 SHERROD S. LITTLE.
HENRY P. WESTCOTT
HARNESS-FASTENING.

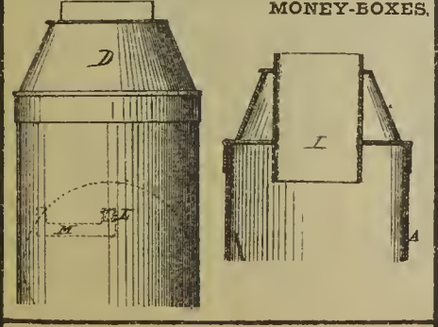


101,142. HENRY LOEWENBERG.
DIES FOR THE MANUFACTURE OF IMITATION-STRAW GOODS

101,143, A. G. MANN. **TUYERE.**

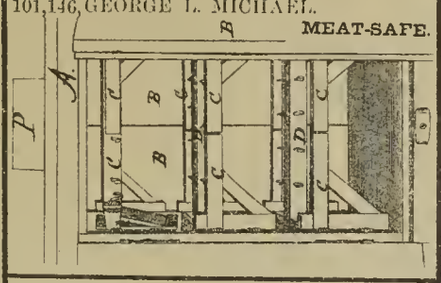


101,144, GEORGE W. McDANIEL.
MONEY-BOXES.

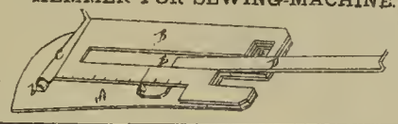


101,145, JNO. A. McKINNON.
MEDICAL COMPOUND FOR THE CURE OF COLIC.

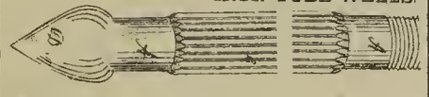
101,146, GEORGE L. MICHAEL.
MEAT-SAFE.



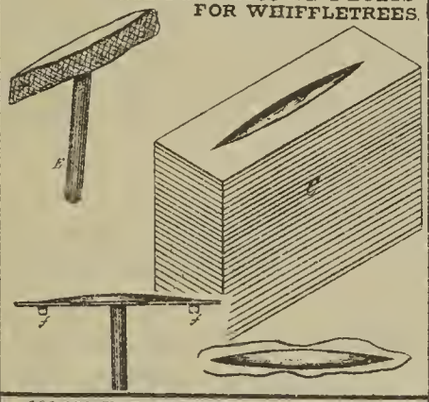
101,147, CLARK MOREHOUSE.
HEMMER FOR SEWING-MACHINE.



101,148, ROBERT M. MORRILL.
SAND-SCREENS FOR IRON TUBE-WELLS.

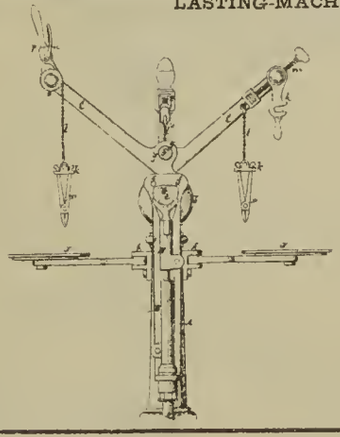


101,149, F. B. MORSE.
DIE FOR FORMING T-BOLTS FOR WHIFFLETREES.

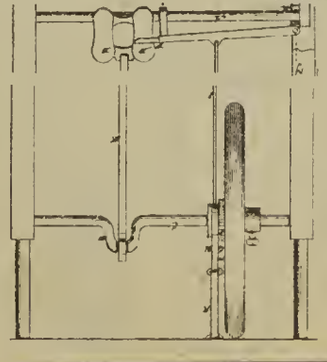


101,150, F. B. MORSE.
CARRIAGE-STEPS

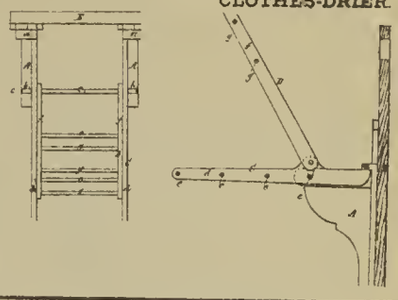
101,151, MOYON.
EGNE. LEMERCIER.
LASTING-MACHINE



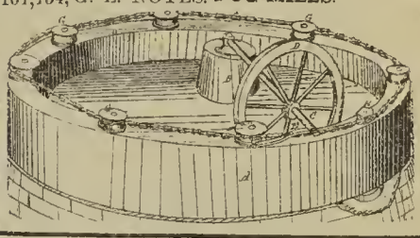
101,152, ORWELL H. NEEDHAM.
TREADLES.



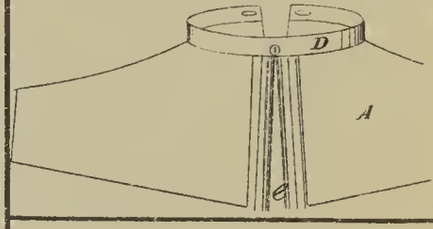
101,153, FREDERICK S. NETTLETON.
ERWIN J. FULLER.
CLOTHES-DRIER.



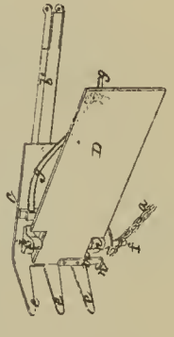
101,154, G. E. NOYES. **PUG-MILLS.**



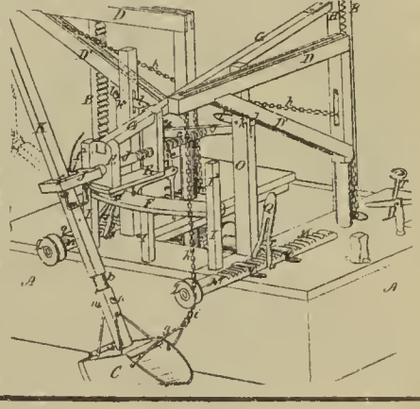
101,155, MOSES PALMER, JR.
SHIRT-YOKES.



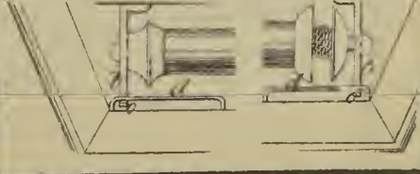
101,156, MARIE A. PARTRIDGE,
HARVESTER-RAKES.



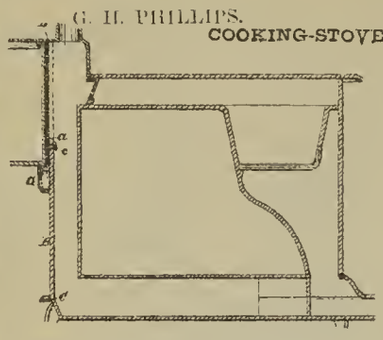
101,157, WALTER H. PEARSON.
DREDGING AND EXCAVATING-MACHINES.



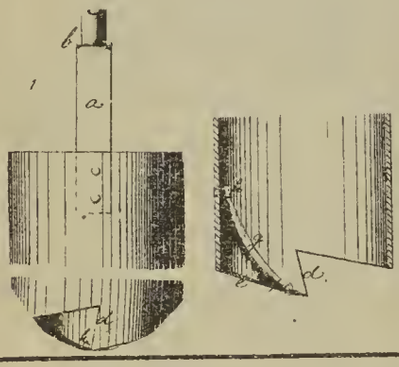
101,158, ANTHONY PEPLE.
MODE OF ATTACHING CORNICES TO WINDOWS.



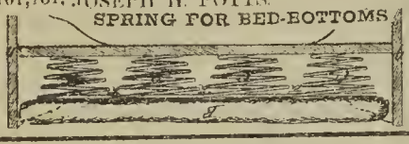
101,159. G. H. PHILLIPS. COOKING-STOVES



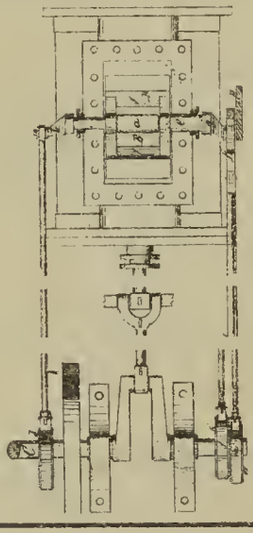
101,160. S. POPE. EARTH AUGER



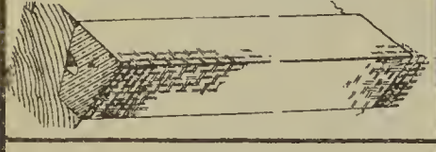
101,161. JOSEPH H. POTTS. SPRING FOR BED-BOTTOMS



101,162. JOSEPH RANDLES. VARIABLE CUT-OFF.

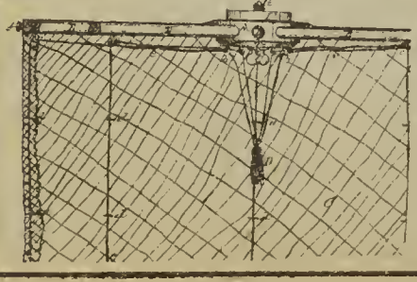


101,163. CHAS. L. RICHARDS. INDIA-RUBBER BILLIARD-CUSHIONS.

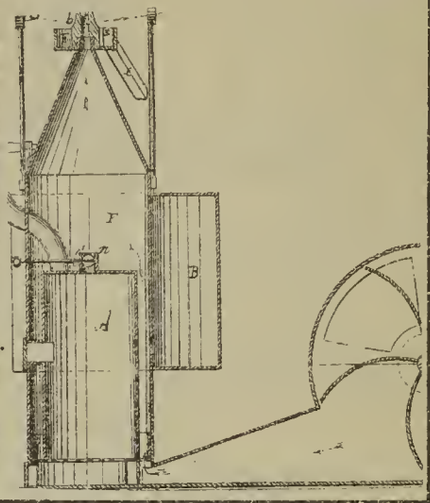


101,164. JOHN G. ROBINSON. HUB-REAMER.

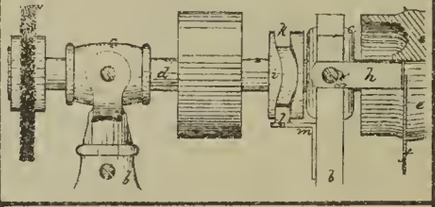
101,165. A. M. RODGERS. CANOPY FOR BEDSTEADS.



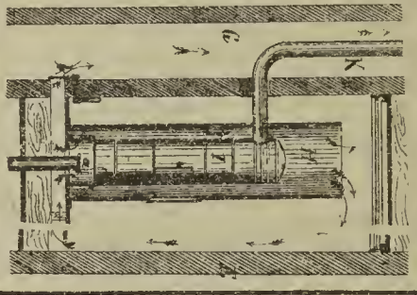
101,166. RICHARD ROSOCHACKI. APPARATUS FOR PITCHING BARRELS.



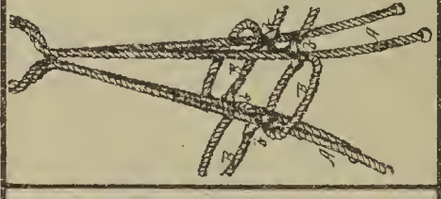
101,167. J. H. SAWYER. C. KENISTON. MACHINE FOR BURNISHING BOOT AND SHOE-HEELS



101,168. G. F. SCHULZE. HEATING AND VENTILATING.

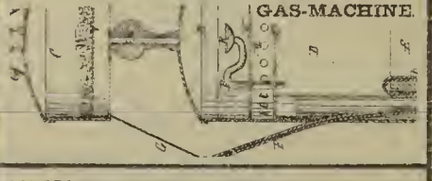


101,169. DANIEL SHERWOOD. TABLE-CASTER

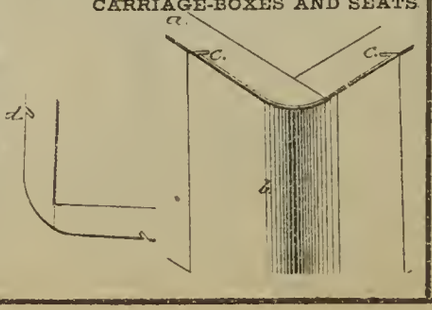


101,170. JOHN P. SIMONDS. INKS FOR PRINTING STAMPS, DRAFTS, AND CHECKS.

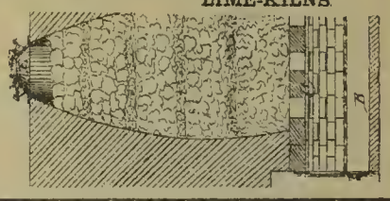
101,171. H. JULIUS SMITH. ELECTRO-HYDROCARBON GAS-MACHINE.



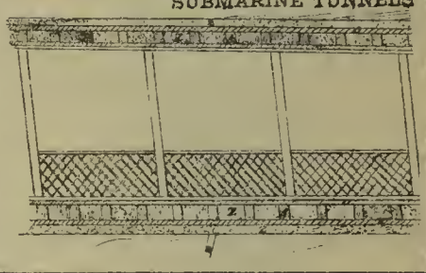
101,172. ORSON H. SMITH. WILLET FISHER. METALLIC CORNER-SUPPORTS FOR CARRIAGE-BOXES AND SEATS.



101,173. R. A. SMITH. LIME-KILNS.

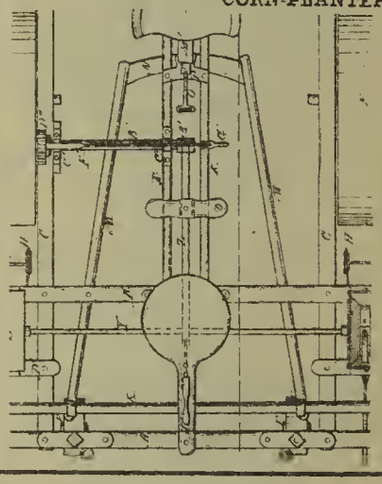


101,174. CHARLES SPEAR. SUBMARINE TUNNELS

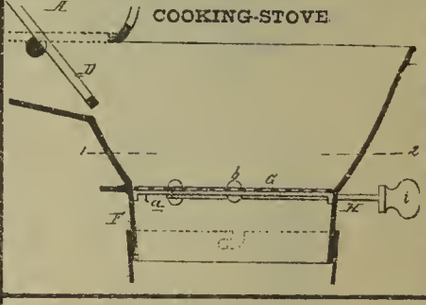


101,175. DANIEL SPILL. MANUFACTURE OF XYLOIDINE AND ITS COMPOUND.

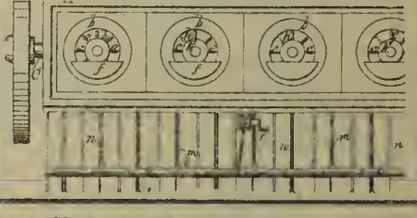
101,176. PHILIP S. STARNES. CORN-PLANTERS.



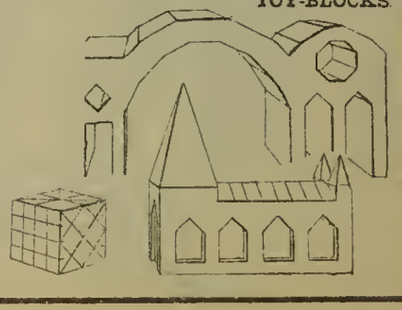
101,177. WALTER S. STEVENSON. COOKING-STOVE.



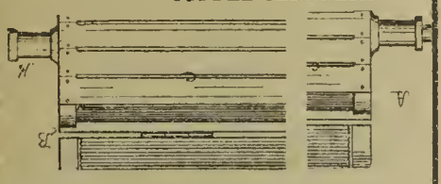
101,178. W. D. STROUD. SEEDERS AND CULTIVATORS COMBINED.



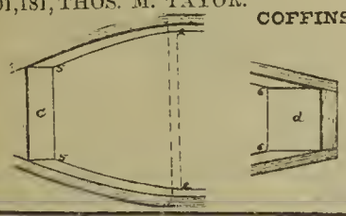
101,179. A. B. SWIFT. CONNECTING ARCHITECTURAL TOY-BLOCKS.



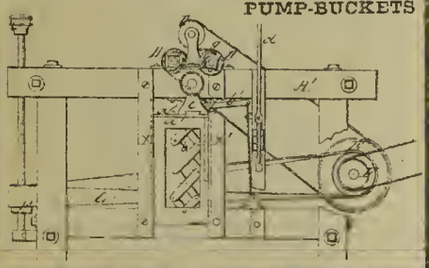
101,180. SAML. G. TAYLOR
COFFEE-CLEANERS.



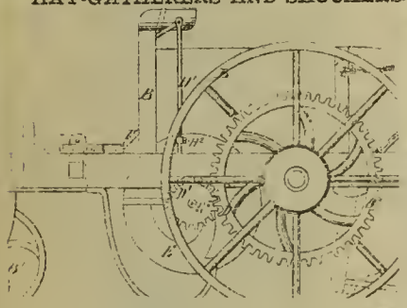
101,181, THOS. M. TAYOR.
COFFINS



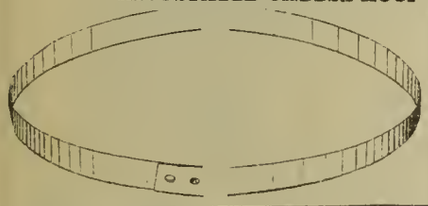
101,182, JOHN F. TEMPLE.
MACHINE FOR MAKING PUMP-BUCKETS



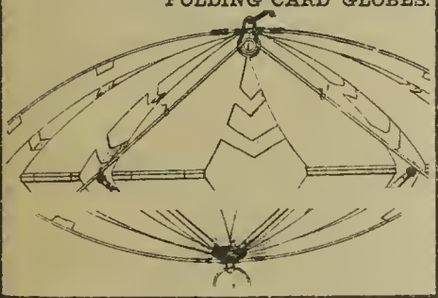
101,183, CLARK M. TERRELL.
HAY-GATHERERS AND SHOCKERS.



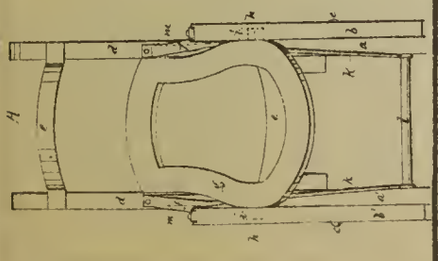
101,184, WM. P. THOMSON.
ADJUSTABLE CHEESE-HOOP



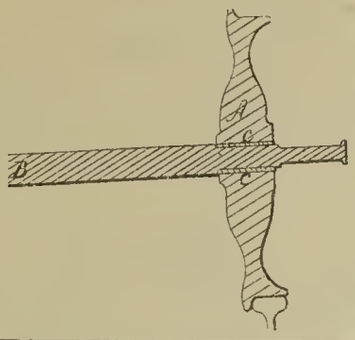
101,185 DENNIS TOWNSEND.
FOLDING CARD GLOBES.



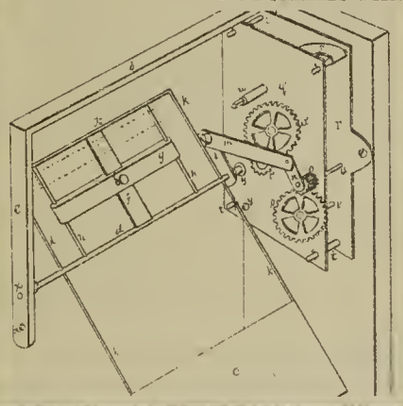
101,186, JOSEPH H. TRAVIS.
FOLDING CHAIR.



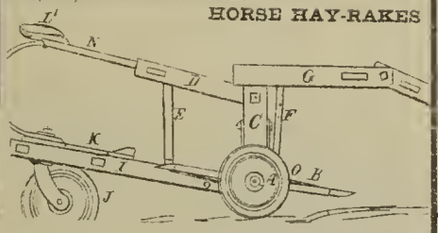
101,187, LUCIUS E. TRUESDELL.
RAILROAD-CAR AXLES.



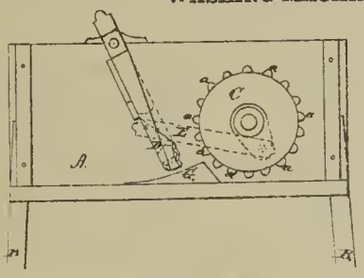
101,188, S. J. TUCKER.
JOHN H. ROSE.
AUTOMATIC FAN.



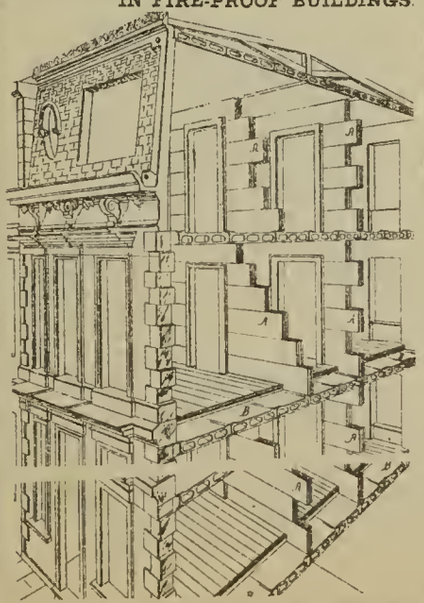
101,189, CYRUS TYLER.
HORSE HAY-RAKES



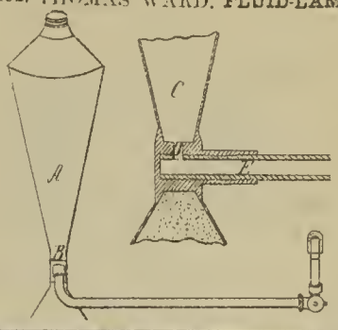
101,190, JOHN D. VAN DUSEN.
WASHING-MACHINE



101,191, ANTHONY WANNER.
IN FIRE-PROOF BUILDINGS.

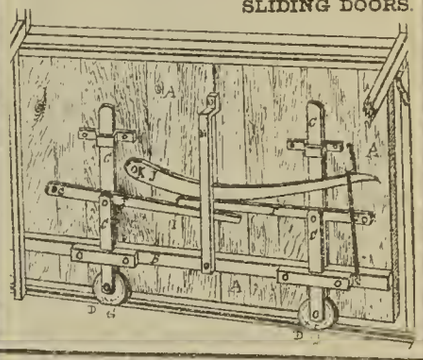


101,192, THOMAS WARD. **FLUID-LAMPS.**

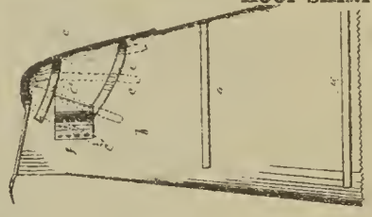


101,193, ALEXANDER WARFIELD.
MANUFACTURE OF SOAP.

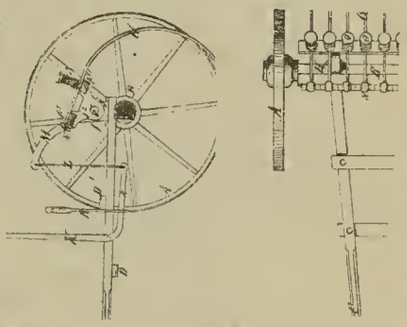
101,194, WM. R. WATERHOUSE.
SLIDING DOORS.



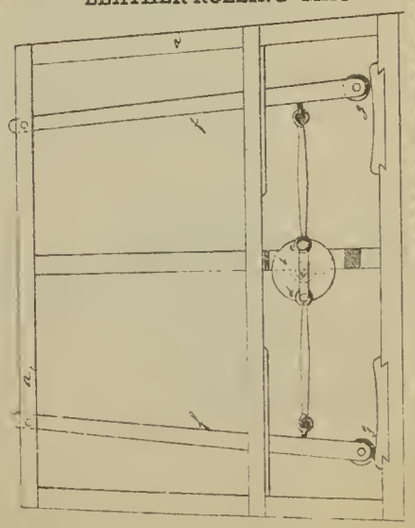
101,195, JULIUS WATERMAN.
HOOP-SKIRTS.



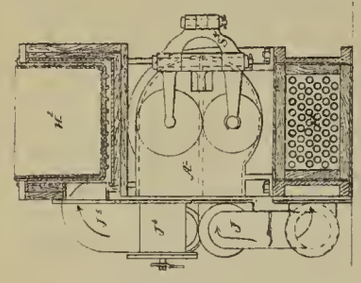
101,196, GODFRIED WEILAND.
HORSE HAY-RAKES.



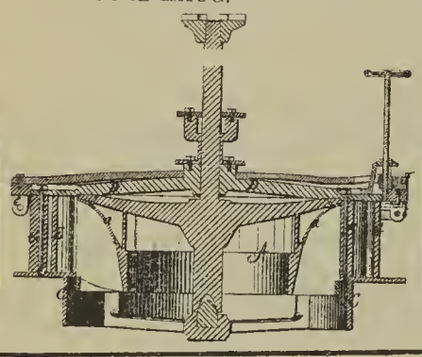
101,197, H. J. WESTON.
LEATHER-ROLLING MACHINE.



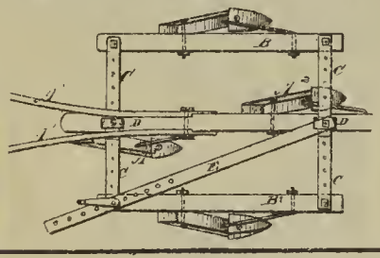
101,198 FRANZ WINDHAUSEN. ICE-MACHINES.



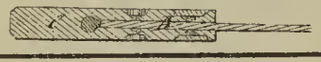
101,199, A. N. WOLF. JOEL HAUG. WATER-WHEELS.



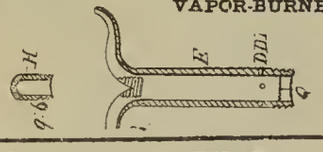
101,200, JOHN WOLPERT. COMBINED PLOW AND CULTIVATOR.



101,201, W. D. WOODS. KNIFE-HANDLES.



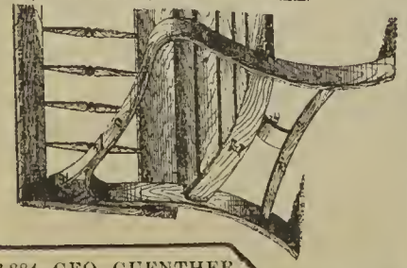
101,202, ALBERT F. ZIEGLER. VAPOR-BURNERS



101,203, FREDERICK WITTRAM. DRESS-PROTECTORS.

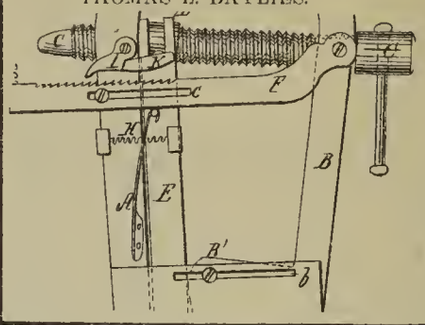
3,881, THEODORE BRINKMANN. FIRE AND WATER-PROOF PAINT AND CEMENT.

3,882, WESLEY CHASE. SETTEE.

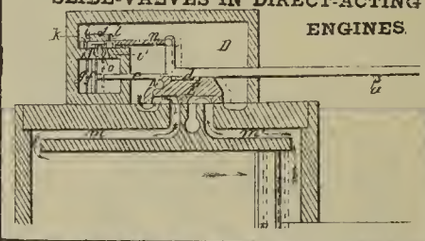


3,884, GEO. GUENTHER. E. H. NEYMANN. MANUFACTURE OF GLUE.

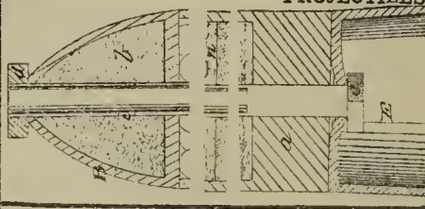
3,883, EDWIN CRAWLEY. THOMAS L. BAYLIES. VISE.



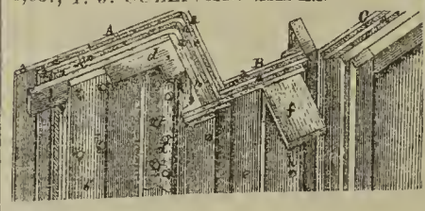
3,885, GEO. W. HUBBARD. WM. E. CONANT. SLIDE-VALVES IN DIRECT-ACTING ENGINES.



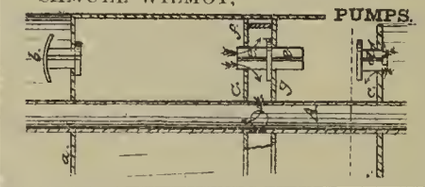
3,886, JOHN D. RICHARDS. PROJECTILES.



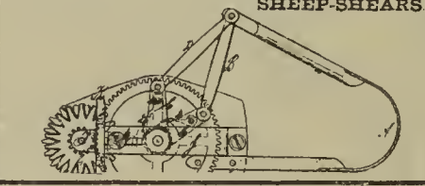
3,887, T. J. SULLIVAN. SAFES.



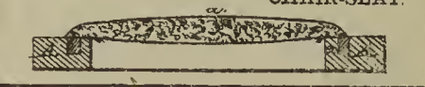
3,888, FORRESTER MANUFACTURING CO. SAMUEL WILMOT. PUMPS.



3,889, ROBT. M. WILDER. HIRAM B. ROBINSON. SHEEP-SHEARS.

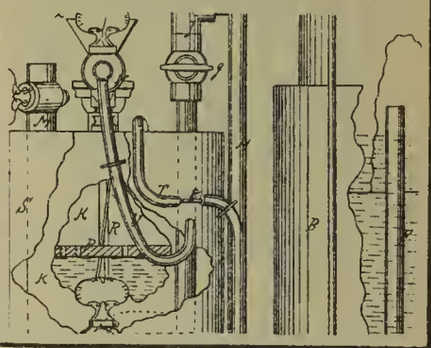


3,890. GEO. C. WINCHESTER. CHAIR-SEAT.

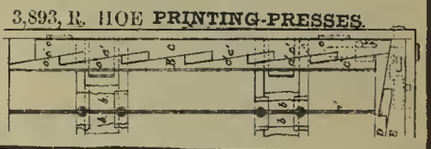


3,891. E. F. ANDERSON. TEACHERS' TOY.

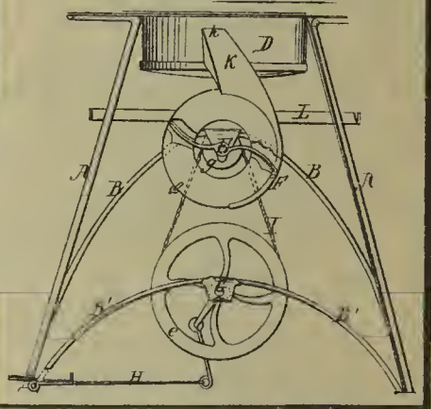
3,892, ARTHUR BARBARIN. APPARATUS FOR CARBURETING AIR AND GAS.



3,893, R. HOE. PRINTING-PRESSES.

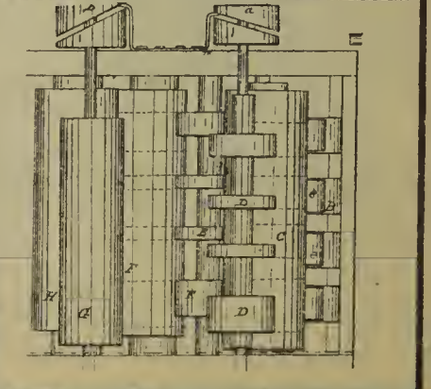


3,894, A. THOMAS. PORTABLE FORGING-APPARATUS.



3,895, CALVIN G. UDELL. STEP-LADDERS.

3,896, VALENTINE WOOD. INKING-APPARATUS FOR PRINTING-PRESSES. J. E. SUITTERLIN. VALENTINE WOOD.



ILLUSTRATIONS OF PATENTS

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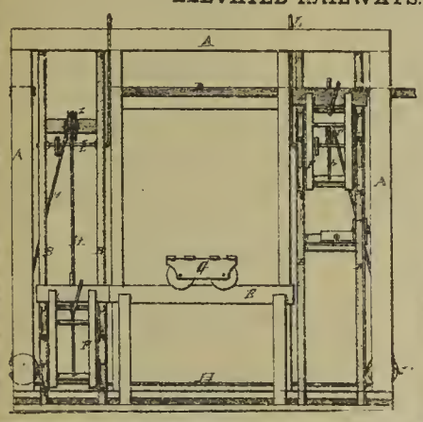
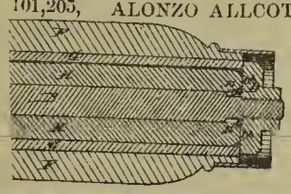
THE UNITED STATES PATENT OFFICE

MARCH 29, 1870.

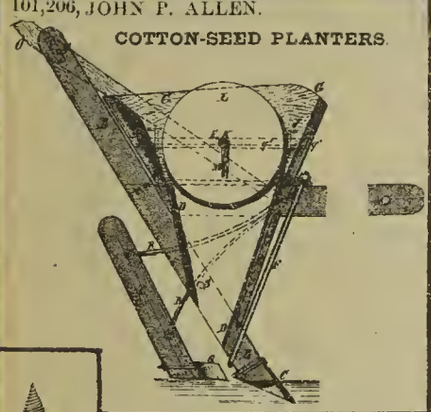
101,204, JOHN M. ABBOTT.
ELEVATED RAILWAYS.



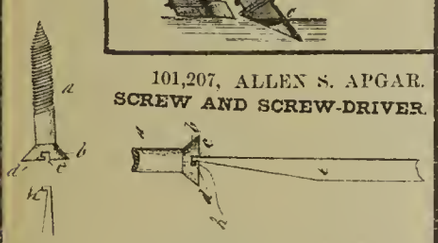
ANTI-FRICTION CARRIAGE-AXLES.
101,205, ALONZO ALLCOTT.



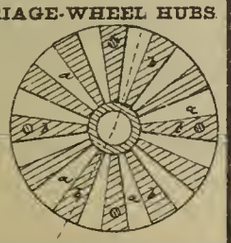
101,206, JOHN P. ALLEN.
COTTON-SEED PLANTERS.



101,207, ALLEN S. APGAR.
SCREW AND SCREW-DRIVER.

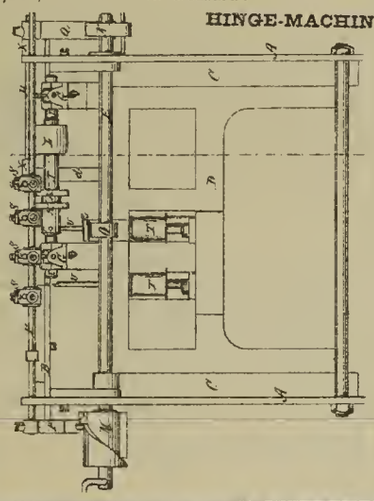


101,208, W. J. ARRINGTON.
CARRIAGE-WHEEL HUBS.

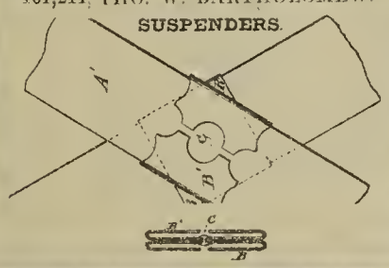


101,209, **KNIVES.**
NOYES E. BABCOCK.
GEORGE D. GOODSELL.

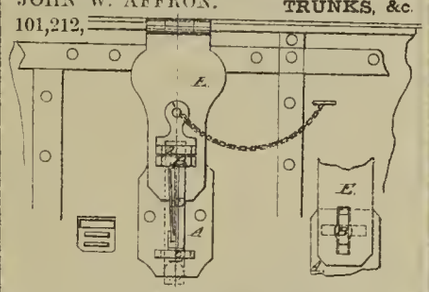
101,210, JOSEPH H. BAIRD.
HINGE-MACHINE.



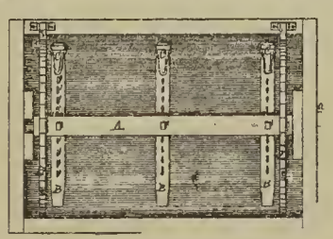
101,211, THO. W. BARTHOLOMEW.
SUSPENDERS.



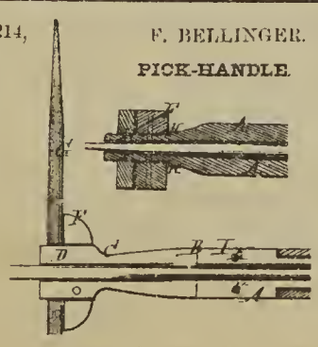
S. THOMPSON BARTON. **HASPS FOR**
JOHN W. AFFRON. **TRUNKS, &c.**
101,212,



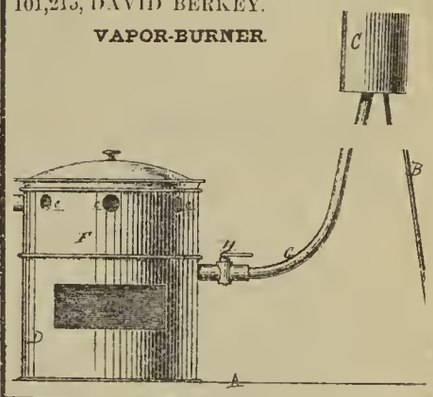
101,213, W. B. ROWLAND, OTIS W. BEAN
APPARATUS FOR TANNING LEATHER.



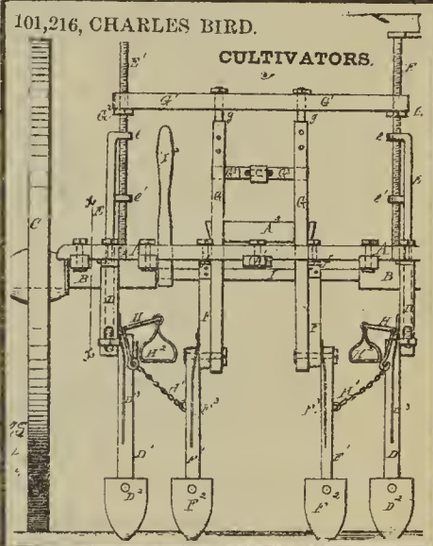
101,214, F. BELLINGER.
PICK-HANDLE.



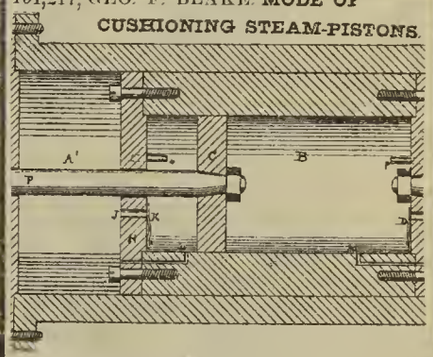
101,215, DAVID BERKEY.
VAPOR-BURNER.



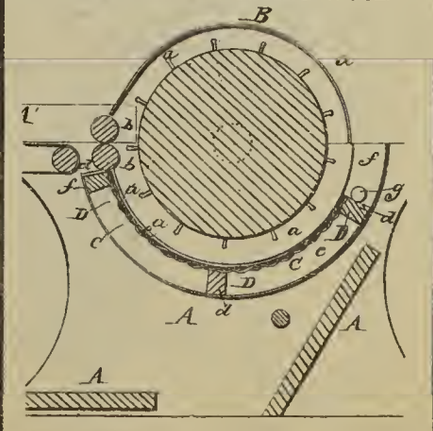
101,216, CHARLES BIRD.
CULTIVATORS.



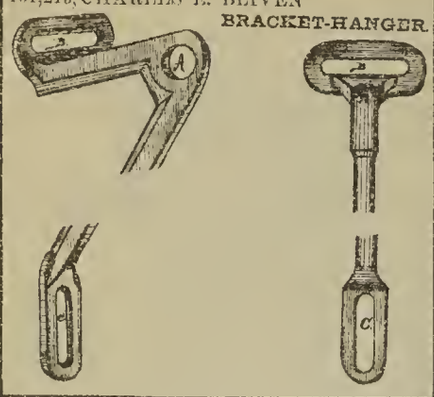
101,217, GEO. F. BLAKE. **MODE OF CUSHIONING STEAM-PISTONS.**



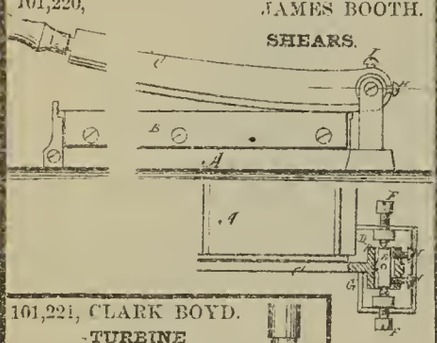
101,218, MILTON BLISS. **MACHINE FOR PICKING AND DUSTING WOOL.**



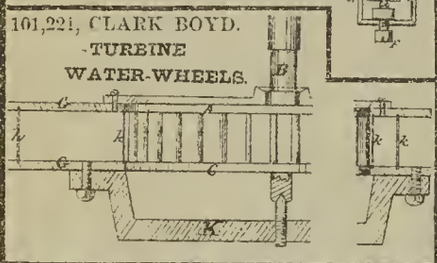
101,219, CHARLES E. BLIVEN
BRACKET-HANGER.



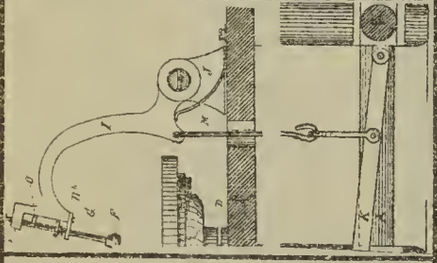
101,220, JAMES BOOTH.
SHEARS.



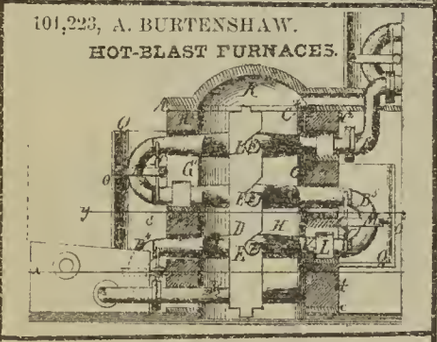
101,221, CLARK BOYD.
TURBINE WATER-WHEELS.



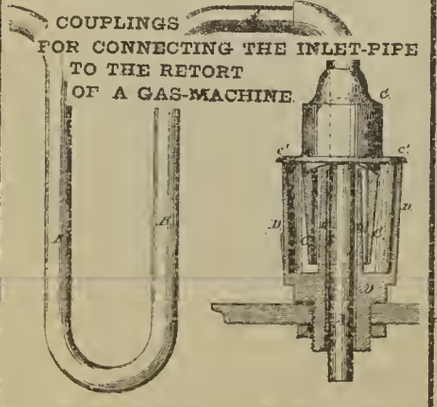
101,222, WARREN S. BURGESS.
GEORGE A. LENZI
APPARATUS FOR CUTTING PHOTOGRAPHIC PRINTS.



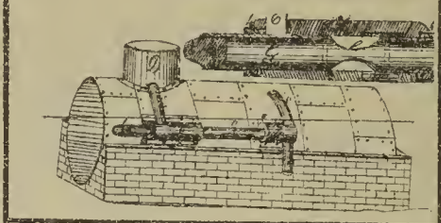
101,223, A. BURTENSHAW.
HOT-BLAST FURNACES.



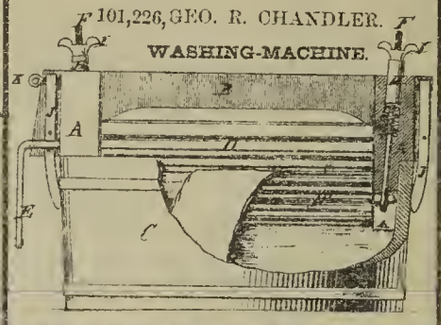
101,224, JOHN BUTLER.
COUPLINGS FOR CONNECTING THE INLET-PIPE TO THE RETORT OF A GAS-MACHINE.



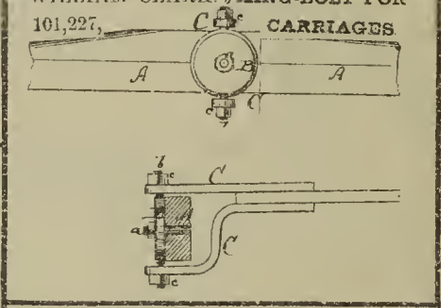
101,225, JOHN M. CASE.
STEAM-BOILER FEEDER.



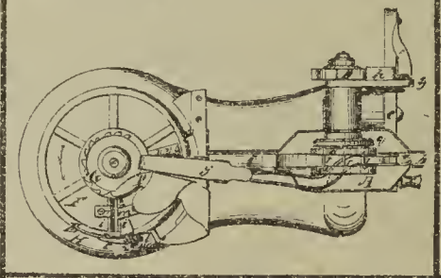
101,226, GEO. R. CHANDLER.
WASHING-MACHINE.



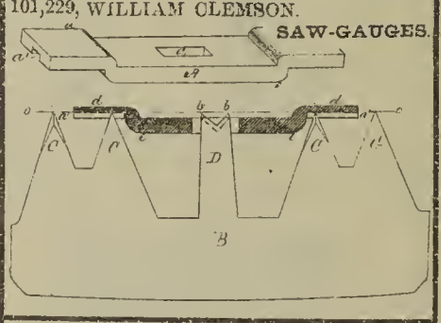
WILLIAM CLARK.
101,227, KING-BOLT FOR CARRIAGES.



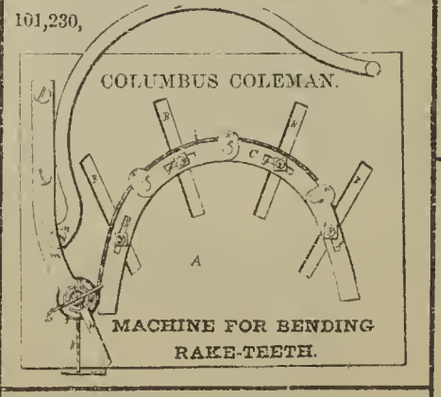
101,228, NATHAN S. CLEMENT.
MACHINE FOR NICKING SCREWS.



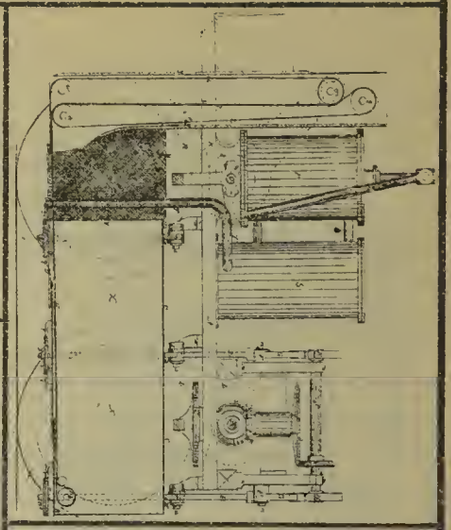
101,229, WILLIAM CLEMSON.
SAW-GAUGES.



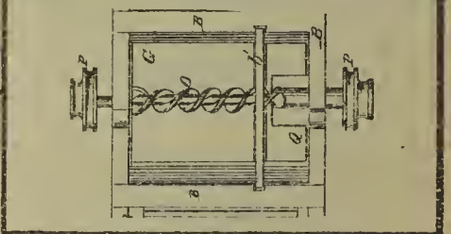
101,230,
COLUMBUS COLEMAN.
MACHINE FOR BENDING RAKE-TEETH.



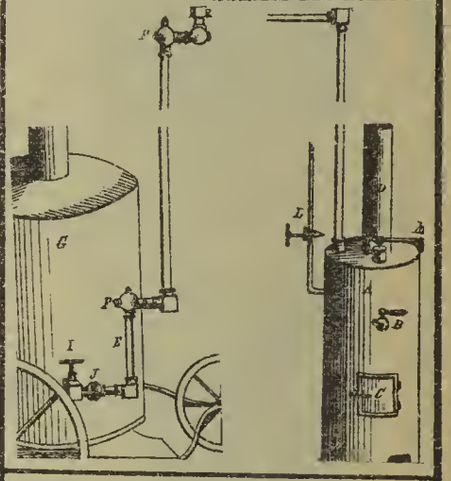
101,231, ROBERT F. COOKE.
COTTON-PICKERS.



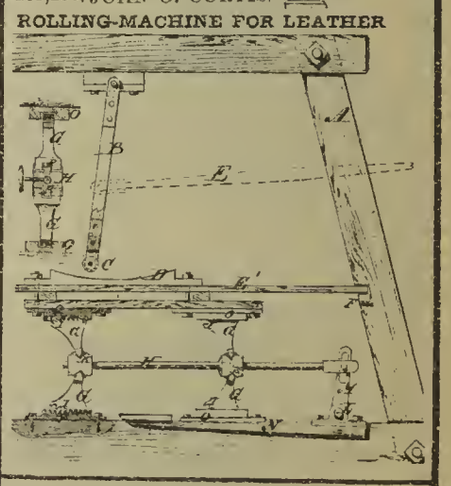
WM. W. CROOM.
101232 COTTON-SEED PLANTER, &c.



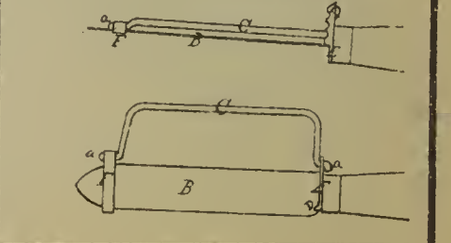
101,233, HUGH E. CURRY.
STEAM-GENERATOR.



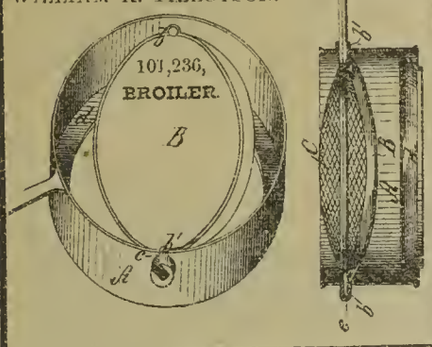
101,234, JOHN G. CURTIS.
ROLLING-MACHINE FOR LEATHER



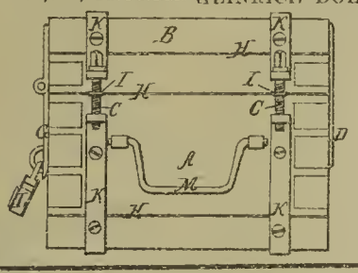
101,235, GILBERT K. DEARBORN.
KNIFE-GUARD.



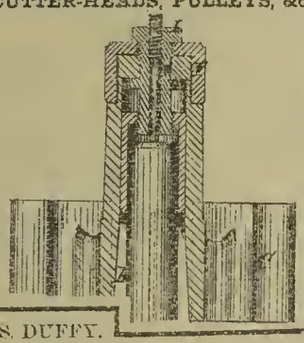
DANIEL W. DENMAN.
WILLIAM K. TILLOTSON.



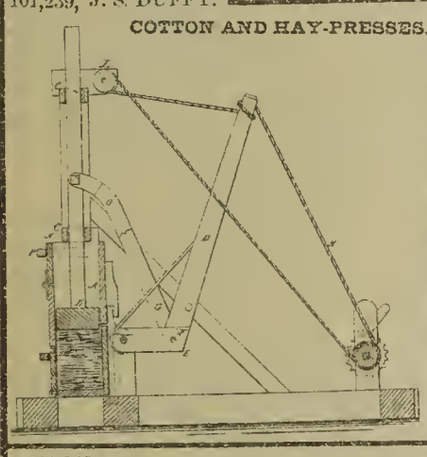
101,237, TRUNKS. HEINRICH DOERR.



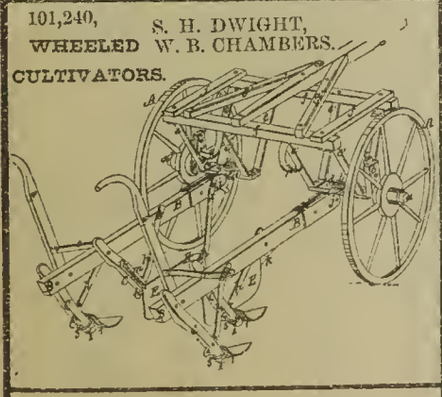
101,238, JOHN DU BOIS. FASTENING
E. F. BEUGLER.
FOR CUTTER-HEADS, PULLEYS, &c.



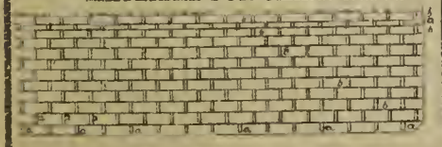
101,239, J. S. DUFFY.
COTTON AND HAY-PRESSES.



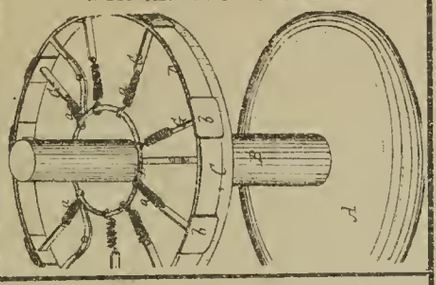
101,240, S. H. DWIGHT,
WHEELED W. B. CHAMBERS.
CULTIVATORS.



101,241, ASAHEL N. ELLIOTT.
MATERIAL FOR CHAIR-SEATS.

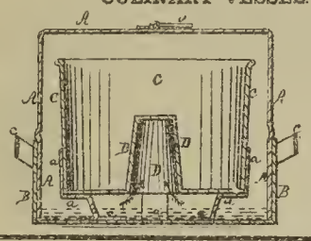


101,242, WM. B. ELLIOTT. APPARATUS
FOR SETTING UP BARRELS.

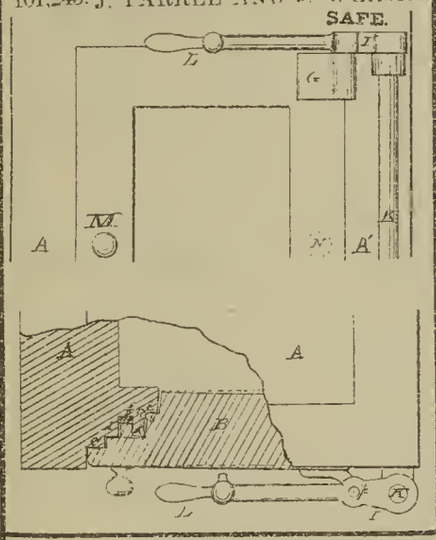


101,243, ELIHU ENGLAND. TANNING

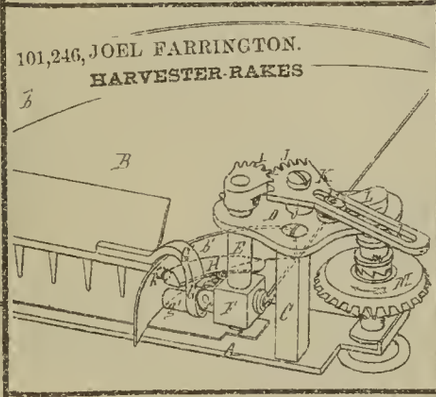
101,244, CHARLES ESTABROOKS.
CULINARY VESSEL.



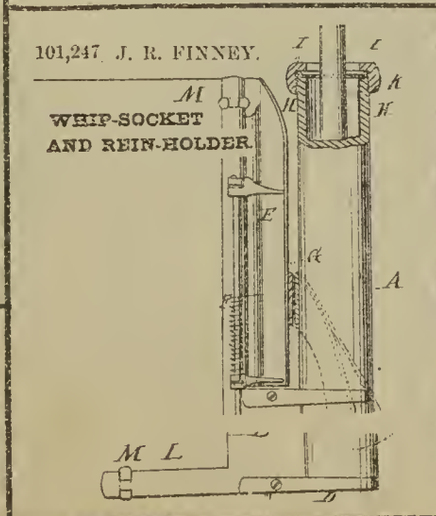
101,245. J. FARREL AND J. WEIMAR
SAFE.



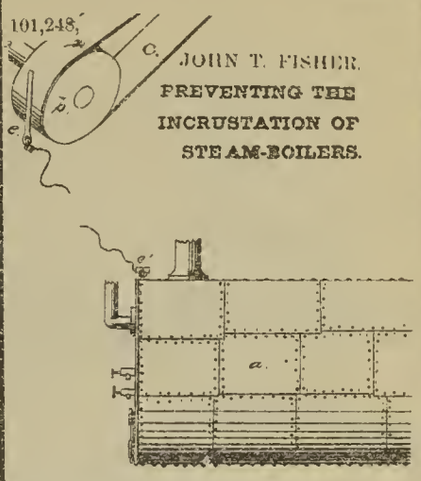
101,246, JOEL FARRINGTON.
HARVESTER-RAKES



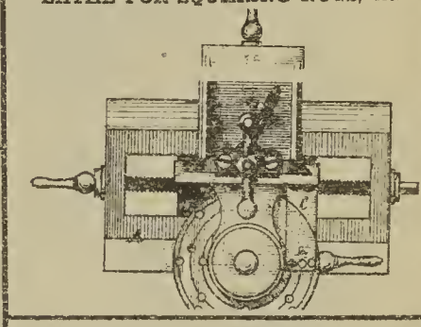
101,247. J. R. FINNEY.
WHIP-SOCKET
AND REIN-HOLDER.



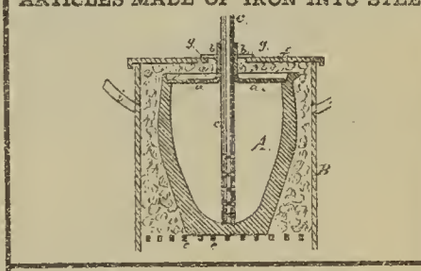
101,248, JOHN T. FISHER.
PREVENTING THE
INCRUSTATION OF
STEAM-BOILERS.



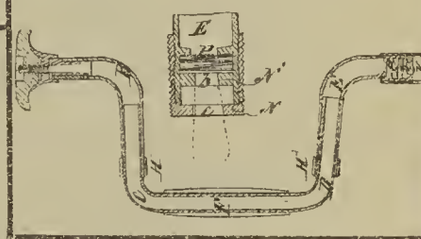
101,249, JAMES FLOWER.
LATHE FOR SQUARING NUTS, &c.



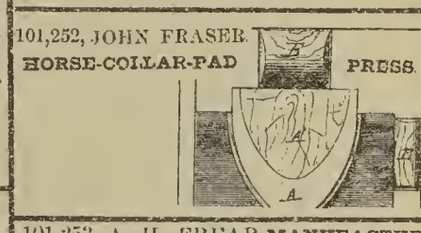
101,250, HIRAM C. FOLSOM. CONVERTING
ARTICLES MADE OF IRON INTO STEEL.



101,251, D. P. FOSTER. BIT-STOCKS.

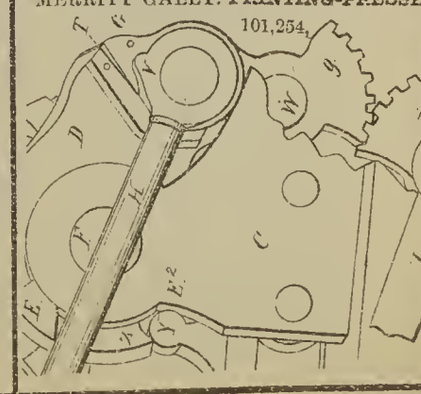


101,252, JOHN FRASER.
HORSE-COLLAR-PAD PRESS.

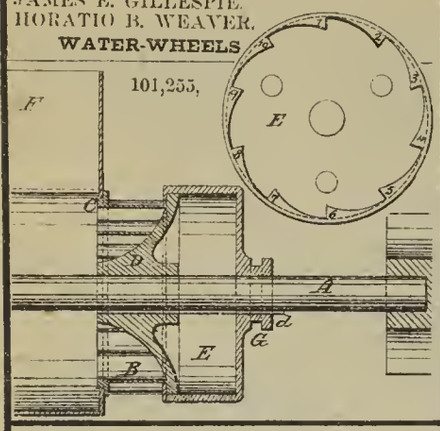


101,253. A. H. FREAR. MANUFACTURE
OF ARTIFICIAL STONE

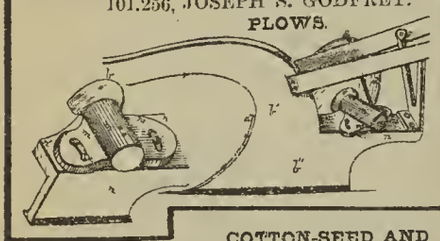
MERRITT GALLY. PRINTING-PRESSES.
101,254.



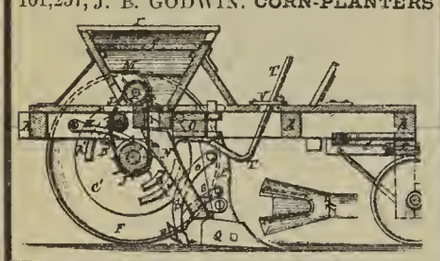
JAMES E. GILLESPIE.
HORATIO B. WEAVER.
WATER-WHEELS
101,255,



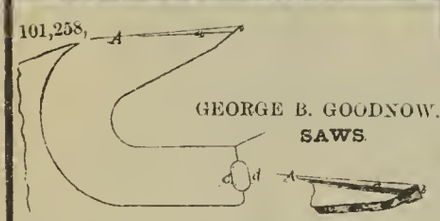
101,256, JOSEPH S. GODFREY.
PLOWS.



COTTON-SEED AND
101,257, J. B. GODWIN. **CORN-PLANTERS**

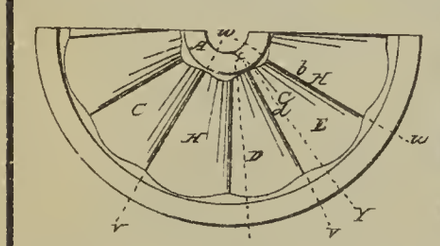


101,258,

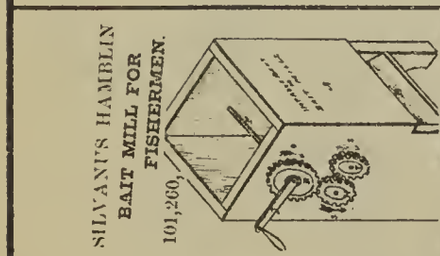


GEORGE B. GOODNOW.
SAWS.

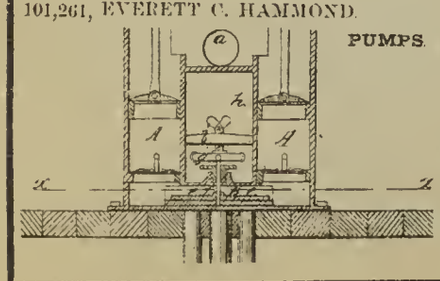
101,259, JEREMIAH D. GREEN.
WHEEL FOR RAILWAY CARS.



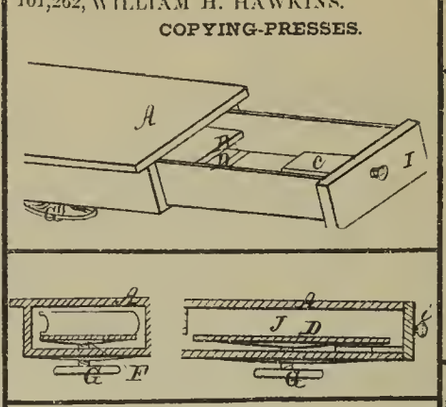
SILVANUS HAMBLIN
BAIT MILL FOR FISHERMEN.
101,260,



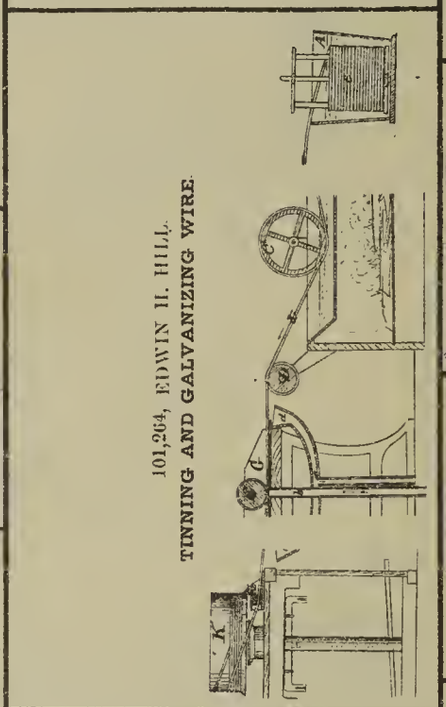
101,261, EVERETT C. HAMMOND.
PUMPS.



101,262, WILLIAM H. HAWKINS.
COPYING-PRESSES.

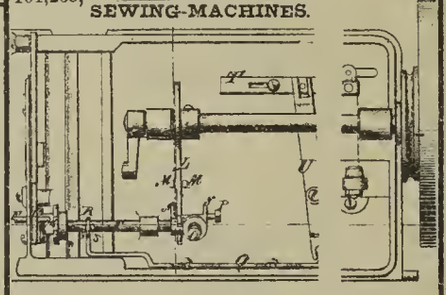


101,263, JAMES HENDERSON.
MANUFACTURE OF IRON AND STEEL.

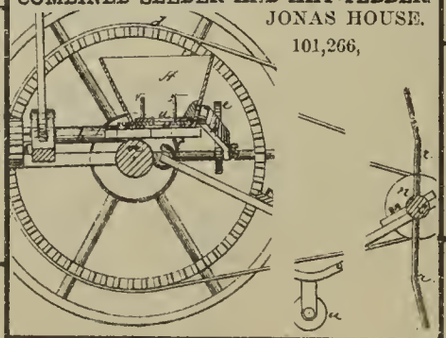


101,264, EDWIN H. HILL.
TINNING AND GALVANIZING WIRE.

101,265, J. I. HIRSCHBUHL.
SEWING-MACHINES.



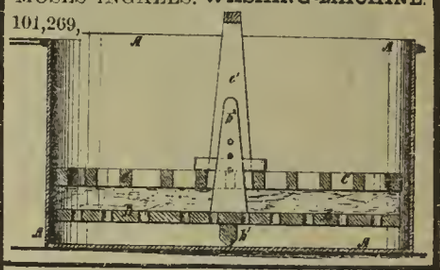
COMBINED SEEDER AND HAY-TEDDER.
JONAS HOUSE.
101,266,



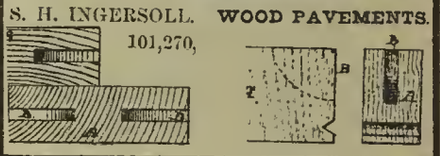
101,267, LIVERUS HULL.
IMPROVED SPRING-BED.

101,268, THEODORE HYATT.
ASBESTOS FILLING FOR FIRE-PROOF SAFES AND OTHER STRUCTURES.

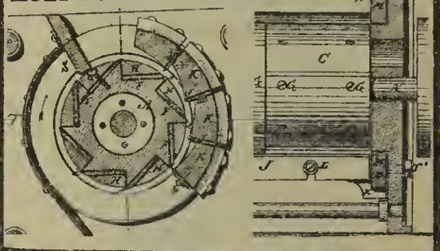
MOSES INGALLS. **WASHING-MACHINE.**
101,269,



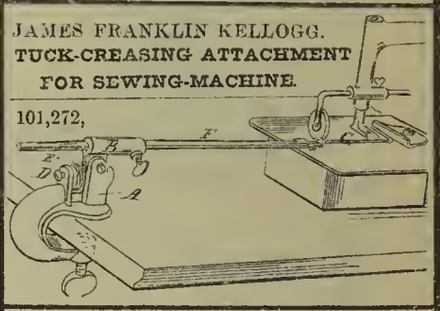
S. H. INGERSOLL. **WOOD PAVEMENTS.**
101,270,



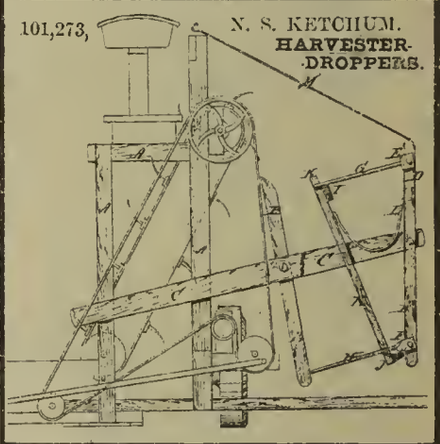
101,271, DAVID KAHNWEILER.
HULLING-MACHINES.



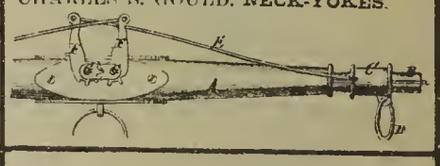
JAMES FRANKLIN KELLOGG.
TUCK-CREASING ATTACHMENT FOR SEWING-MACHINE.
101,272,



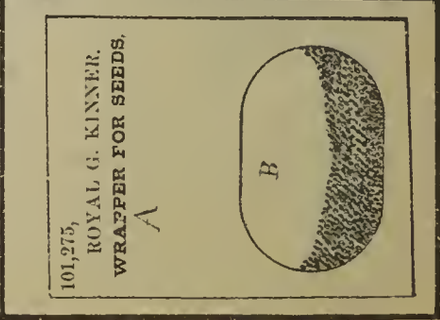
101,273, N. S. KETCHUM.
HARVESTER-DROPPERS.



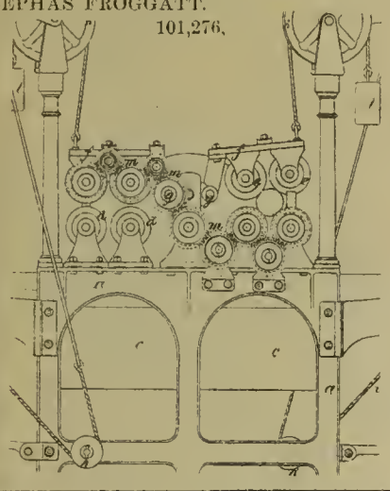
JOSEPH KING. 101,274,
CHARLES S. GOULD. **NECK-YOKES.**



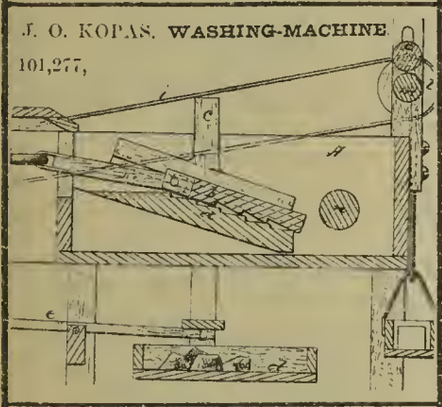
101,275,
ROYAL G. KINNER.
WRAPPER FOR SEEDS.



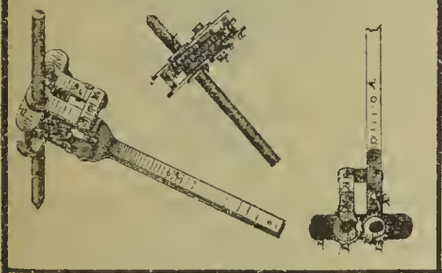
JAMES KIRK MACHINES FOR FELTING
SAMUEL SHELMERDINE. HAT-BODIES.
CEPHAS FROGGATT.
101,276.



J. O. KOPAS. WASHING-MACHINE
101,277,

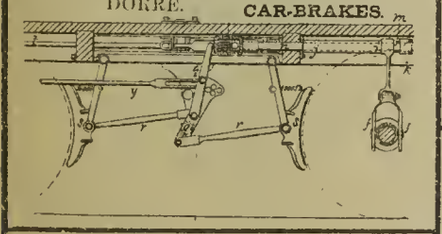


101,278, JOSEPH LAUBSER.
IMPROVED RATCHET DRILL.

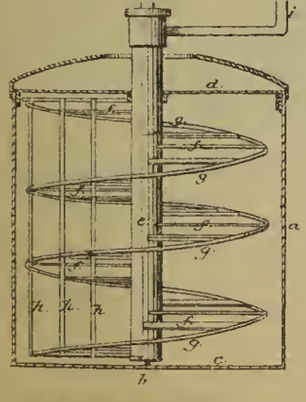


IMPROVED MEDICAL COMPOUND.
101,279 PHILESTER LEE.
LEMUEL MATTHEWS.

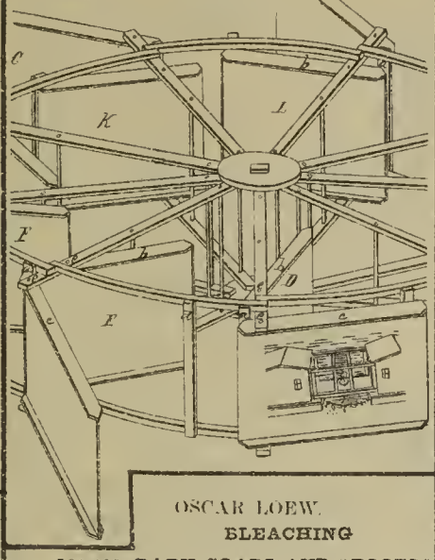
101,280, D. LÉFEVRE DORRÉ. RAILWAY CAR-BRAKES.



101,281 CHARLES LEHMANN. IMPROVED STIRRER AND EGG-BEATER.



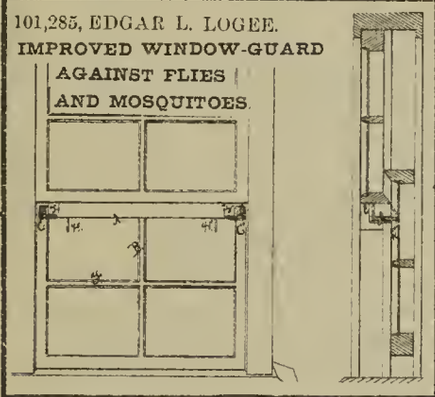
101,282, WM. LIGHTFOOT. CURRENT WATER-WHEELS.



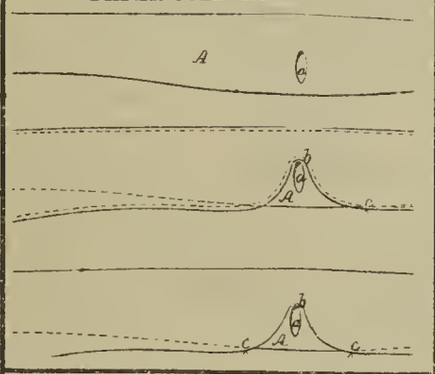
OSCAR LOEW.
BLEACHING
101,283. DARK SOAPS AND "FOOTS."

101,284, OSCAR LOEW.
BLEACHING AND REFINING OILS.

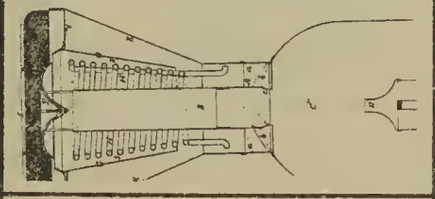
101,285, EDGAR L. LOGEE.
IMPROVED WINDOW-GUARD AGAINST FLIES AND MOSQUITOES.



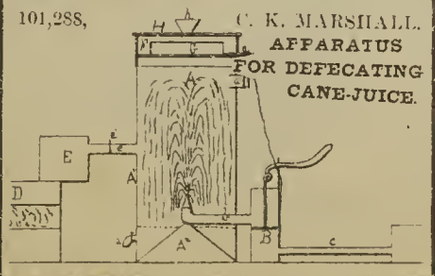
101,286, ED ELISHA MACK. PAPER COLLARS.



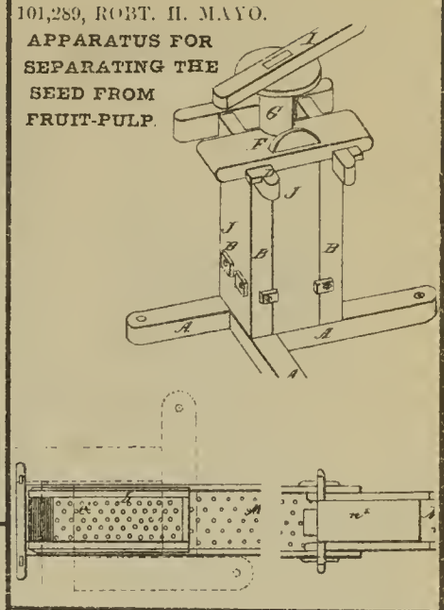
101,287, I. P. MAGOON. FEED-WATER HEATER FOR LOCOMOTIVES.



101,288, C. K. MARSHALL. APPARATUS FOR DEFECATING CANE-JUICE.



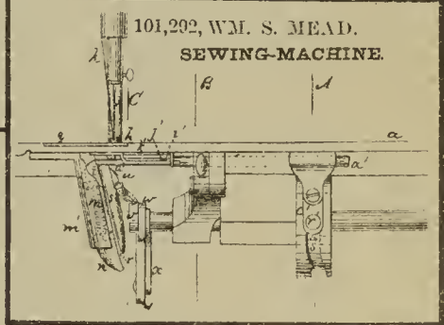
101,289, ROBT. H. MAYO.
APPARATUS FOR SEPARATING THE SEED FROM FRUIT-PULP.



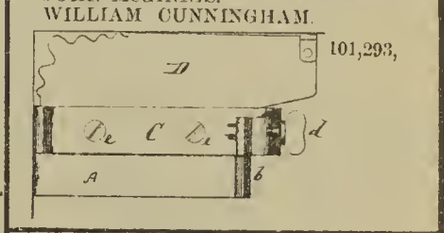
101,290, WM. D. McCLURE. STONE-DRILLS.

101,291. HUGH McDONALD.
MANUFACTURE OF CAST-STEEL.

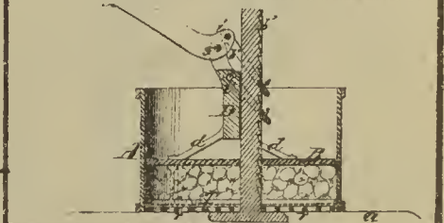
101,292, WM. S. MEAD.
SEWING-MACHINE.



MICHAEL MEANY.
JOHN McGINNIS. CORNICE-MOLD.
WILLIAM CUNNINGHAM.
101,293,

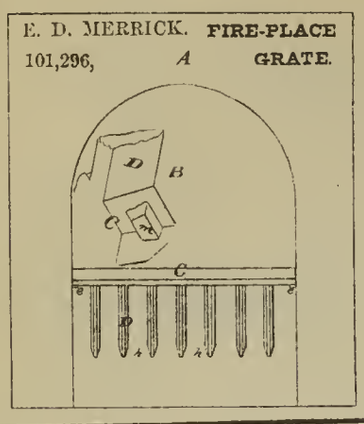


101,294 W. D. MEDBERY.
PRESS AND STRAINER COMBINED.

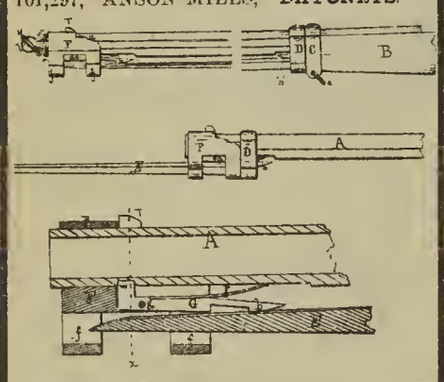


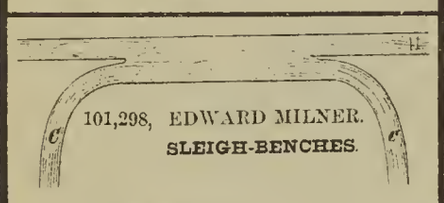
101,295, GEO. H. MELLEN.
CHILDREN'S CARRIAGES.

E. D. MERRICK. FIRE-PLACE GRATE.
101,296,



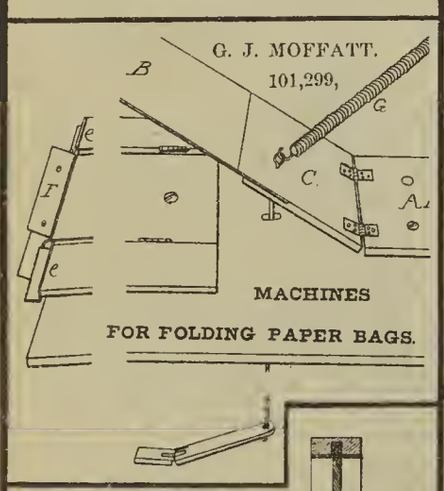
101,297, ANSON MILLS, BAYONETS.





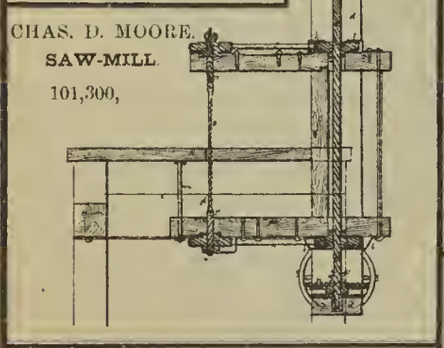
101,298, EDWARD MILNER. SLEIGH-BENCHES.

G. J. MOFFATT.
101,299,

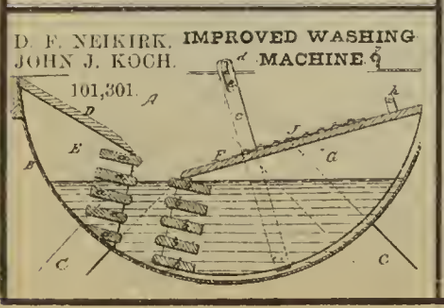


MACHINES FOR FOLDING PAPER BAGS.

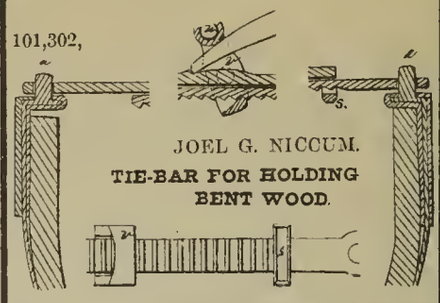
CHAS. D. MOORE. SAW-MILL.
101,300,



D. F. NEIKIRK. JOHN J. KOCH. IMPROVED WASHING MACHINE.
101,301.

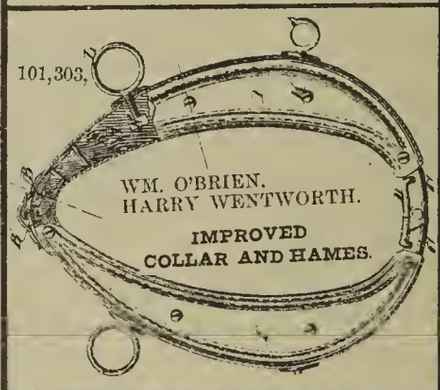


101,302,



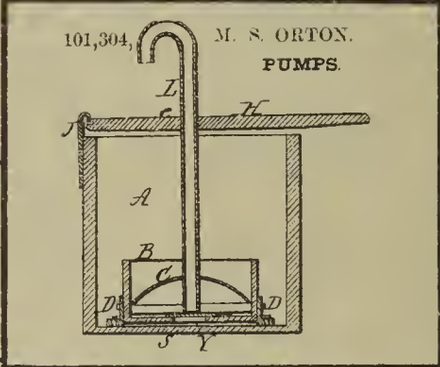
JOEL G. NICCUM. TIE-BAR FOR HOLDING BENT WOOD.

101,303,



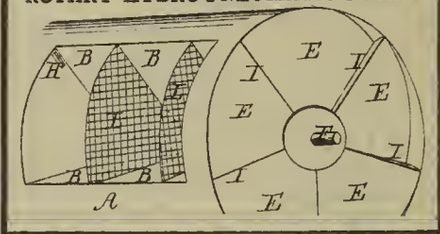
WM. O'BRIEN. HARRY WENTWORTH. IMPROVED COLLAR AND HAMES.

101,304, M. S. ORTON. PUMPS.

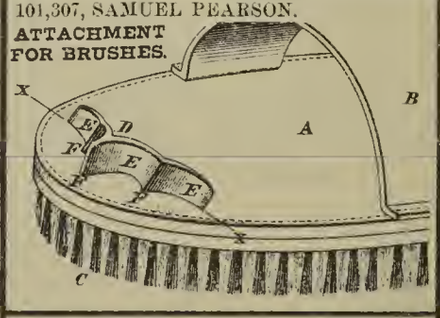


101,305, H. C. S. OTTO, Dr. IMPROVED MEDICAL COMPOUND.

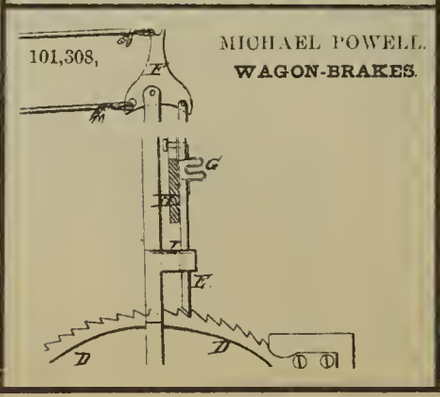
101,306, HENRY M. PAINE. ROTARY HYDRO-PNEUMATIC PUMPS.



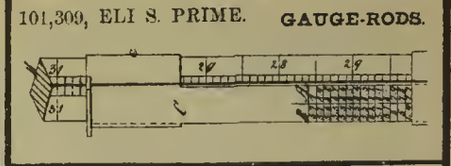
101,307, SAMUEL PEARSON. ATTACHMENT FOR BRUSHES.



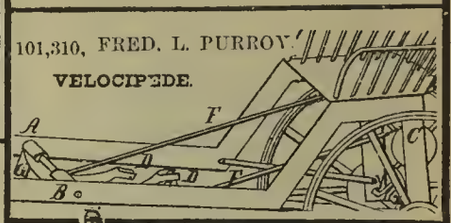
101,308, MICHAEL POWELL. WAGON-BRAKES.



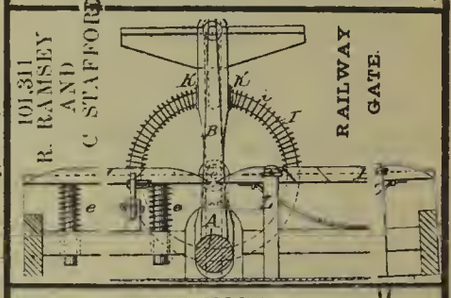
101,309, ELI S. PRIME. GAUGE-RODS.



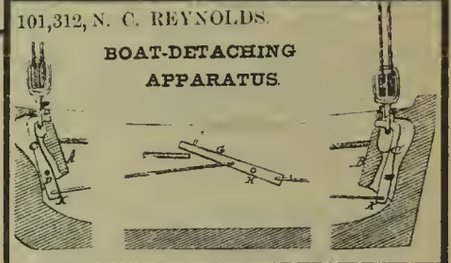
101,310, FRED. L. PURROY. VELOCIPEDE.



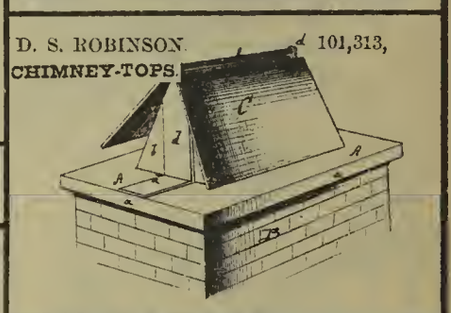
101,311 R. RAMSEY AND C. STAFFORD. RAILWAY GATE.



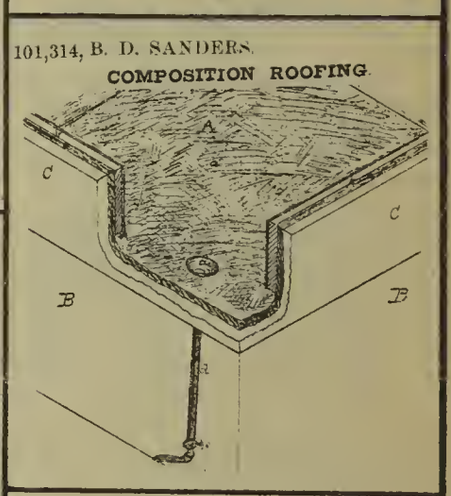
101,312, N. C. REYNOLDS. BOAT-DETACHING APPARATUS.



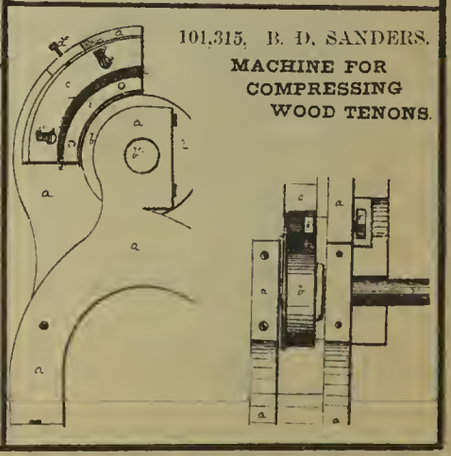
D. S. ROBINSON. CHIMNEY-TOPS.
101,313,



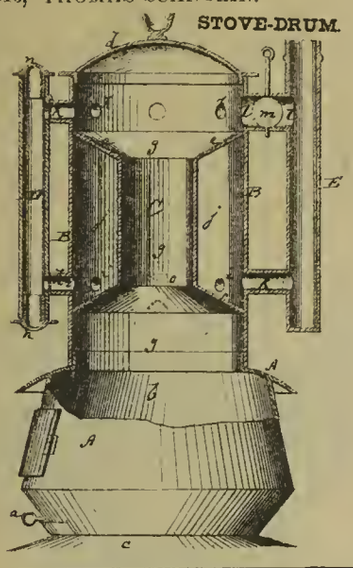
101,314, B. D. SANDERS. COMPOSITION ROOFING.



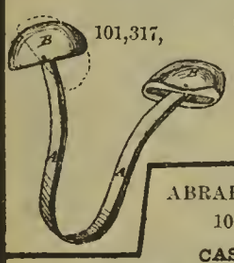
101,315, B. D. SANDERS. MACHINE FOR COMPRESSING WOOD TENONS.



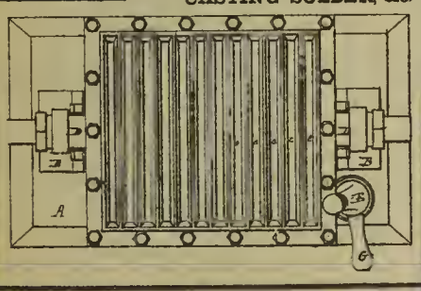
101,316, THOMAS SCANTLIN.
STOVE-DRUM.



101,317, CASPAR SCHMITT.
PESSARIES.



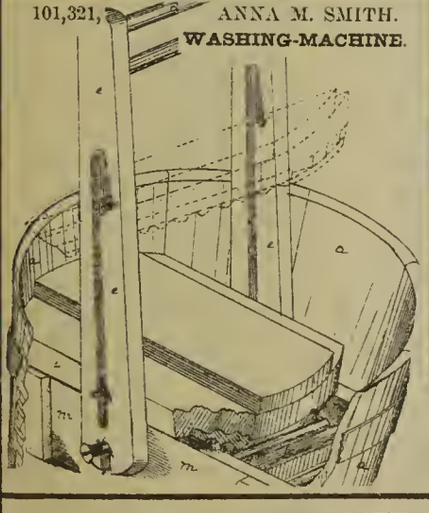
ABRAHAM SCHOENBERG
101,318, MOLDS FOR
CASTING SOLDER, &c.



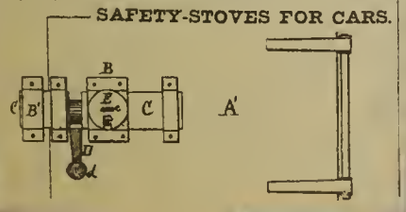
101,319, THEODORE SCHWARTZ.
PROCESS OF OBTAINING
ACETIC ACID FROM WOOD.

101,320, THEODORE SCHWARTZ.
TREATING WOOD
TO OBTAIN USEFUL PRODUCTS.

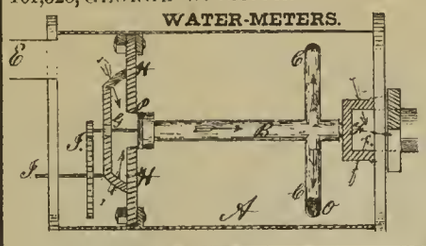
101,321, ANNA M. SMITH.
WASHING-MACHINE.



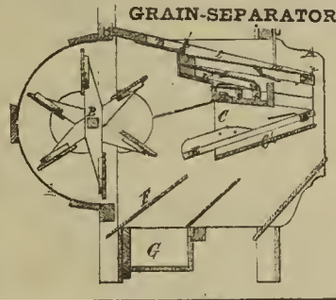
101,322, C. J. SMITH. BOLTS FOR
SAFETY-STOVES FOR CARS.



101,323, GEORGE W. SMITH.
WATER-METERS.

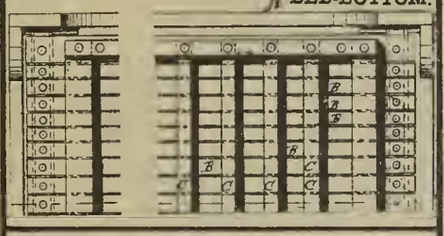


161,324, MYRON H. SMITH.
GRAIN-SEPARATORS.

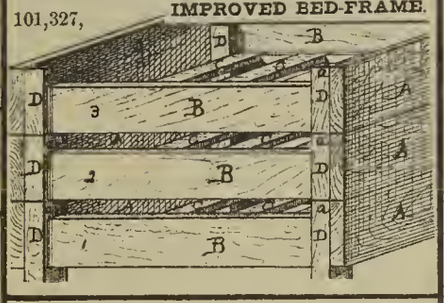


101,325, JACOB H. SMYSER.
LUBRICATING COMPOUNDS

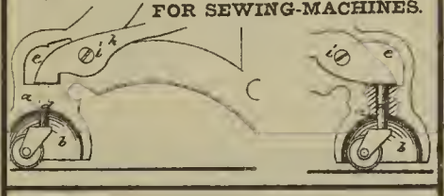
101,326, JOSEPH SPERRY.
BED-BOTTOM.



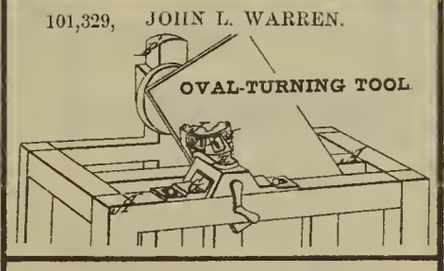
SAMUEL SPRINGER.
101,327, IMPROVED BED-FRAME.



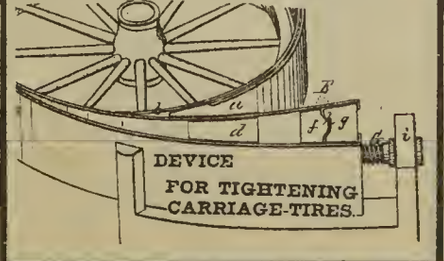
101,328, JOHN M. VEASEY. CASTERS
FOR SEWING-MACHINES.



101,329, JOHN L. WARREN.
OVAL-TURNING TOOL.

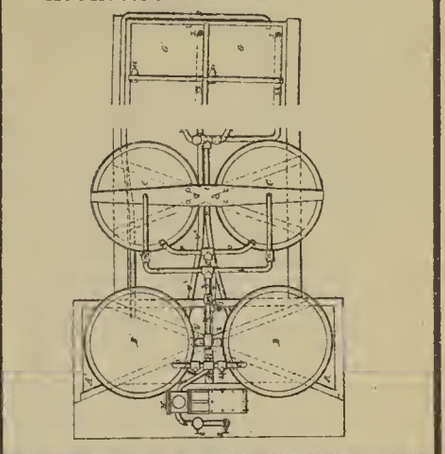


101,330, JONATHAN BURNS WEST.



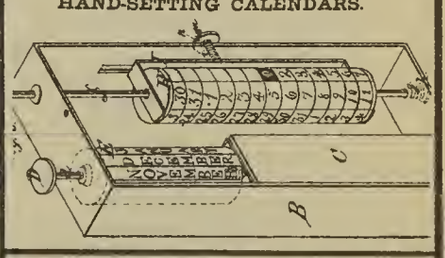
DEVICE
FOR TIGHTENING
CARRIAGE-TIRES.

101,331, ZEBARD THOMPSON WHITE.
APPARATUS FOR TANNING HIDES.

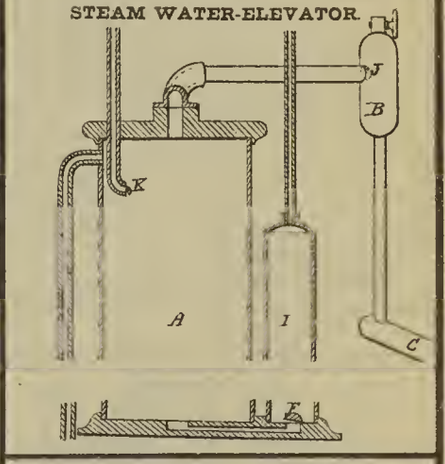


101,332, JOHN L. WHITING.
IMPROVED BRUSH.

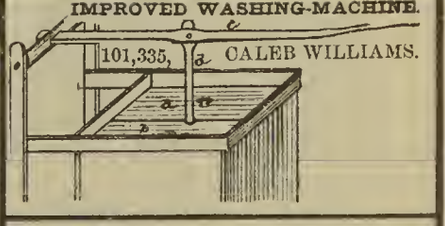
101,333, CHARLES H. WIGHT.
HAND-SETTING CALENDARS.



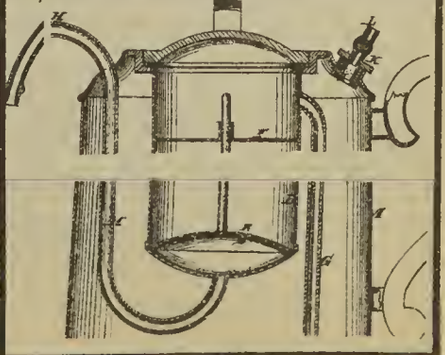
101,334, JOSEPH C. WIGHTMAN.
STEAM WATER-ELEVATOR.



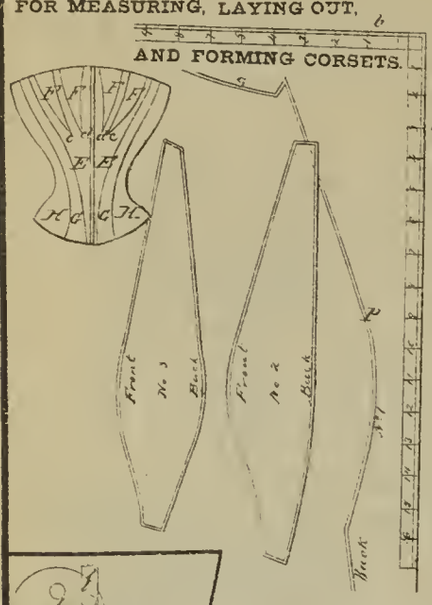
IMPROVED WASHING-MACHINE.
101,335, CALEB WILLIAMS.



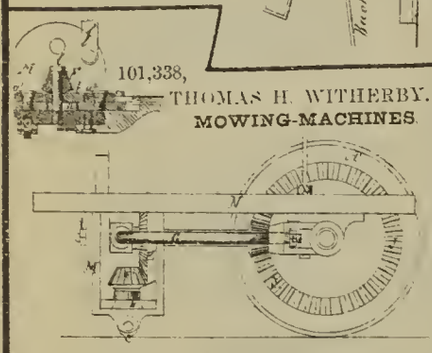
101,336, JOHN P. WILLIAMS. COFFEE-POT.



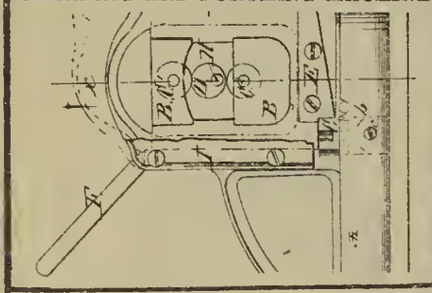
101,337, MOLLIE WILLIAMS. DEVICES FOR MEASURING, LAYING OUT, AND FORMING CORSETS.



101,338, THOMAS H. WITHERBY. MOWING-MACHINES.

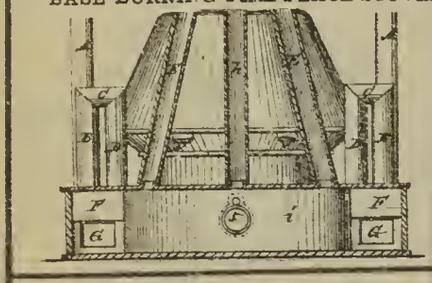


101,339, THOMAS H. WITHERBY. SHEARING AND PUNCHING-MACHINE.

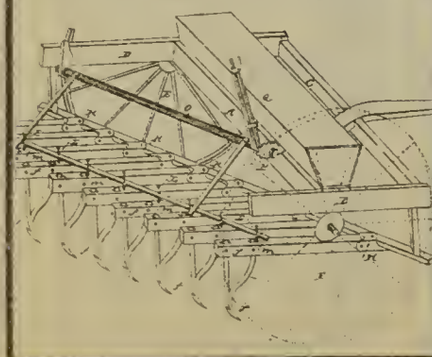


101,340, LOUIS WOLFF. LINIMENT FOR BURNS, SCALDS, &c.

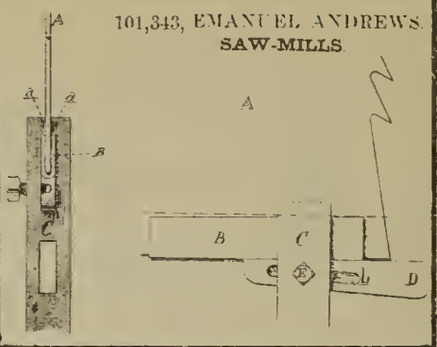
101,341, WM. E. WOOD. BASE BURNING FIRE-PLACE-STOVE.



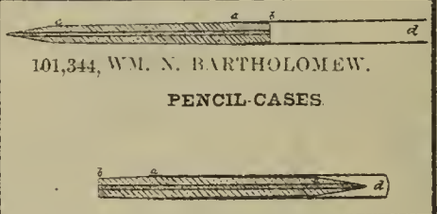
101,342, NELSON E. ALLEN. ISRAEL B. RECORD. JAMES ROOD. JASPER HAYDEN. SEEDER AND CULTIVATOR COMBINED.



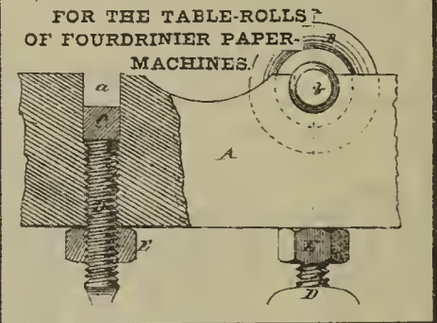
101,343, EMANUEL ANDREWS. SAW-MILLS.



101,344, WM. N. BARTHOLOMEW. PENCIL-CASES.

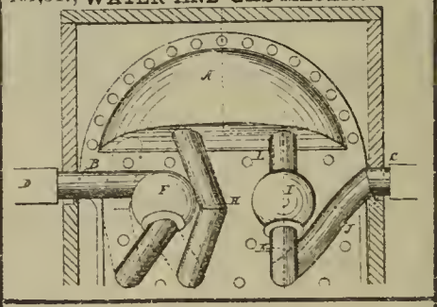


101,345, GEO. S. BARTON. THE BEARINGS FOR THE TABLE-ROLLS OF FOURDRINIER PAPER-MACHINES.

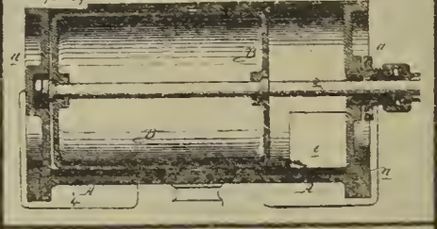


101,346, ALBERT BETTELEY. WOOD PAVEMENTS.

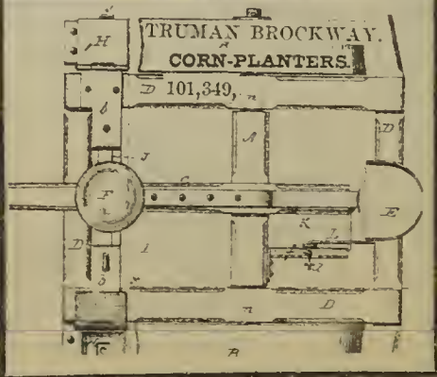
NATH. L. BLANCHARD. 101,347, WATER AND GAS-METERS.



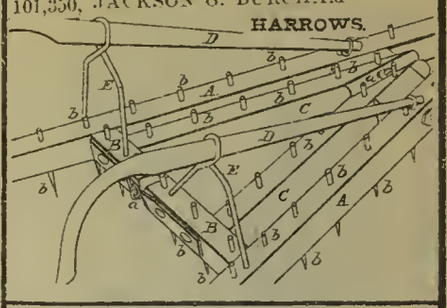
SAMUEL REEVE BRICK. 101,348, EXHAUSTING APPARATUS FOR GAS-WORKS.



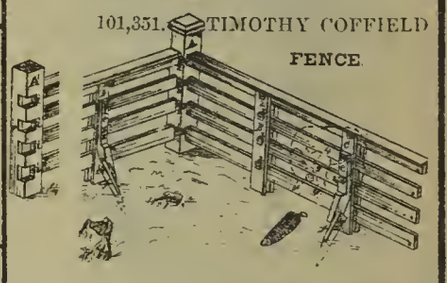
TRUMAN BROCKWAY. 101,349, CORN-PLANTERS.



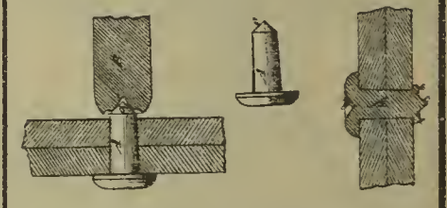
101,350, JACKSON G. BURCHAM. HARROWS.



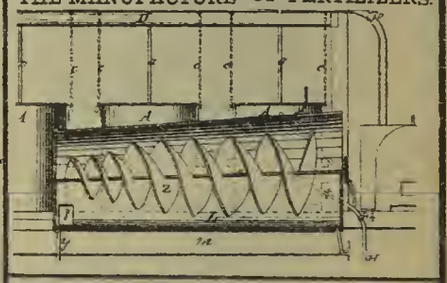
101,351, TIMOTHY COFFIELD. FENCE.



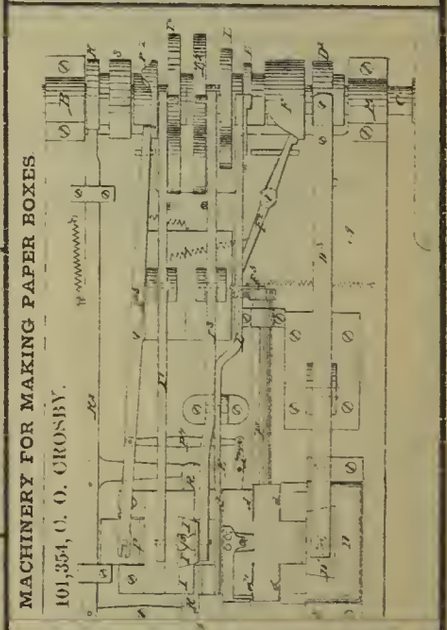
101,352, H. E. COPELEY. RIVETS.



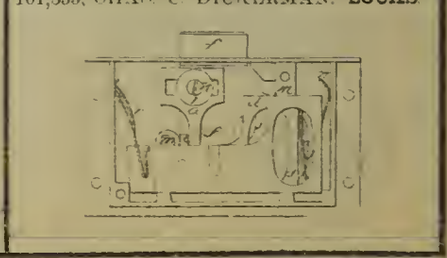
101,353, JAS. E. COX. APPARATUS FOR KEEPING PURE THE AIR IN THE MANUFACTURE OF FERTILIZERS.



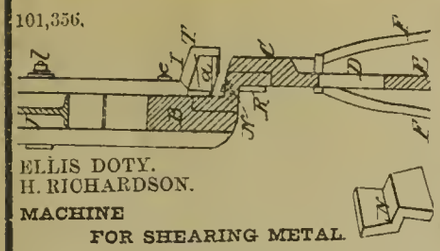
MACHINERY FOR MAKING PAPER BOXES. 101,354, C. O. CROSBY.



101,355, CHAS. C. DICKERMAN. LOCKS.

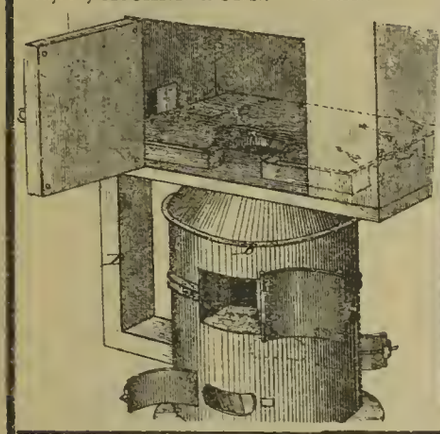


101,356.

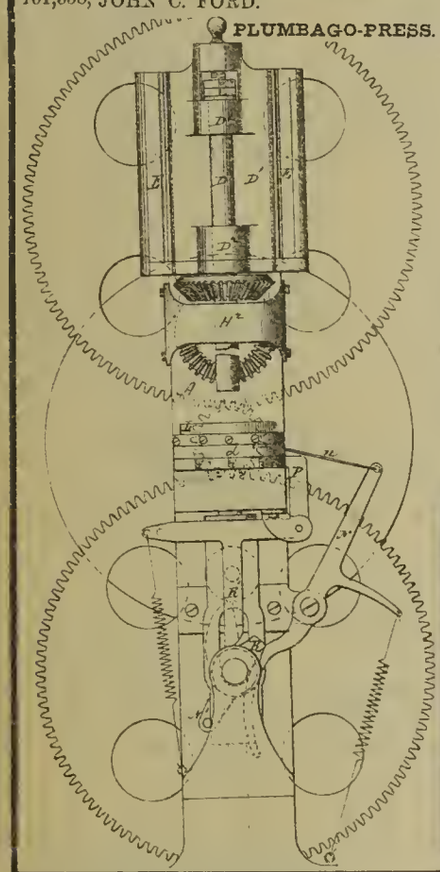


ELLIS DOTY.
H. RICHARDSON.
MACHINE FOR SHEARING METAL.

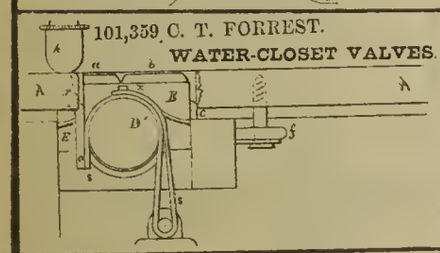
101,357, McCANN DUNN. OVEN.



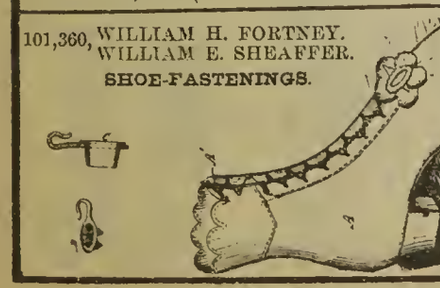
101,358, JOHN C. FORD. PLUMBAGO-PRESS.



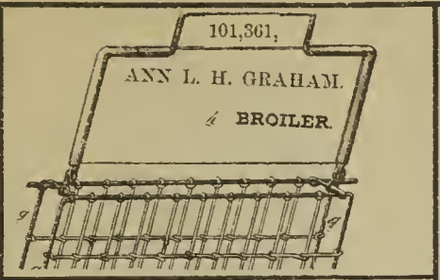
101,359. C. T. FORREST. WATER-CLOSET VALVES.



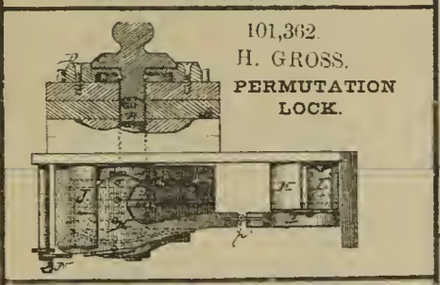
101,360, WILLIAM H. FORTNEY. WILLIAM E. SHEAFFER. SHOE-FASTENINGS.



101,361, ANN L. H. GRAHAM. BROILER.

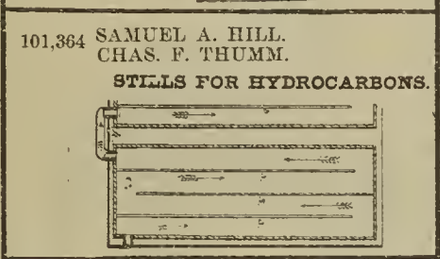


101,362. H. GROSS. PERMUTATION LOCK.

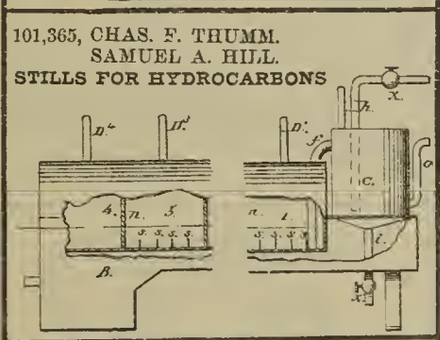


101,363. THOS. HALL. IMPROVED COVER FOR SEWING-MACHINES.

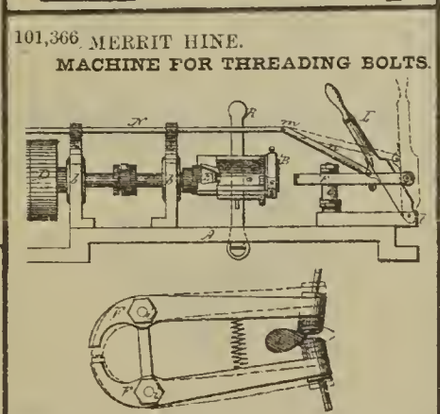
101,364 SAMUEL A. HILL. CHAS. F. THUMM. STILLS FOR HYDROCARBONS.



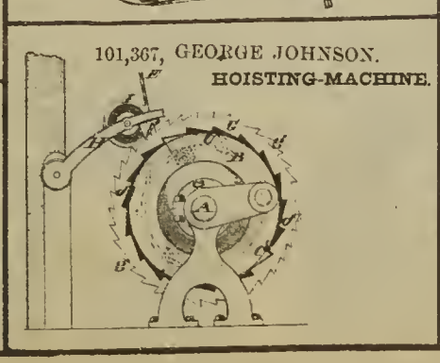
101,365, CHAS. F. THUMM. SAMUEL A. HILL. STILLS FOR HYDROCARBONS



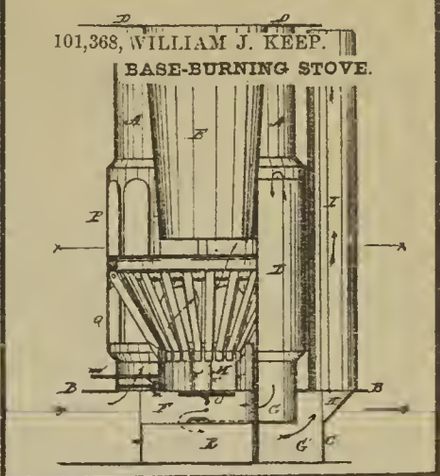
101,366 MERRIT HINE. MACHINE FOR THREADING BOLTS.



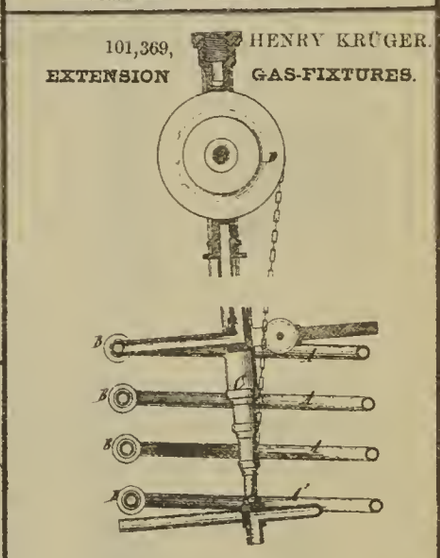
101,367, GEORGE JOHNSON. HOISTING-MACHINE.



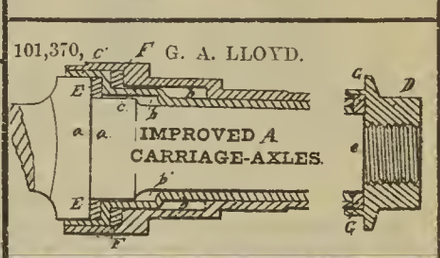
101,368, WILLIAM J. KEEP. BASE-BURNING STOVE.



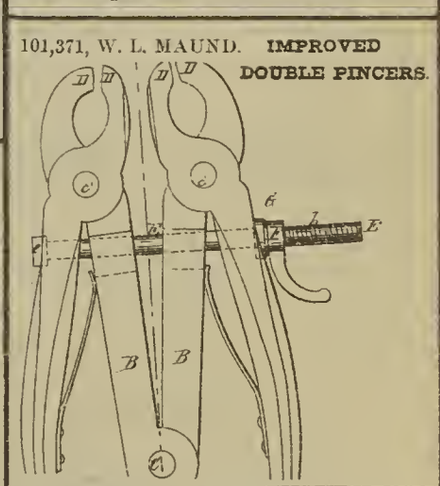
101,369, HENRY KRÜGER. EXTENSION GAS-FIXTURES.



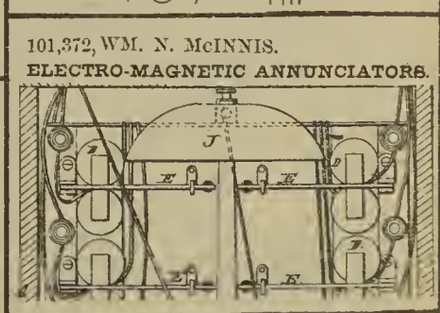
101,370, G. A. LLOYD. IMPROVED CARRIAGE-AXLES.



101,371, W. L. MAUND. IMPROVED DOUBLE PINCERS.

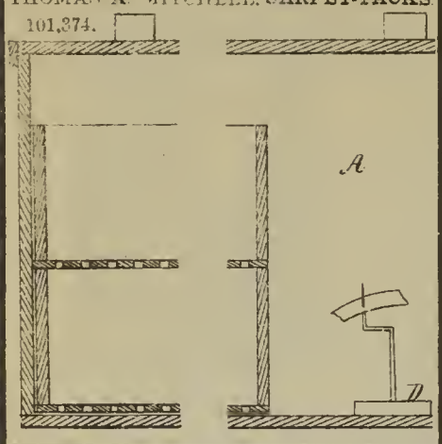


101,372, WM. N. McINNIS. ELECTRO-MAGNETIC ANNUNCIATORS.

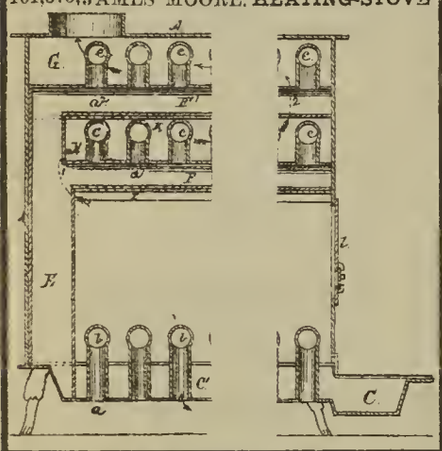


101,373 D. M. MEFFERD. PRESERVING VEGETABLES, FRUITS, &c.

THOMAS A. MITCHELL. CARPET-TACKS.
101,374.



101,375, JAMES MOORE. HEATING-STOVE



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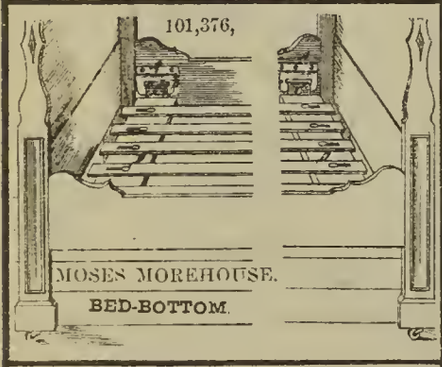

MOSES MOREHOUSE.
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GEO. MUNGER. 101,377,
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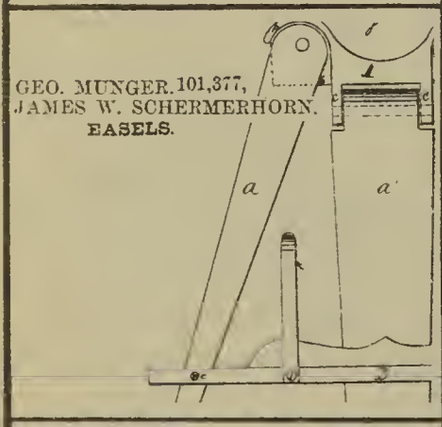
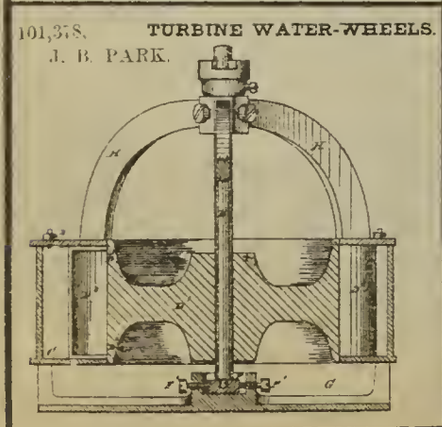


101,378. TURBINE WATER-WHEELS.
J. B. PARK.



101,379, CHAS. H. PARKER.
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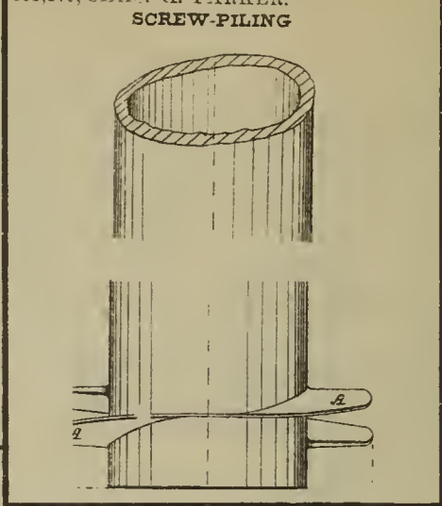
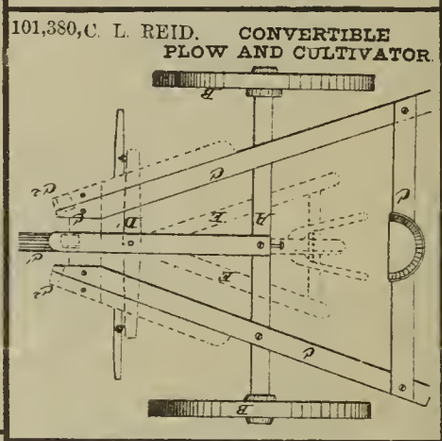


101,380, C. L. REID. CONVERTIBLE
PLOW AND CULTIVATOR.



101,381, M. RICHARDSON.
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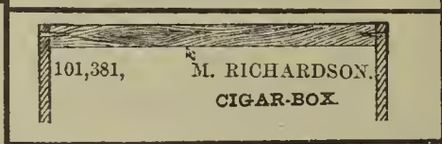

101,382, CHAS. ROBINSON.
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101,383, J. F. SARGENT.
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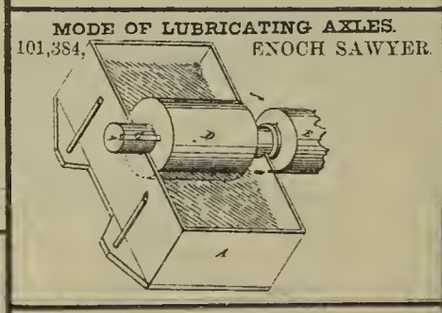
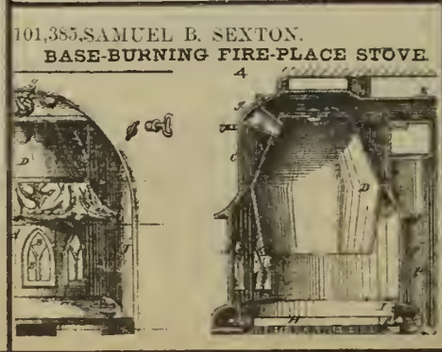
101,384, ENOCH SAWYER.



101,385, SAMUEL B. SEXTON.
BASE-BURNING FIRE-PLACE STOVE.



101,386, SEVERIN SIEBOLD.
GAG-RUNNER AND BUCKLE.

101,387, SEVERIN SIEBOLD.
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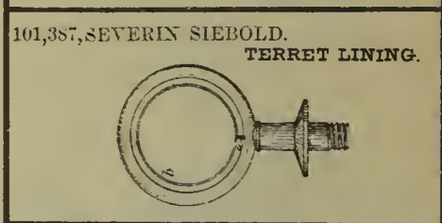

101,388,
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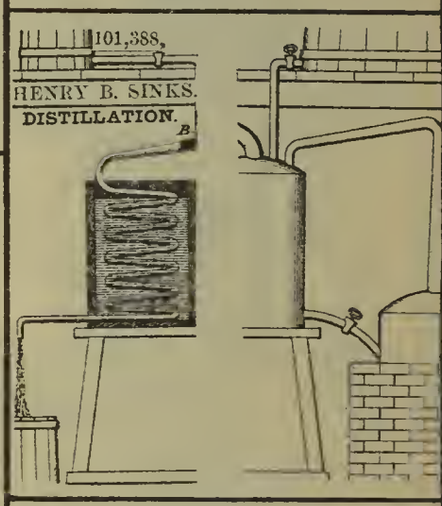
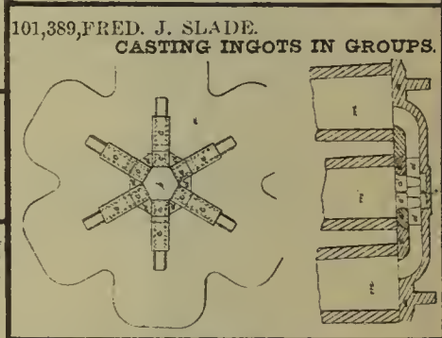


101,389, FRED. J. SLADE.
CASTING INGOTS IN GROUPS.



101,390, WILLIAM E. SMITH.
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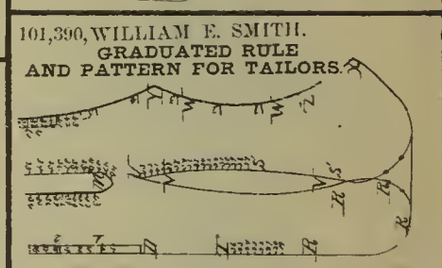
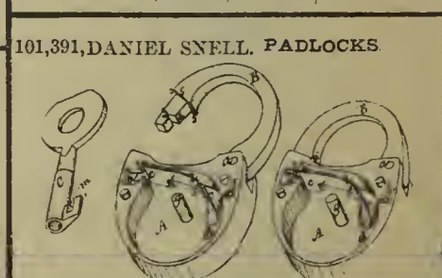
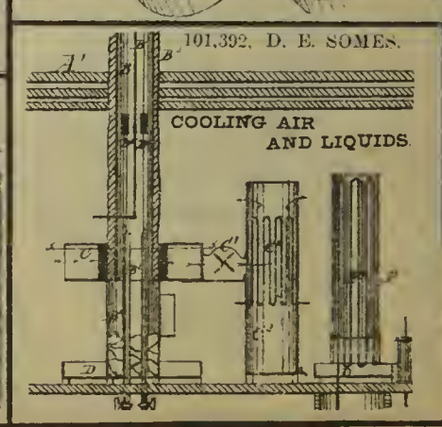
AND PATTERN FOR TAILORS.



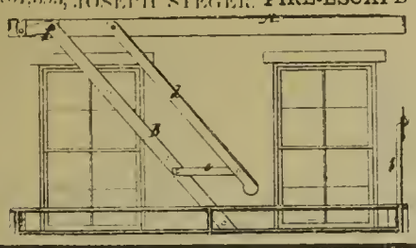
101,391, DANIEL SNELL. PADLOCKS.



101,392. D. E. SOMES.
COOLING AIR
AND LIQUIDS.

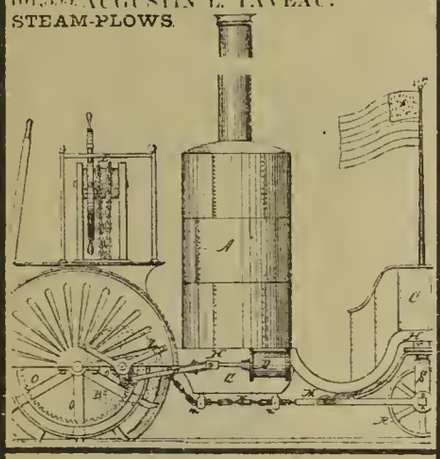


101,393, JOSEPH STEGER. FIRE-ESCAPE

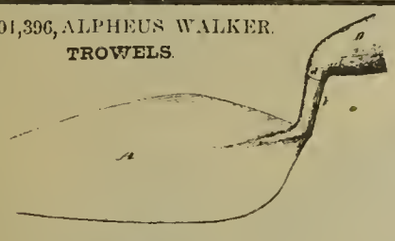


101,394 C. A. STEVENS. PACKING JOURNALS, AND OTHER PARTS OF MACHINERY

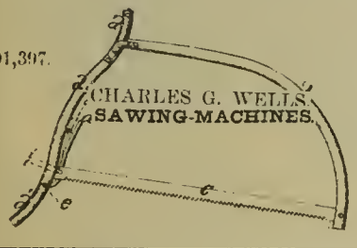
101,395. AUGUSTIN L. TAVEAU. STEAM-PLOWS.



101,396, ALPHEUS WALKER. TROWELS.



101,397. CHARLES G. WELLS. SAWING-MACHINES.



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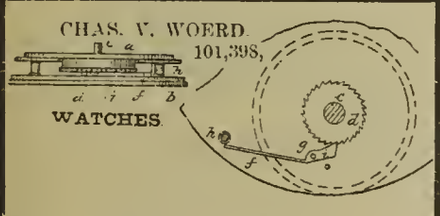
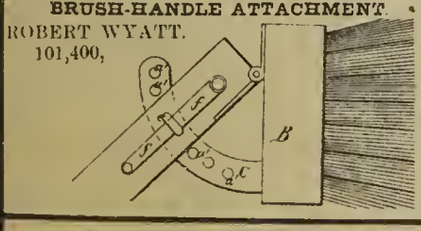
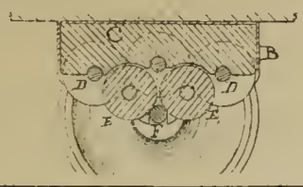


101,399. JOSEPH WOODLEY. BOOT AND SHOE-HEELS.

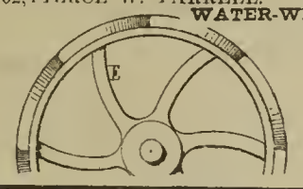
BRUSH-HANDLE ATTACHMENT. ROBERT WYATT. 101,400,



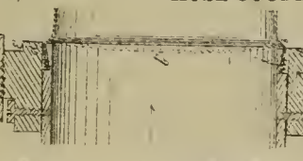
101,401, PIERCE W. YARRELL. ANTI-FRICTION JOURNALS.



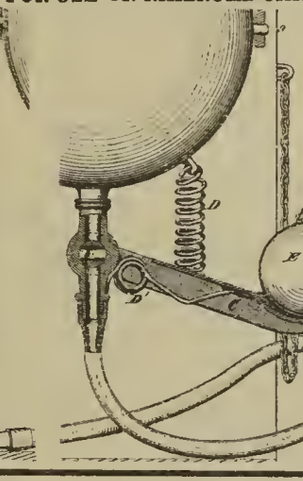
101,402, PIERCE W. YARRELL. WATER-WHEELS.



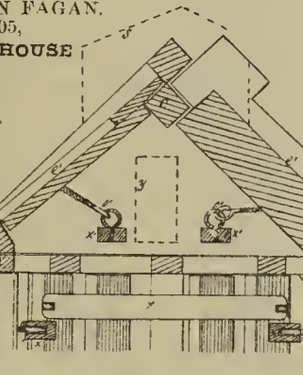
CHARLES H. CUSHMAN. 101,403, HOSE-COUPLINGS.

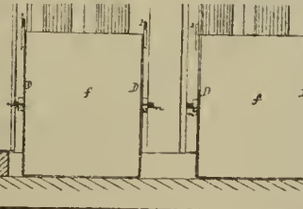


H. C. STEWART. R. T. BRADLEY. 101,404. AUTOMATIC FIRE-EXTINGUISHER FOR USE ON RAILROAD CARS, &c.



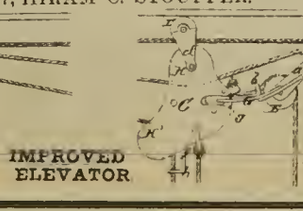
WILLIAM VELTE. JOHN FAGAN. 101,405, ICE-HOUSE



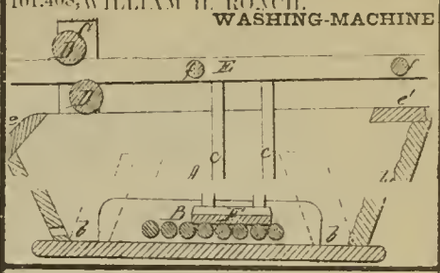


101,406. C. HART SMITH. PROCESS OF PREPARING PAPER FOR ROOFING AND SIMILAR PURPOSES.

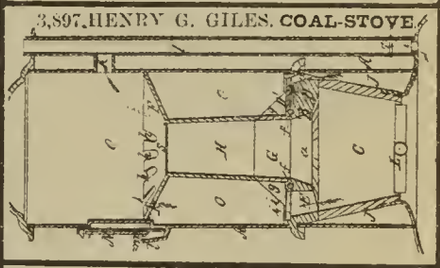
101,407, HIRAM C. STOUFFER. IMPROVED ELEVATOR.



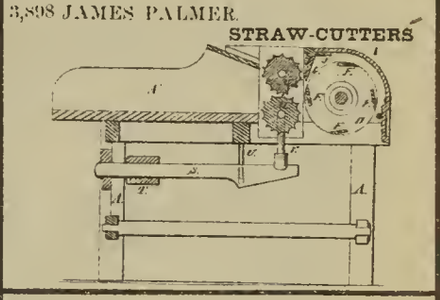
101,408, WILLIAM H. ROACH. WASHING-MACHINE



3,897. HENRY G. GILES. COAL-STOVE.



3,898 JAMES PALMER. STRAW-CUTTERS.



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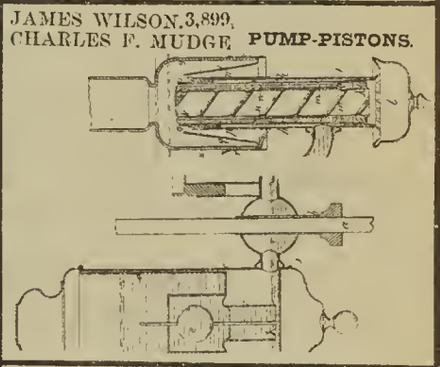
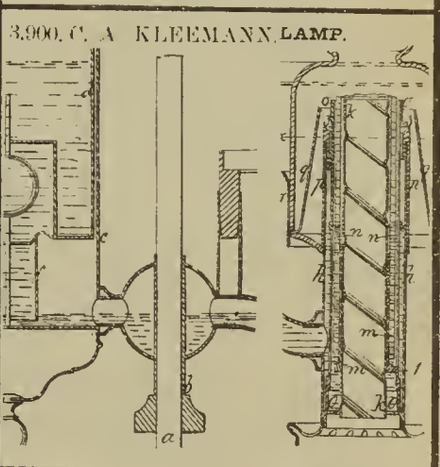
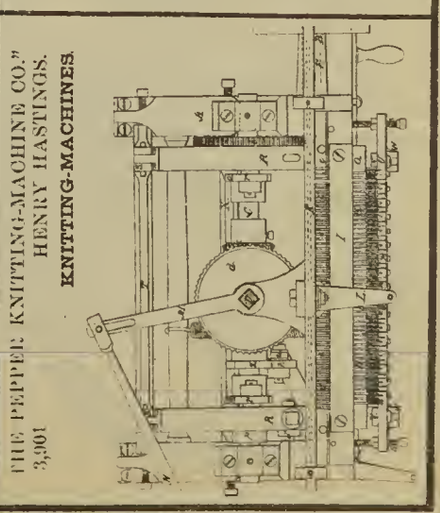


3,900. C. A. KLEEMANN. LAMP.



THE PEPPER KNITTING-MACHINE CO.' HENRY HASTINGS. KNITTING-MACHINES. 3,901



ILLUSTRATIONS OF PATENTS

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APRIL 5, 1870.

101,409, J. B. ALEXANDER.
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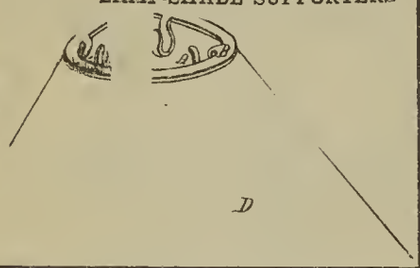
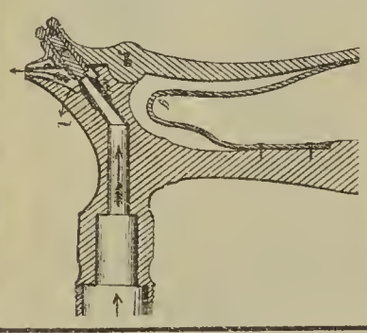
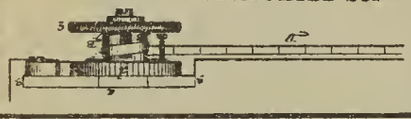


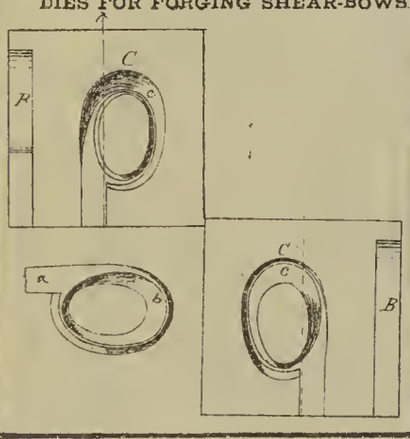
101,410, JOHN ASHCROFT. **FAUCETS.**



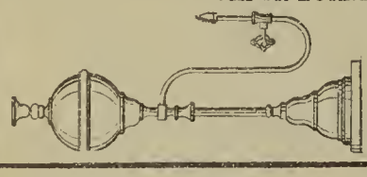
101,411, RICHARD MEADE BACHE.
ELASTIC GRADUATED SCALE.



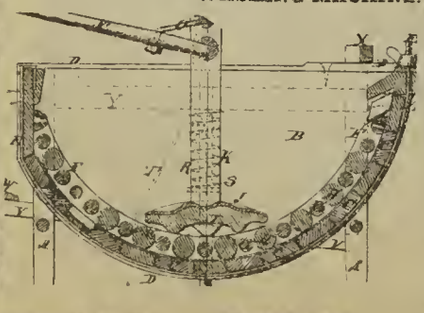
101,412. ALBERT R. BAILEY.
DIES FOR FORGING SHEAR-BOWS.



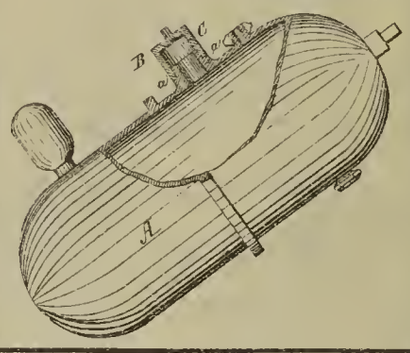
101,413, S. D. BALDWIN.
VAPOR BURNERS.



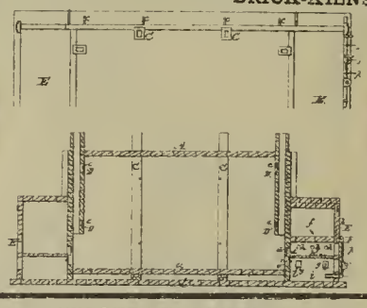
101,414, JOSEPH BALSLEY.
WASHING-MACHINE.



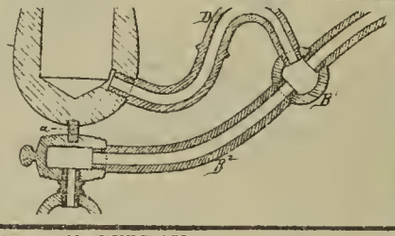
101,415. BENJAMIN BATES
APPARATUS FOR GENERATING CARBONIC ACID.



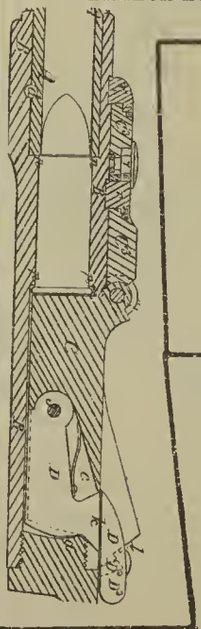
101,416. OLIVER BENNETT.
BRICK-KILNS



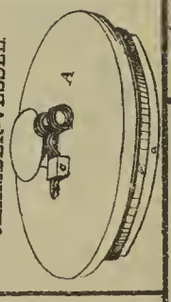
101,417, ZELOTES R. BENNETT.
TOBACCO-PIPES.



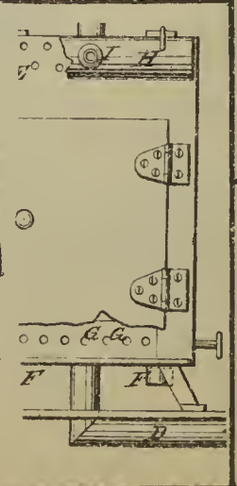
101,418. H. BERDAN.
BREECH-LOADING FIRE-ARMS.



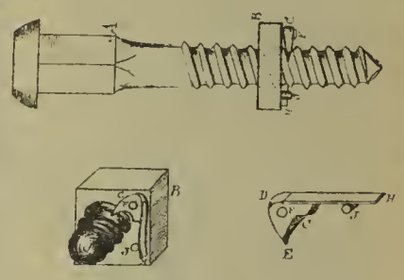
101,419,
CHAS. H. BERRY.
CHAMBER-VESSEL.



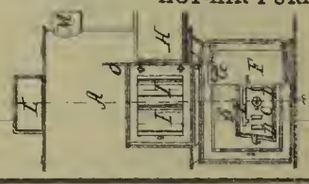
101,420,
H. BESSE.
HEATING-STOVE.



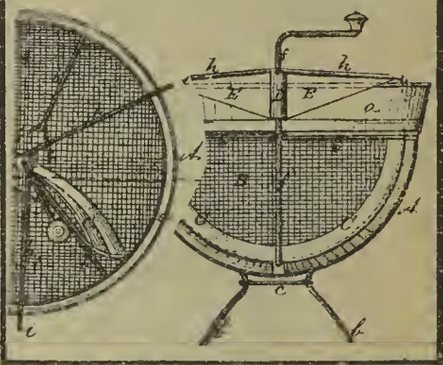
101,421, A. G. BINNS. **IN LOCK-NUT**



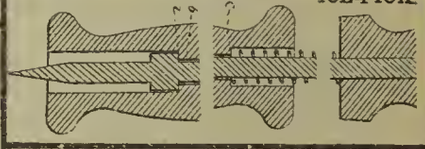
101,422, LANSING BONNELL.
HOT-AIR FURNACE.



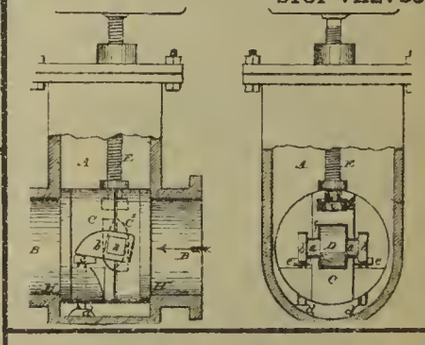
101,423, ALONZO T. BOON.
LUCIEN MILLS.
FLOUR-SIFTER, COLANDER, AND STRAINER.



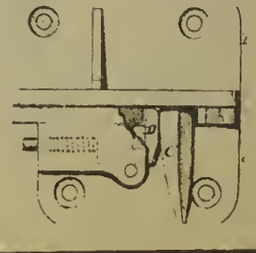
101,424, EDWARD BROWN **ICE-PICK.**



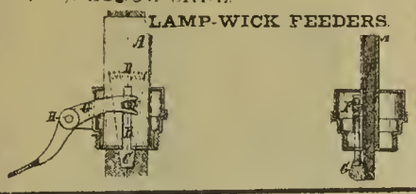
101,425, SILAS H. BROWN.
STOP-VALVES



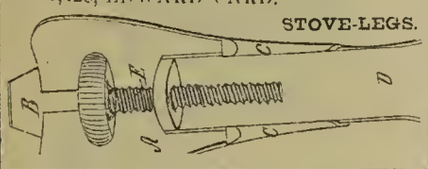
101,426, THOS. S. BROWN.
FLASK-GUIDES



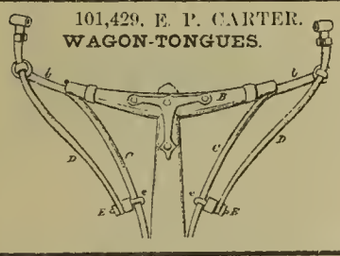
101,427, GEORGE CADE.
LAMP-WICK FEEDERS.



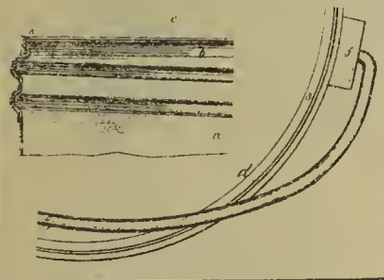
101,428, EDWARD CARD.
STOVE-LEGS.



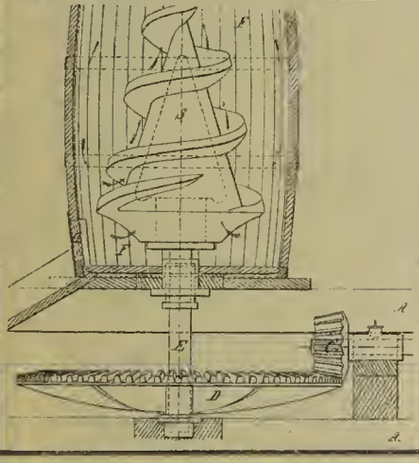
101,429, E. P. CARTER.
WAGON-TONGUES.



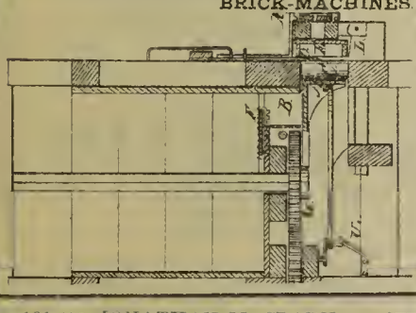
101,430, JOHN K. CHACE.
FASTENINGS FOR PAILS, CANS,



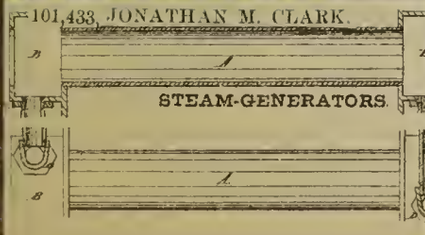
101,431, EDWIN CHAMBERS
CYRUS CHAMBERS,
MACHINES FOR GRINDING SCREWS.



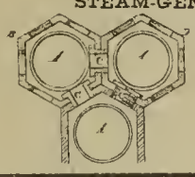
101,432, F. L. CLARKE.
BRICK-MACHINES.



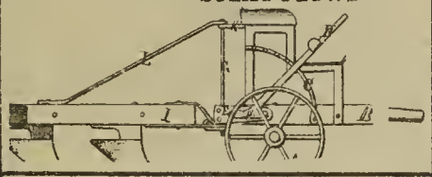
101,433, JONATHAN M. CLARK.
STEAM-GENERATORS.



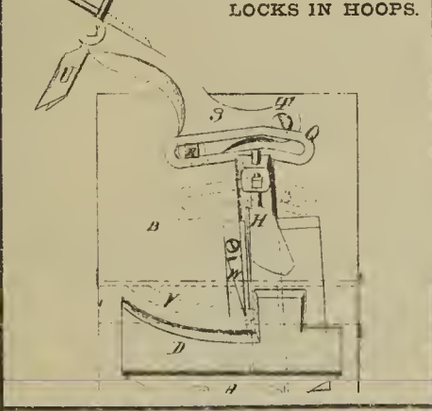
101,434, JONATHAN M. CLARK.
STEAM-GENERATORS.



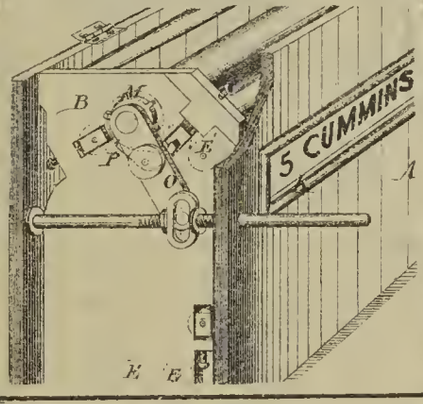
101,435, JOHN H. COLE.
SULKY-PLOWS



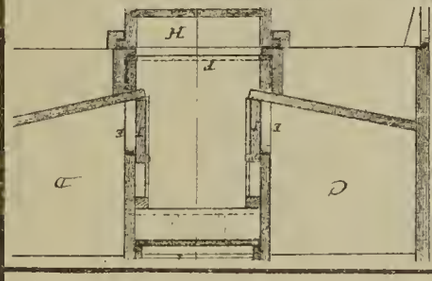
101,436, THEODORE CONKLIN
MACHINE FOR CUTTING
LOCKS IN HOOPS.



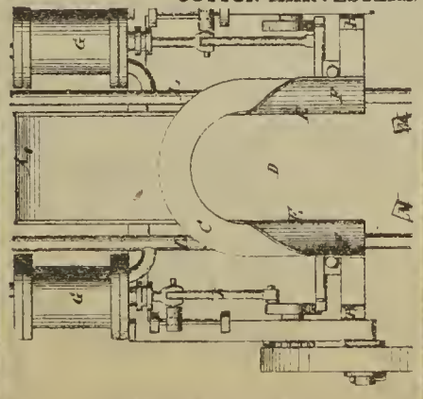
101,437, EDW. CONLEY.
RAILROAD-STATION INDICATOR.



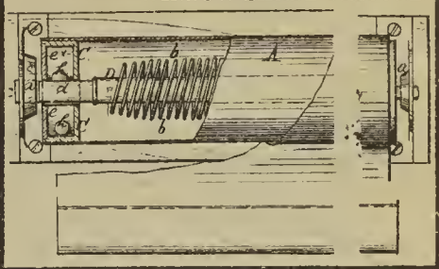
101,438, JOHN M. DASHIELL.
FLOUR AND MEAL-CHEST.



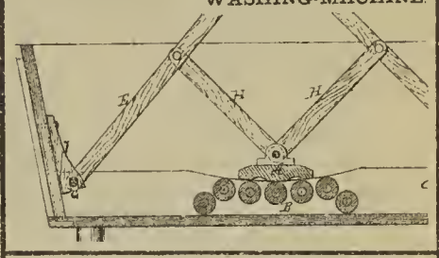
101,439, JAMES DAVIS, Jr.
DAVID SCOTT, Jr.
COTTON-HARVESTERS.



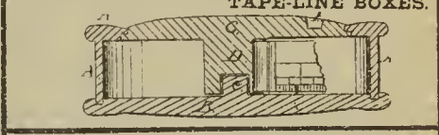
101,440, DAVID WM. DE FOREST.
WINDOW-SHADE FIXTURE.



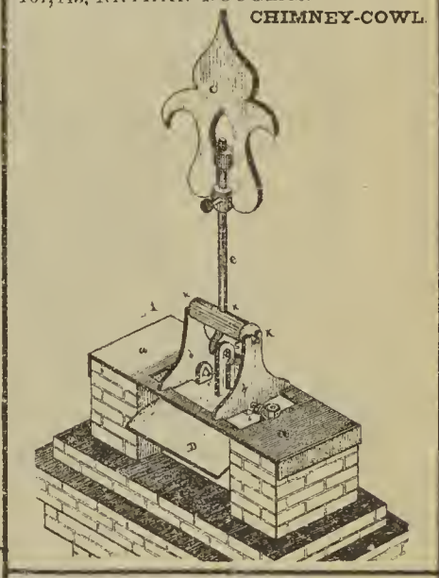
101,441, JOHN K. DERBY.
WASHING-MACHINE.



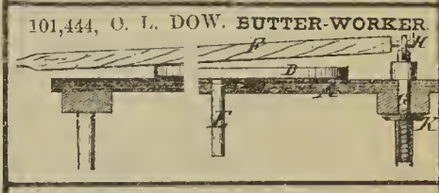
101,442, CHARLES E. DONNELLAN.
TAPE-LINE BOXES.



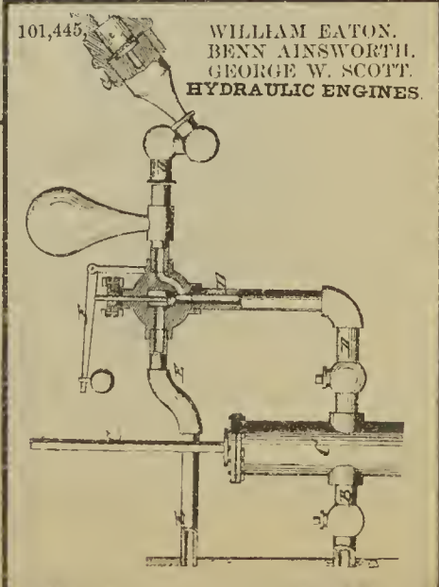
101,443, NATHAN DOUGLAS.
CHIMNEY-COWL.



101,444, O. L. DOW. BUTTER-WORKER.

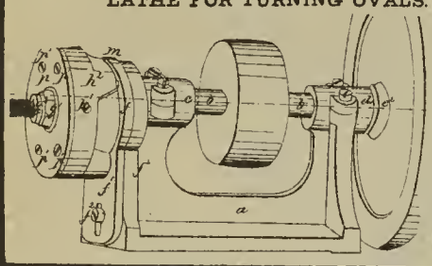


101,445, WILLIAM EATON.
BENN AINSWORTH.
GEORGE W. SCOTT.
HYDRAULIC ENGINES.

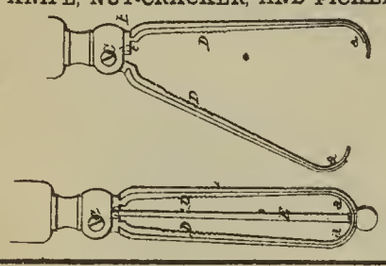


101,446, J. L. ECK.
RUFFLING-ATTACHMENT FOR SEWING-MACHINE.

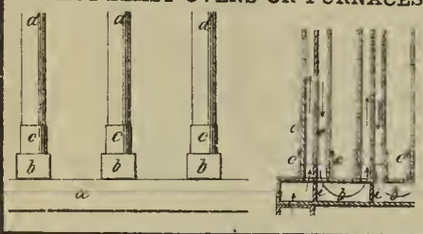
101,447, R. EICKEMEYER.
LATHE FOR TURNING OVALS.



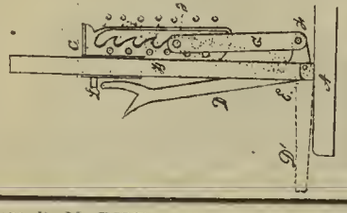
101,448, GEORGE A. FAIRFIELD.
KNIFE, NUT-CRACKER, AND PICKER.



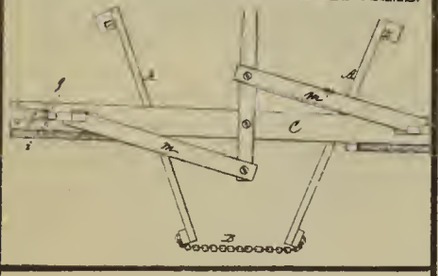
101,449, E. M. FERGUSON.
IN HOT-BLAST OVENS OR FURNACES.



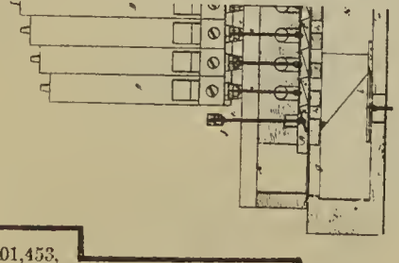
101,450, LEVI W. FIFIELD.
LIFTING-JACK.



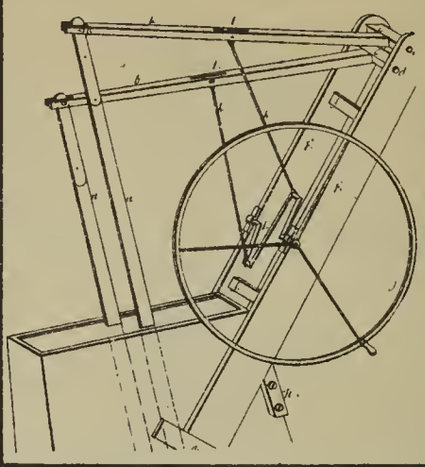
101,451, R. M. FISH.
DUMPING-PLATFORMS.



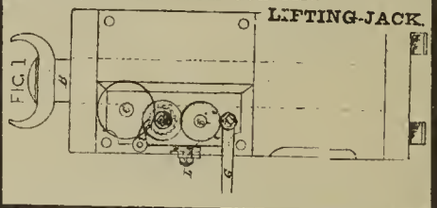
101,452, CARL FOGELBERG.
MELODY-ATTACHMENT.



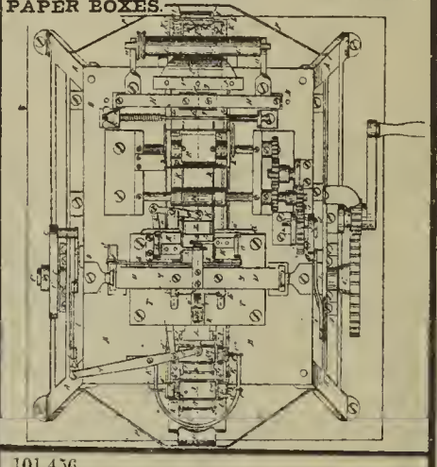
101,453,
ALBION W. FOSTER.
CHURNS.



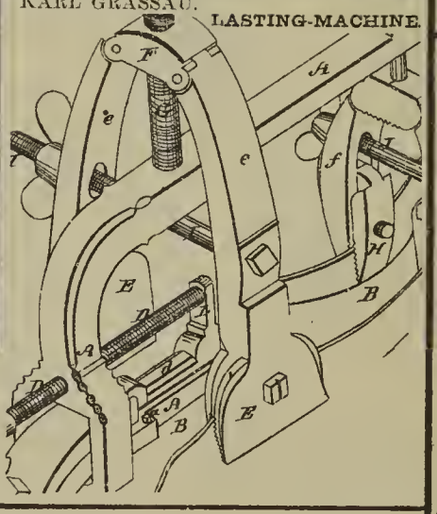
101,454, LEON PAUL GARCIN.
LIFTING-JACK.



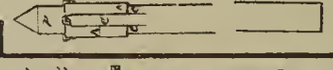
101,455, FREDK GATES.
MACHINERY FOR MAKING PAPER BOXES.



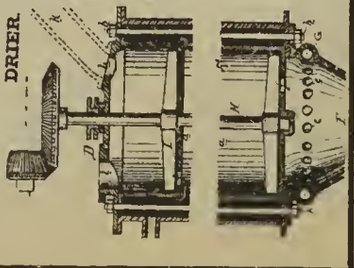
101,456,
KARL GRASSAU.
LASTING-MACHINE.



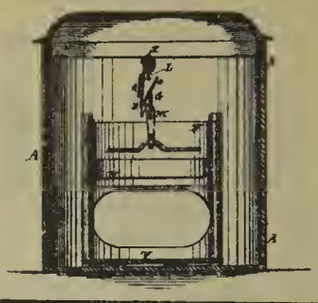
101,457,
ANNIE J. HALL. PENCIL-HOLDERS



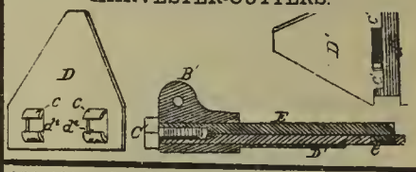
101,458,
THOMAS S. HARRISON.
DRIER.



101,459, EDER E. HAUGHWOUT.
ANIMAL-TRAP.

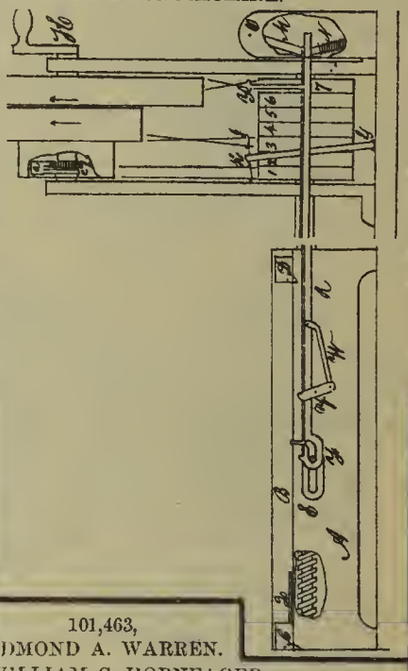


101,460, IRA A. HEBBARD.
HARVESTER-CUTTERS.

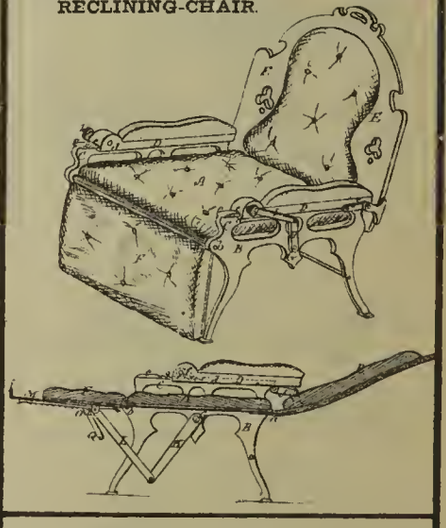


101,461. J. HEROLD. WATER PROOF COMPOSITION FOR HARNESS. LEATHER. &c.

101,462, ALFRED M. HILLS.
PLANING-MACHINE.

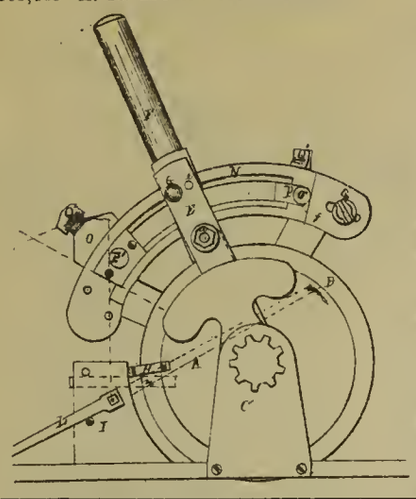


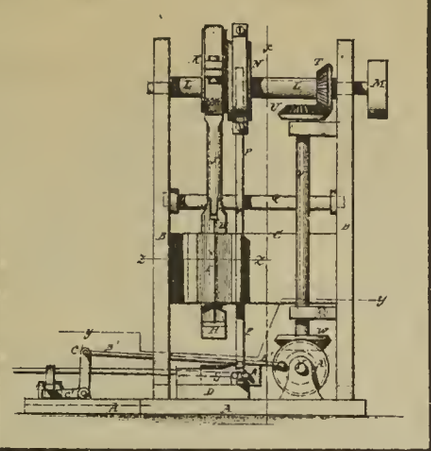
101,463,
EDMOND A. WARREN.
WILLIAM C. HORNFAGER.
RECLINING-CHAIR.



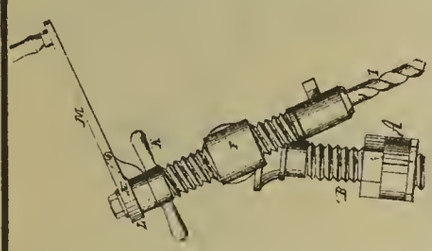
101,464, ELIAS H. HULL.
CANNON-PINION FOR WATCHES.

101,465 E. H. HULL. SAW-MILLS.

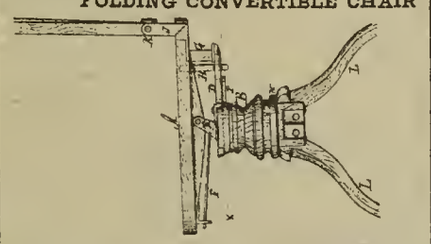




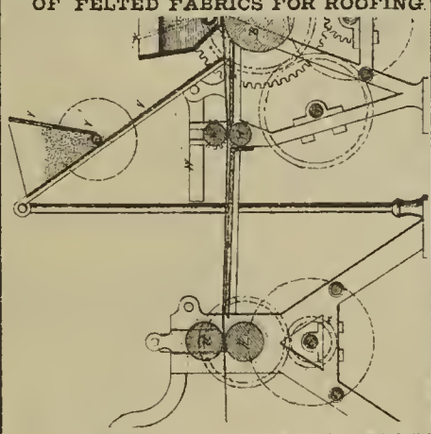
101,466, JAS. E. HUNTER. HAND DRILLING-MACHINE.



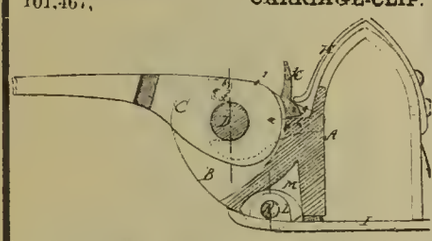
101,472, WM. B. KIMBALL. FOLDING CONVERTIBLE CHAIR



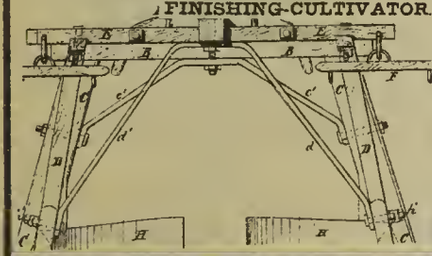
101,473, SAMUEL KINGAN. MACHINES FOR THE MANUFACTURE OF FELTED FABRICS FOR ROOFING.



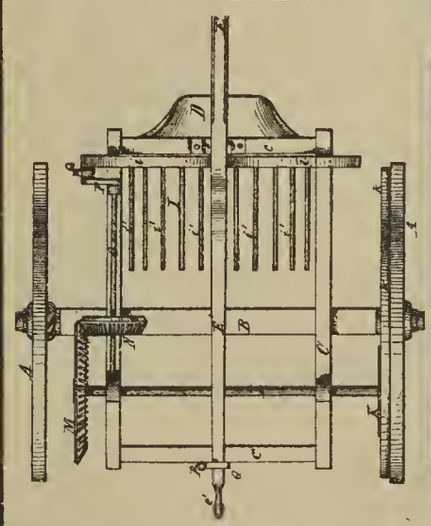
LEONARD A. JOHNSON. 101,467, CARRIAGE-CLIP.



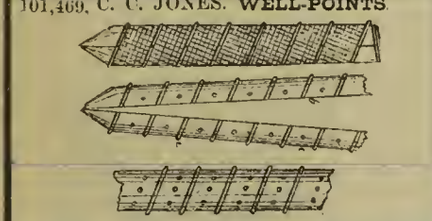
101,468, BENJAMIN JOHNSTON. FINISHING-CULTIVATOR.



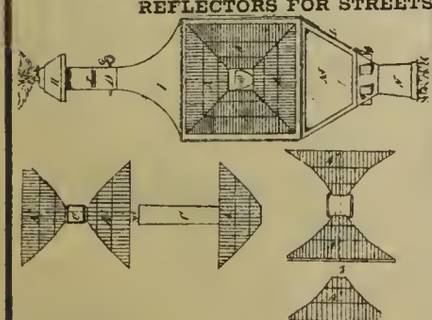
101,474, MELVIN W. KNOX. POTATO-DIGGERS.



101,469, C. C. JONES. WELL-POINTS.



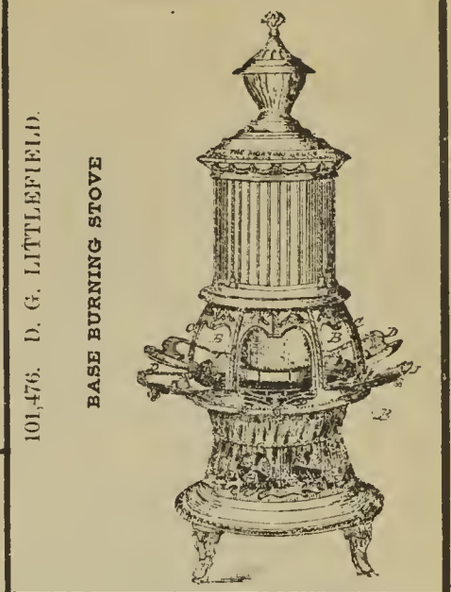
101,470, ABRAHAM KEEFER GRIM. AUSTIN D. MOORE. REFLECTORS FOR STREETS.



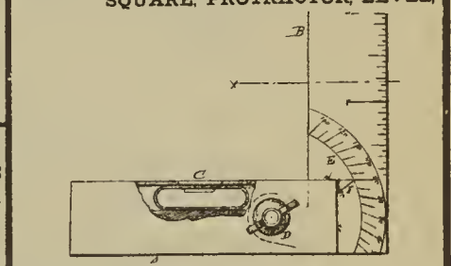
101,475, GEO. D. LEONARD. COUNTER SHOW-CASE.

101,471, C. W. KENNEDY. STAPLE MACHINE

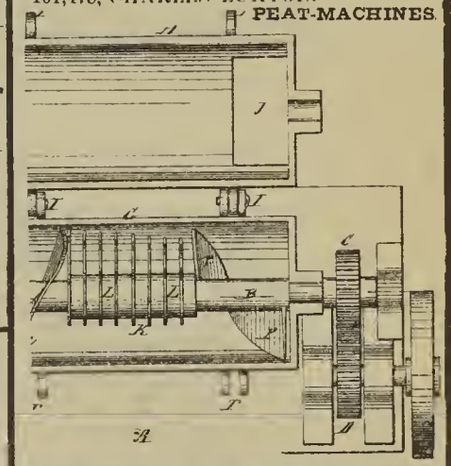
101,476, D. G. LITTLEFIELD. BASE BURNING STOVE



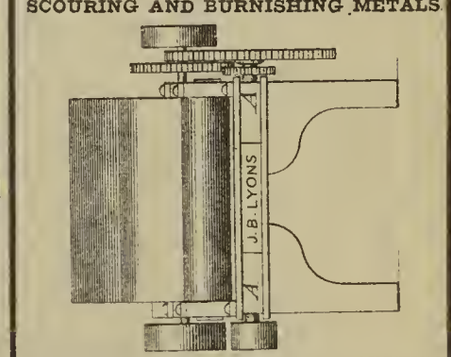
101,477, J. A. LITTLEFIELD. COMBINED SQUARE, PROTRACTOR, LEVEL.



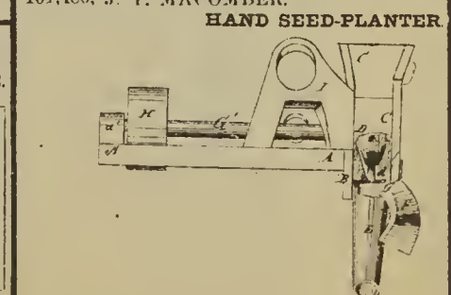
101,478, CHARLES LUXTON. PEAT-MACHINES.

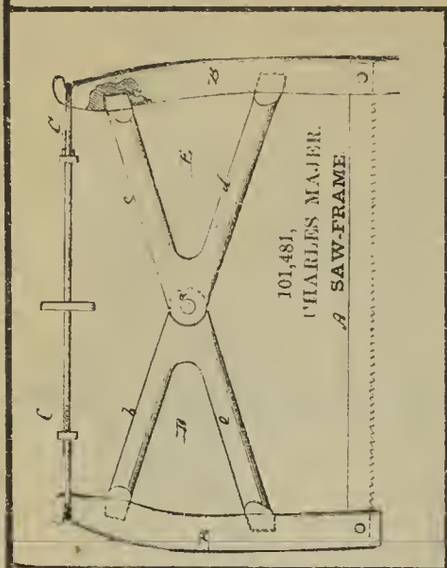


101,479, JAS. B. LYONS MACHINE FOR SCOURING AND BURNISHING METALS.



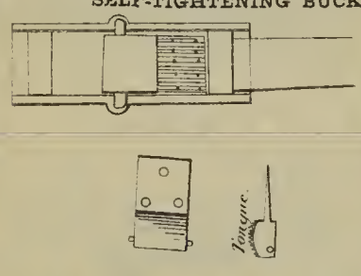
101,480, J. T. MACOMBER. HAND SEED-PLANTER.



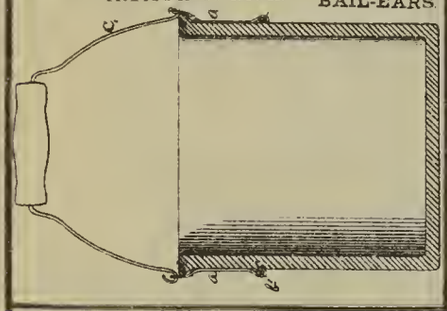


101,481, CHARLES MAJER. SAW-FRAME.

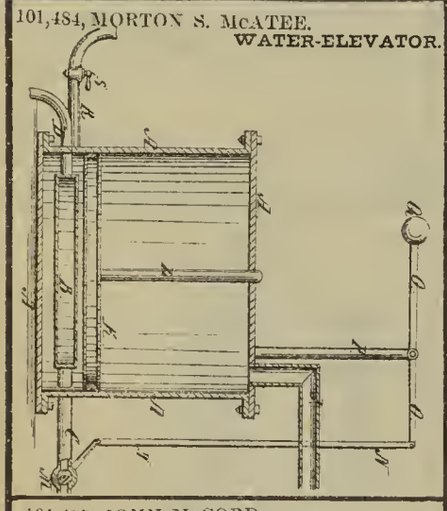
101,482, MATTHIAS MARVIN. SELF-TIGHTENING BUCKLE.



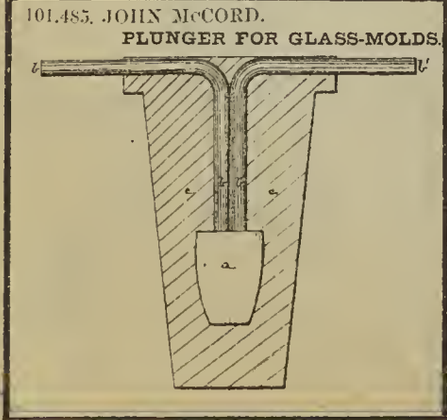
101,483. WILLIAM D. MASON. ARTHUR T. RICE. BAIL-EARS.



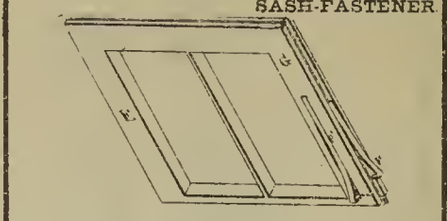
101,484, MORTON S. McATEE. WATER-ELEVATOR.



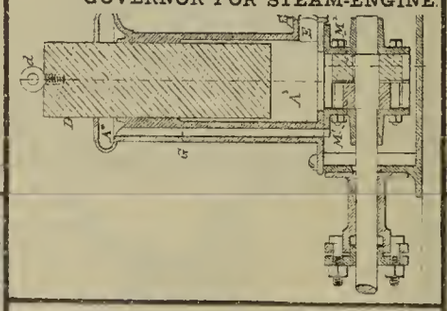
101,485. JOHN McCORD. PLUNGER FOR GLASS-MOLDS.



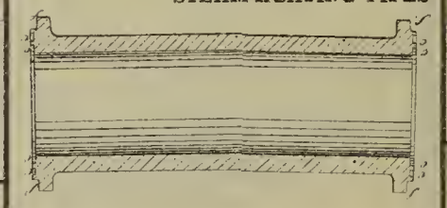
101,486. JOHN S. McGLUMPHY. SASH-FASTENER.



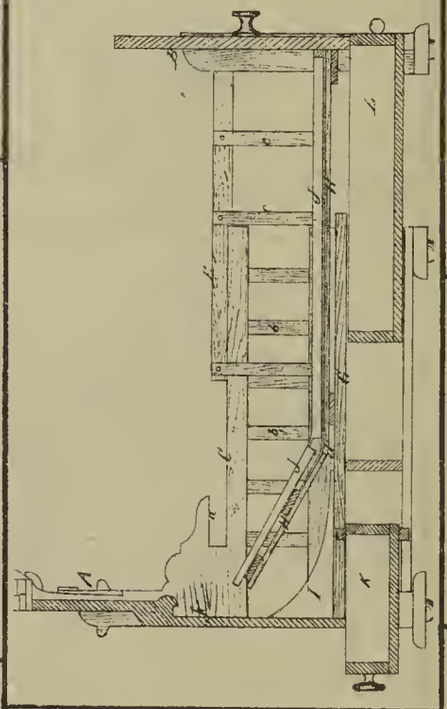
101,487. H. D. McMASTER. ABRAHAM DALE. GOVERNOR FOR STEAM-ENGINE.



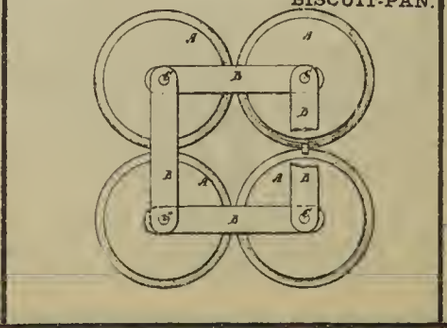
101,488. WILLIAM MENDHAM. STEAM-HEATING PIPES.



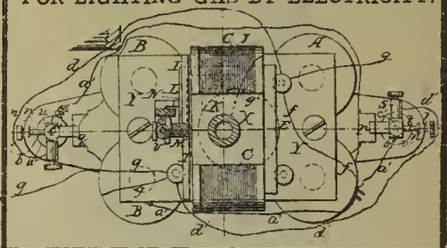
101,489. FREDRK. MENZER. EXTENSION BED.



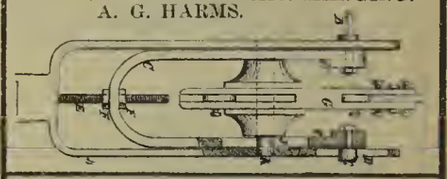
101,490, JNO. C. MILLIGAN. BISCUIT-PAN.



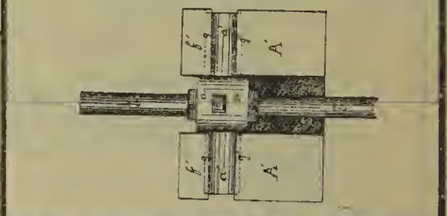
101,491, WALTER J. MORRIS. WM. J. REID. APPARATUS FOR LIGHTING GAS BY ELECTRICITY.



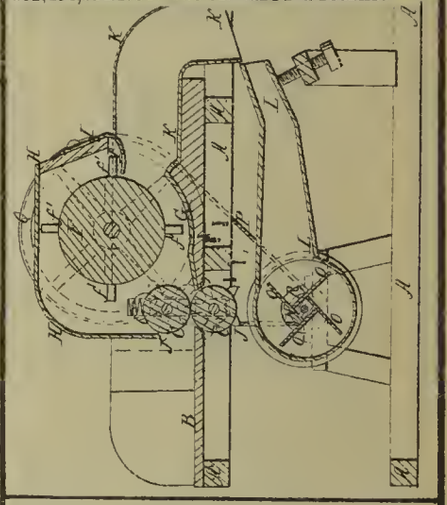
101,492, L. MORRISON. SAW-HANGING. A. G. HARMS.



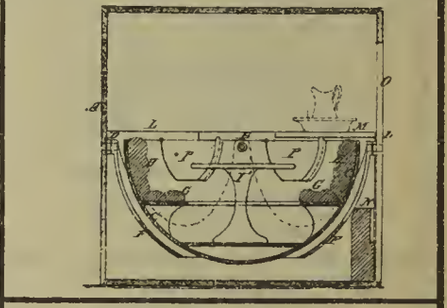
101,493, MARCELLUS A. MORSE. WALKING-BEAM AND SUCKER-ROD CONNECTIONS FOR DEEP WELLS.



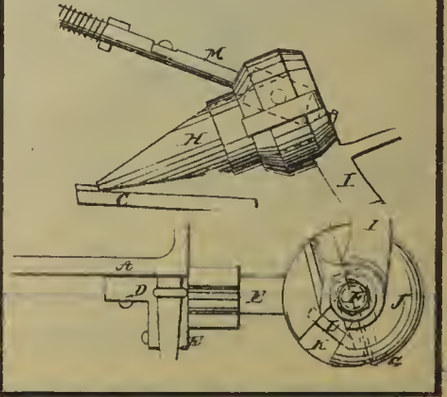
101,494, MYRON MOSES. HOP-PICKER.



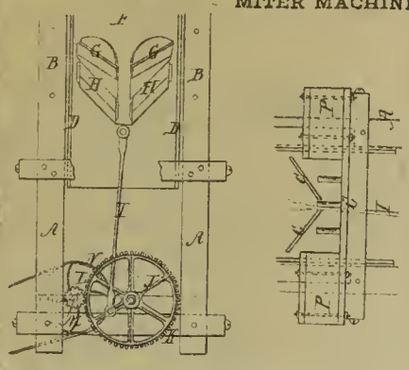
101,495, LORENZO D. NEWELL. MARINE FURNITURE.



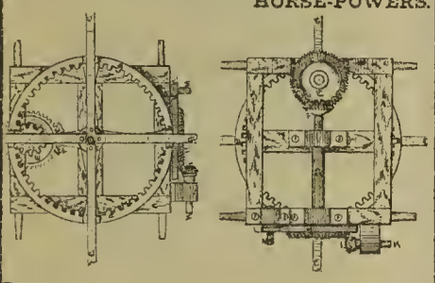
101,496. JAMES NOLAN. FEEDING APPARATUS FOR NAIL-MACHINES.



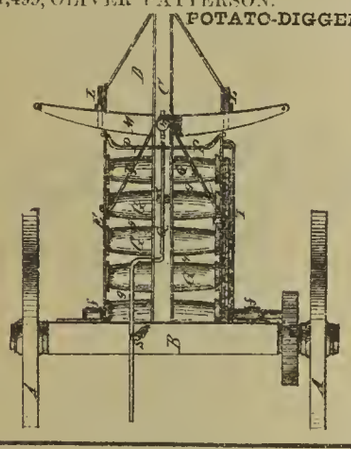
101,497, JOHN NONNENBACHER.
MITER MACHINE.



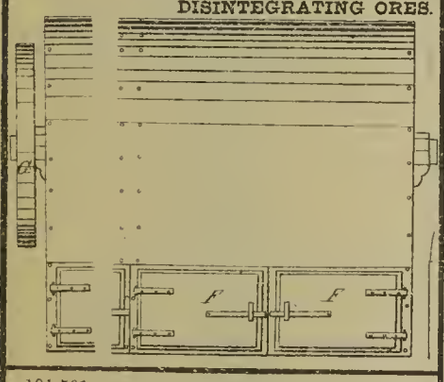
101,498, GEORGE OERLLEIN.
HORSE-POWERS.



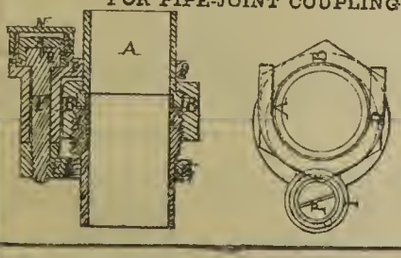
101,499, OLIVER PATTERSON.
POTATO-DIGGERS.



101,500, ALMARIN B. PAUL.
APPARATUS FOR DISINTEGRATING ORES.

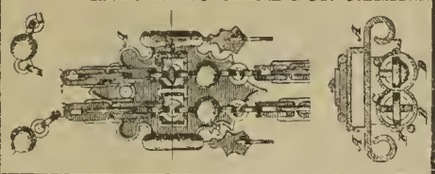


101,501, CHARLES PERKES.
SEALING-APPARATUS FOR PIPE-JOINT COUPLINGS.

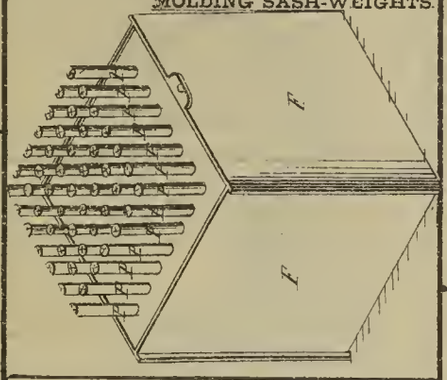


101,502, OLIVER H. PERRY.
WOOD-TURNING LATHES.

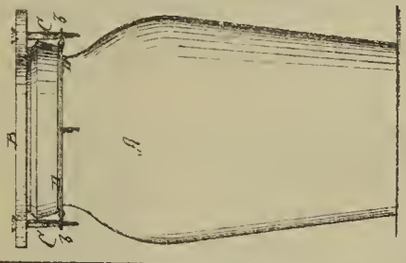
101,503, ROBT. JAS. POND.
ADJUSTING-SLIDE FOR CHAINS.



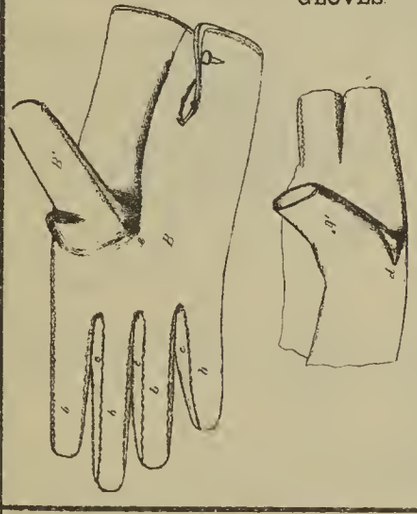
101,504 W. W. PULLIS.
MOLDING SASH-WEIGHTS.



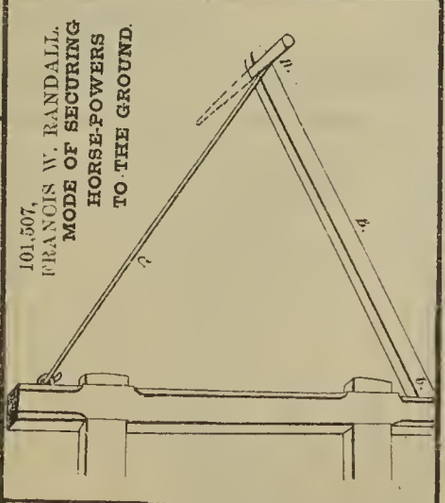
101,505, T. C. PURDY. FRUIT-JARS.



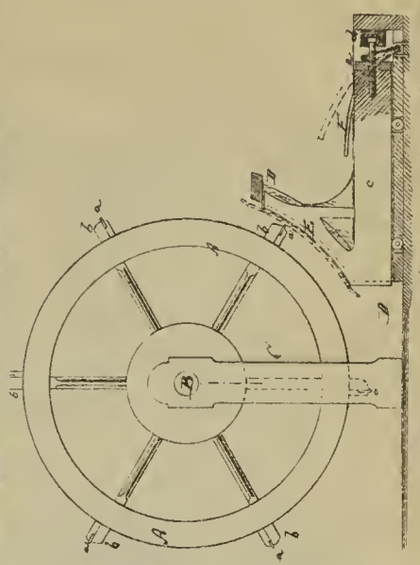
101,506, JOHN H. PUTMAN.
GLOVES.



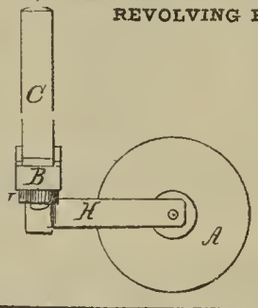
101,507, FRANCIS W. RANDALL.
MODE OF SECURING HORSE-POWERS TO THE GROUND.



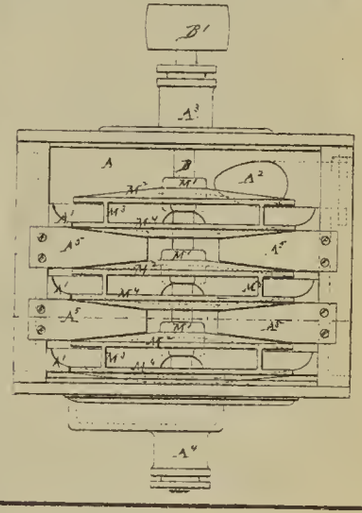
101,508. ARCHIBALD W. REID.
MACHINES FOR SCOURING AND SETTING OUT LEATHER.



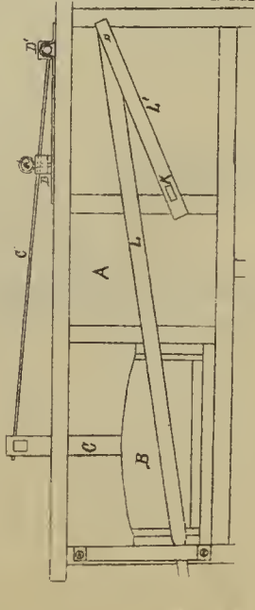
101,509 MERRITT RICHARDS.
REVOLVING PLOW-COLTER.



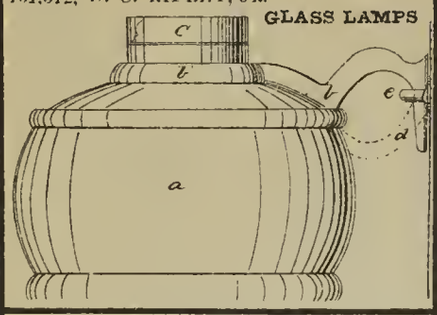
101,510, A. K. RIDER.
COMPOUND BLOWERS.



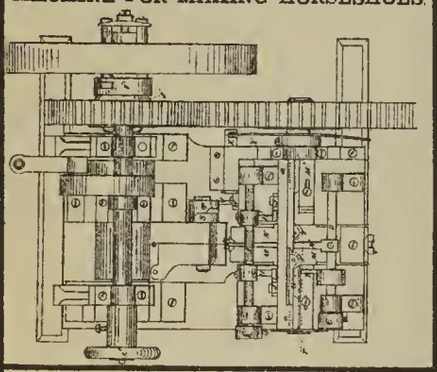
101,511. WM. RILEY.
WASHING-MACHINE.



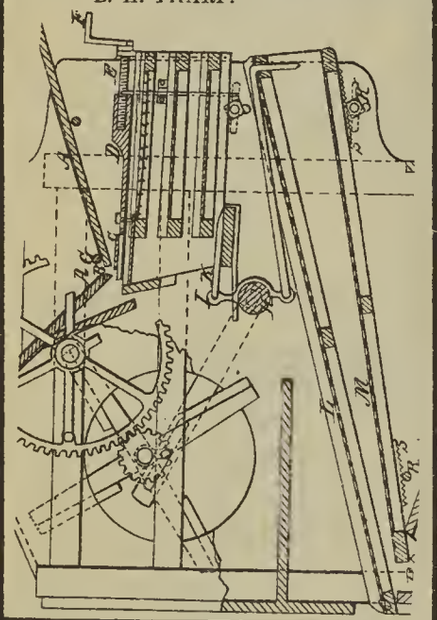
101,512, D. C. RIPLEY, Jr. GLASS LAMPS



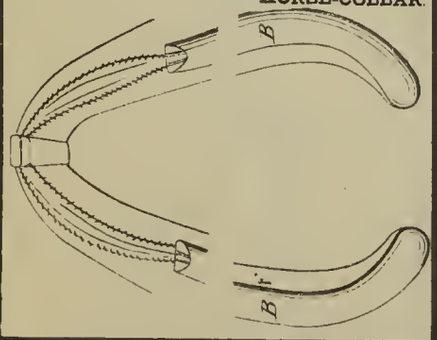
101,513, L. D. ROBERTS. MACHINE FOR MAKING HORSESHOES.



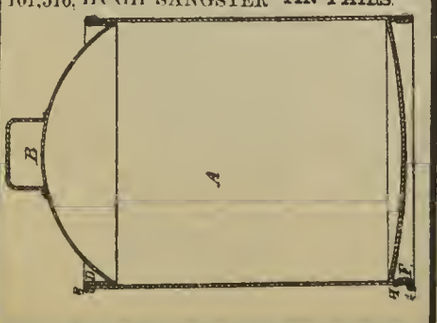
101,514, J. L. RUNK. B. H. THARP. FANNING-MILLS.



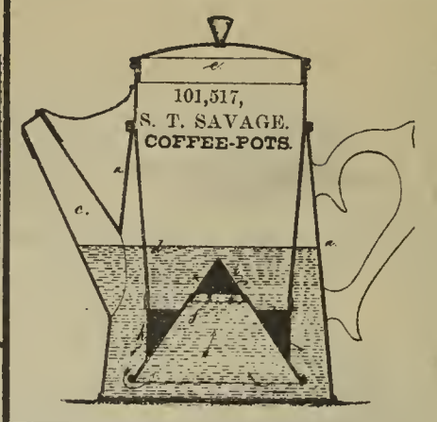
101,515, HENRY SANDERS. HORSE-COLLAR.



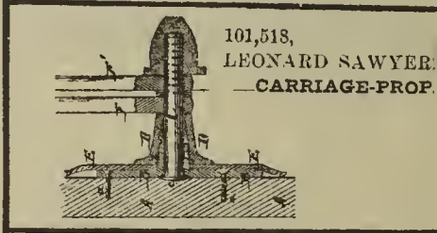
101,516, HUGH SANGSTER TIN PAILS.



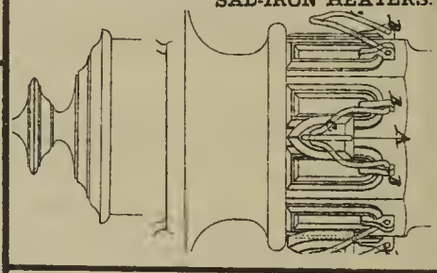
101,517, S. T. SAVAGE. COFFEE-POTS.



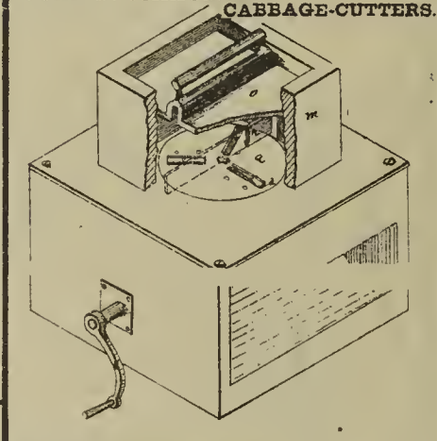
101,518, LEONARD SAWYER. CARRIAGE-PROP.



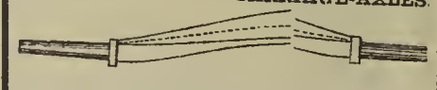
101,519, WILLIAM SCARLETT. SAD-IRON HEATERS.



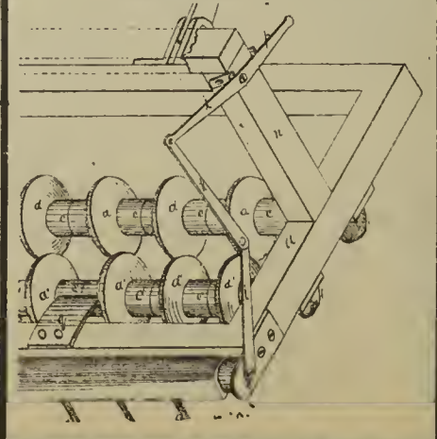
101,520, JOHN D. SCHAUB. CABBAGE-CUTTERS.



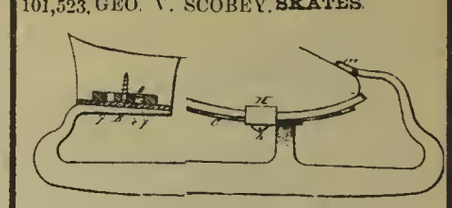
101,521, FRANCIS SCHERB. CARRIAGE-AXLES.



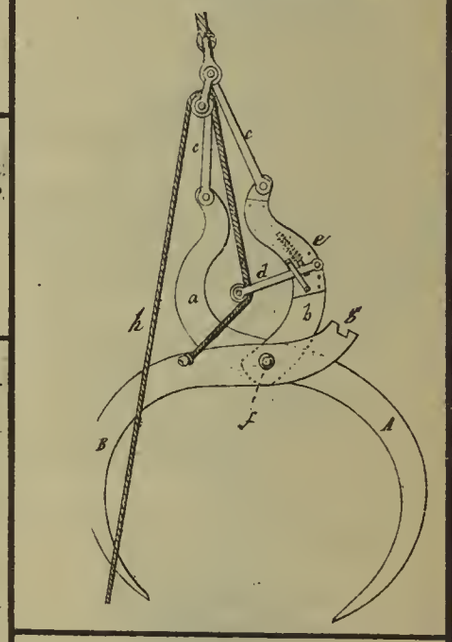
101,522, JOHN SCHROEFFEL. WILLIAM DELL. HARROW AND EARTH-CUTTER.



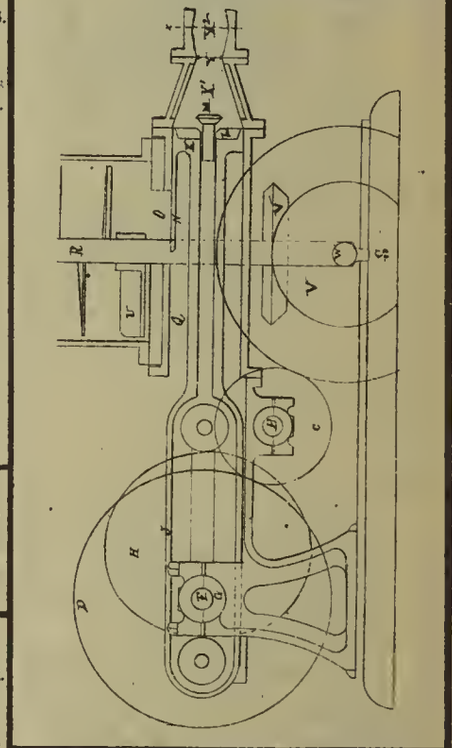
101,523, GEO. V. SCOBEY. SKATES.



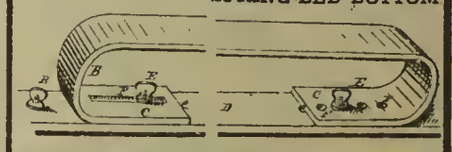
101,524, E. U. SCOVILLE. HORSE HAY-FORKS.



101,525, GEORGE SCOTT. BRICK AND TILE-MACHINES.

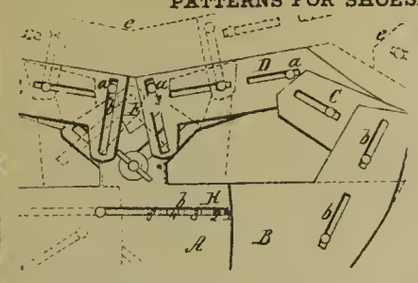


101,526, D. N. SELLIG. SPRING-BED BOTTOM.

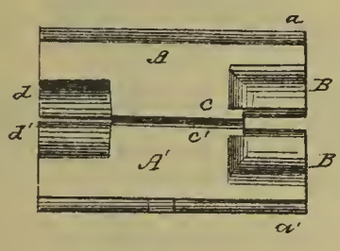


101,527, JAMES E. SHARP. ELEAZER AINSWORTH. FREDERICK A. SABBATON. COVERING FOR STEAM-BOILERS.

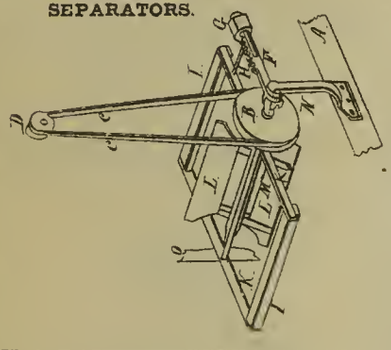
101,528, E. SHOPBELL.
PATTERNS FOR SHOES.



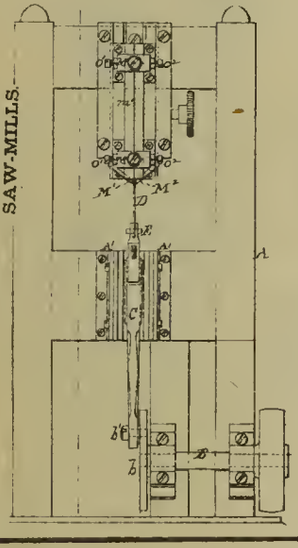
101,529, FREDK. J. SMITH.
DIE FOR MAKING CHORD-BAR HEADS



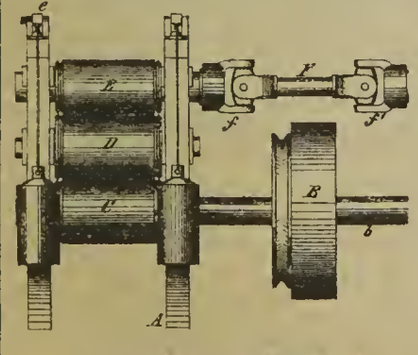
101,530, BENJAMIN H. SNAVELY.
SEPARATORS.



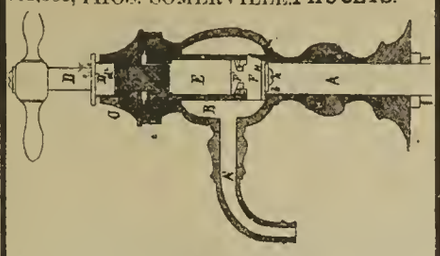
101,531, H. F. SNYDER.
G. S. SNYDER.
SAW-MILLS.



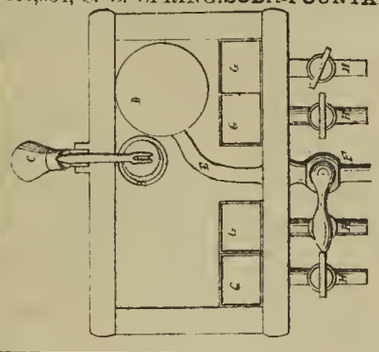
101,532, WM. H. SOLEY.
GEORGE STITES.
FRICTION CALENDER ROLLS FOR PAPER.



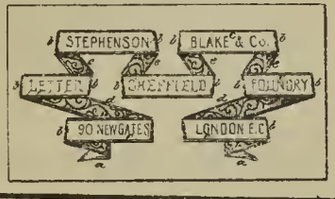
101,533, THOS. SOMERVILLE. **FAUCETS.**



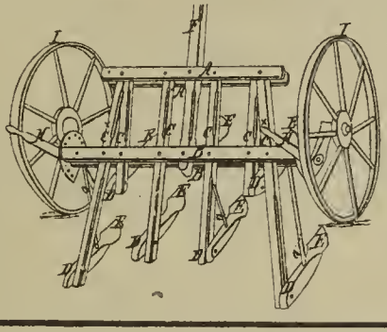
101,534, S. B. SPRING. **SODA-FOUNTAINS.**



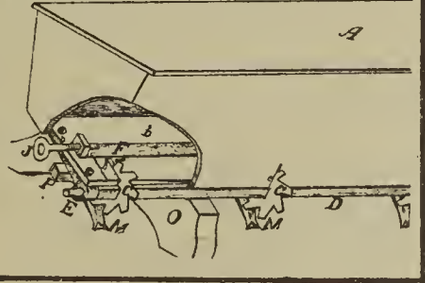
101,535, HENRY STEPHENSON.
WM. THOMPSON.
WILLIAM GREAVES BLAKE.
ORNAMENTAL-SCROLL TYPE.



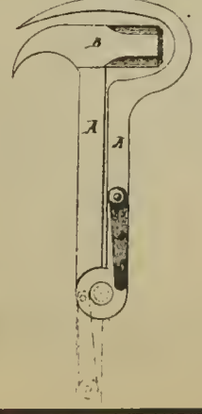
101,536, GARLAND B. ST. JOHN.
CULTIVATORS.



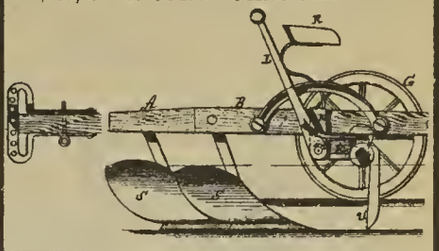
101,537, GARLAND B. ST. JOHN.
ATTACHMENT TO SEEDING-MACHINES.



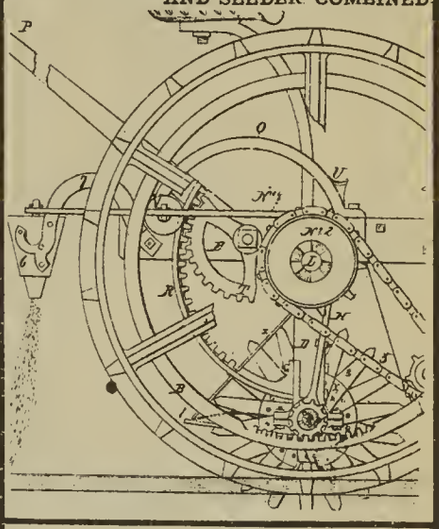
101,538, ROBERT STOUT.
HORSESHOEING-TOOL.



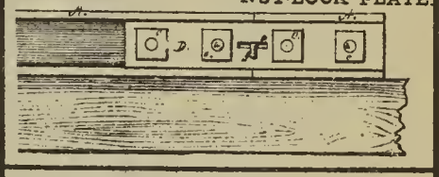
101,539, J. W. SURSA. **GANG-PLOWS.**



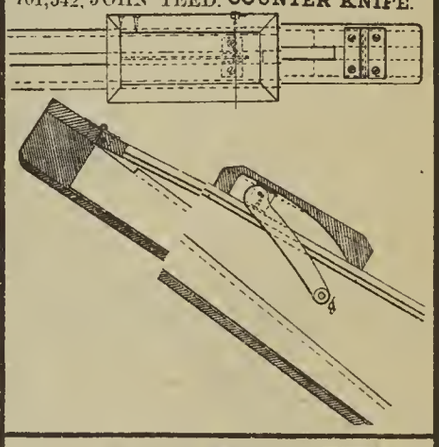
101,540, AUGUSTIN L. TAVEAU.
REVOLVING SULKY-HARROW AND SEEDER COMBINED.



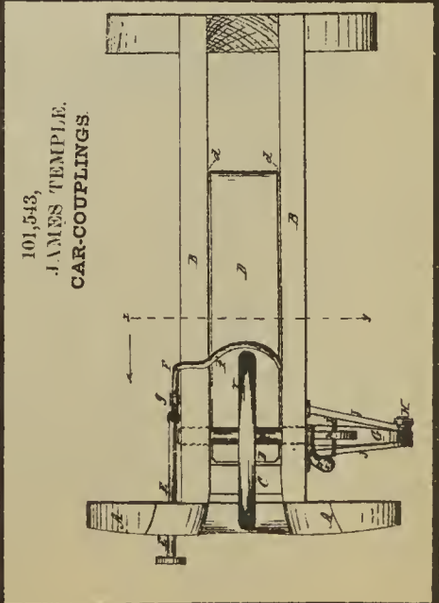
101,541, ESAU D. TAYLOR.
NUT-LOCK PLATE.



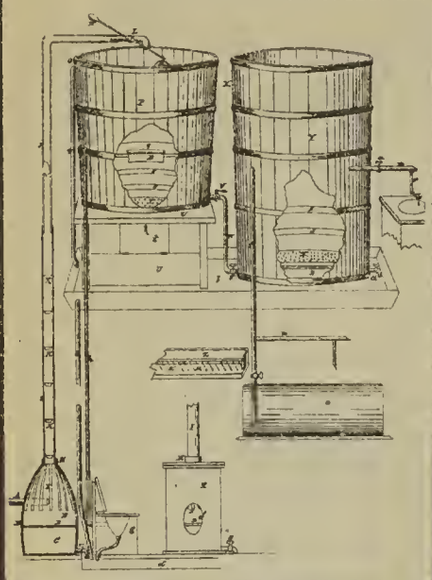
101,542, JOHN TEED. **COUNTER KNIFE.**



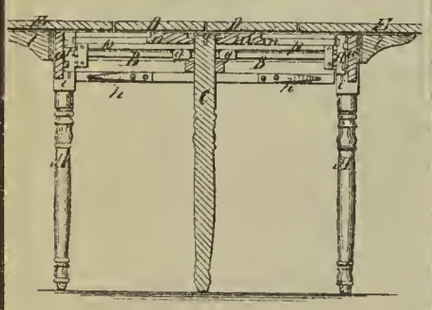
101,543,
JAMES TEMPLE.
CAR-COUPLINGS.



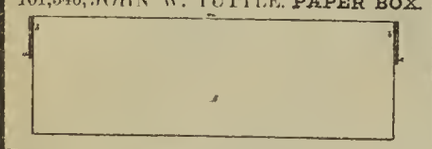
101,544, JOHN A. THOMPSON.
PROCESS AND APPARATUS FOR SUPPLYING PURE WATER TO BUILDINGS.



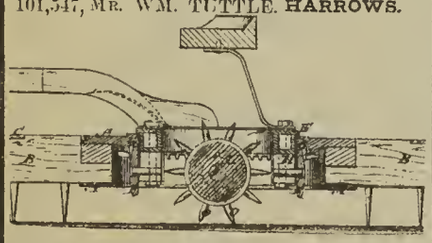
101,545, SMILIE TILTON.
EXTENSION-TABLE.



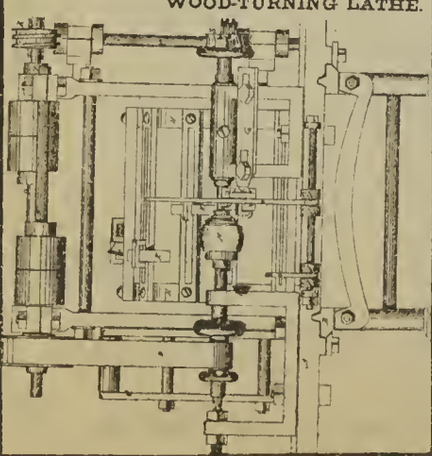
101,546, JOHN W. TUTTLE. PAPER BOX.



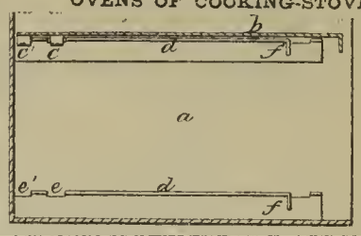
101,547, MR. WM. TUTTLE. HARROWS.



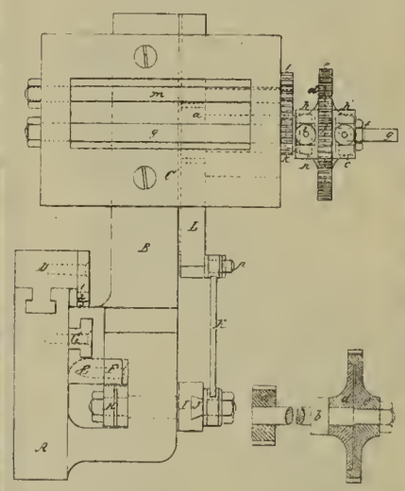
101,548, J. J. URMSTON.
WOOD-TURNING LATHE.



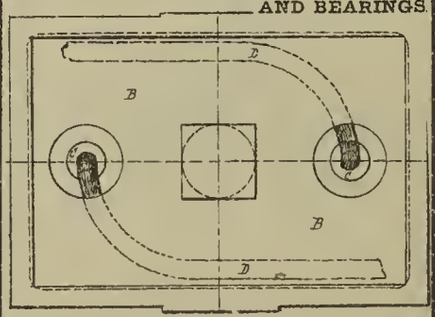
101,549, SAMUEL S. UTTER SHELVES FOR OVENS OF COOKING-STOVES.



101,550, HORATIO B. WEAVER.
FEED FOR IRON-PLANERS.



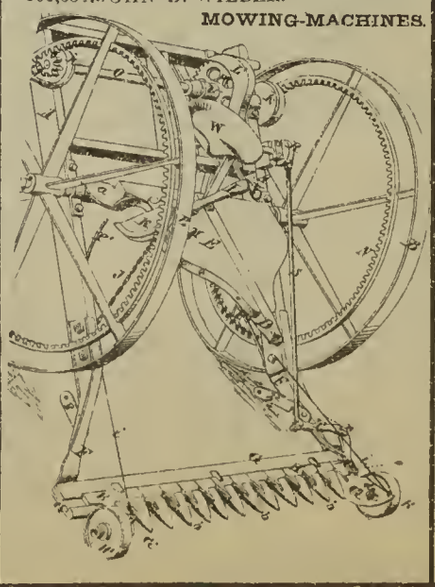
101,551, ISAAC P. WENDELL.
LUBRICATING JOURNALS AND BEARINGS.



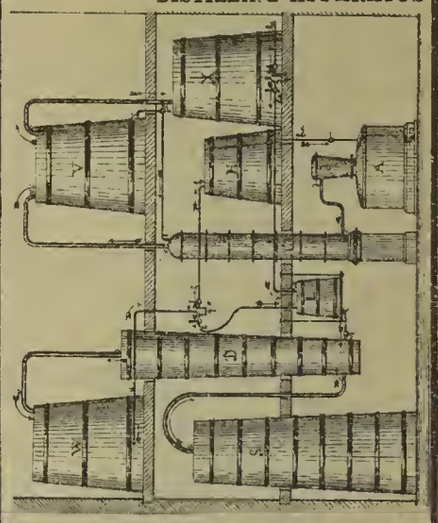
101,552, SYLVESTER P. WHEELER.
MANUFACTURE OF ARTICLES OF COMPRESSED WOOD.

101,553, SYLVESTER P. WHEELER.
PROCESS OF TREATING WOOD.

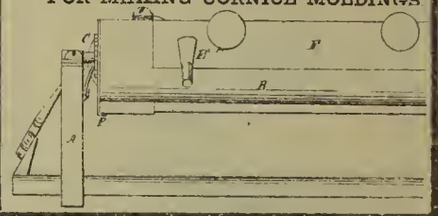
101,554, JOHN D. WILBER.
MOWING-MACHINES.



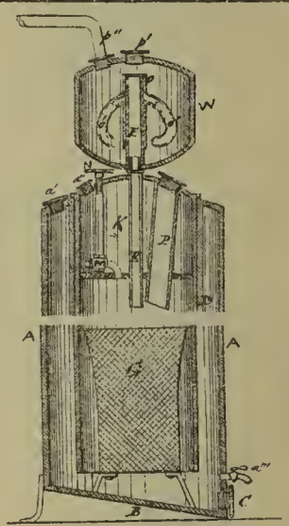
101,555, LUDWIG WOLFF.
COMBINATION DISTILLING APPARATUS



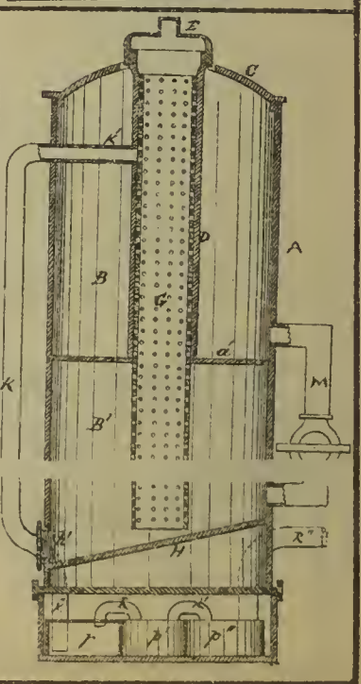
101,556, C. L. WOOD. C. A. SHERIDAN.
MACHINE FOR MAKING CORNICE MOLDINGS.



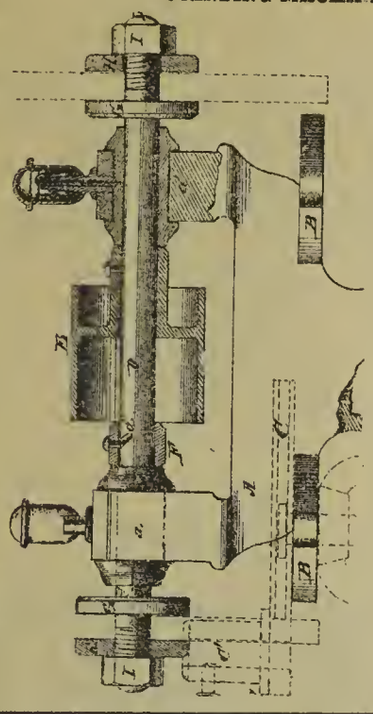
101,557, JOSEPH S. WOOD.
APPARATUS FOR GENERATING AND CARBURETING HYDROGEN GAS.



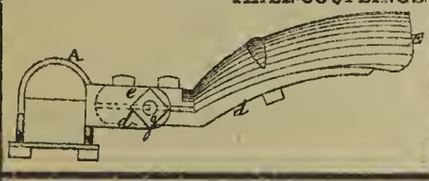
101,558, JOSEPH S. WOOD.
GENERATING HYDROGEN AND HYDROCARBON GAS.



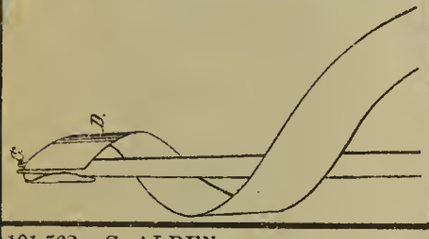
101,559, THOS. H. WORRALL.
GRINDING-MACHINES.



101,560, EDMUND YEISER.
THILL-COUPLINGS.

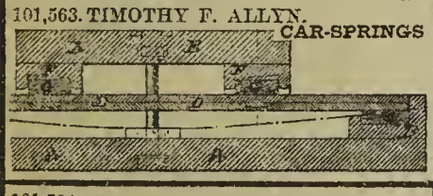


101,561, WILLIAM D. YOUNG.
CURLING-ROD
FOR PAPER CIGAR-LIGHTERS.

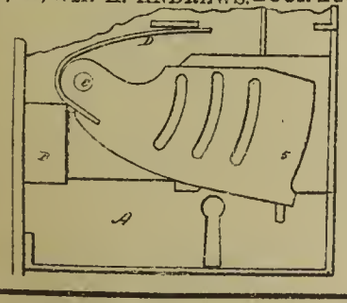


101,562. C. ALDEN.
PREPARING TOMATOES AND OTHER FRUITS AND VEGETABLES TO BE USED AS FOOD.

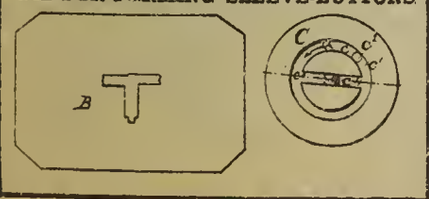
101,563. TIMOTHY F. ALLYN.
CAR-SPRINGS



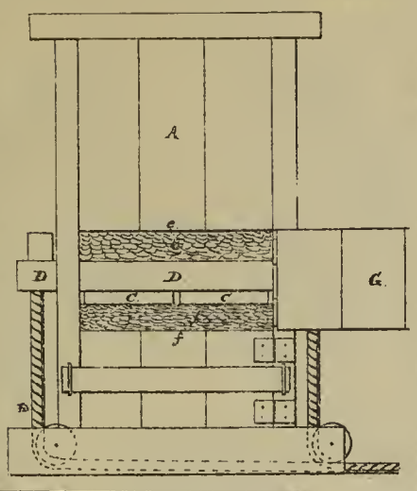
101,564, WM. H. ANDREWS. DOOR-LOCKS.



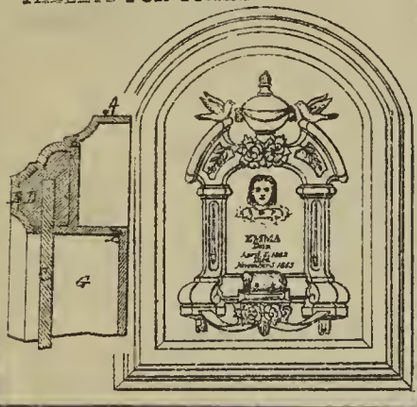
101,565, HENRY ANSLEY.
DIE FOR FORMING SLEEVE-BUTTONS.



101,566, G. H. AYLWORTH.
HAY-PRESSES.

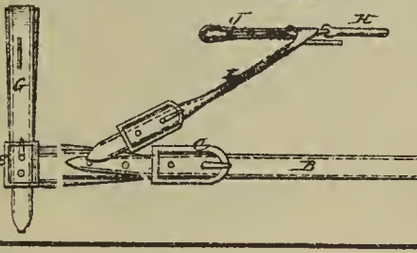


101,567, H. F. BAILEY.
TABLETS FOR TOMBS.

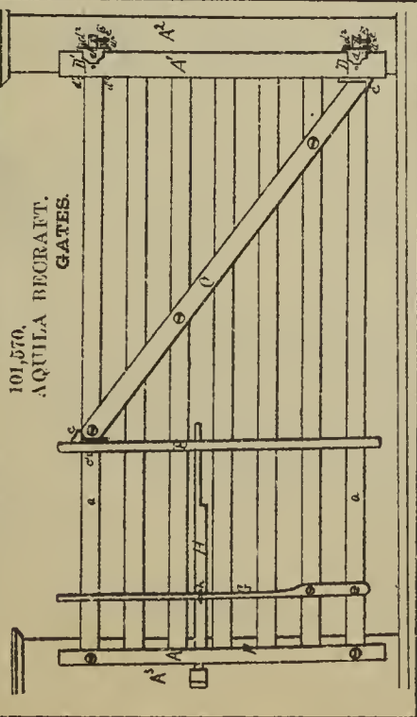


101,568, HENRY B. BARBER. GUN-SIGHTS.

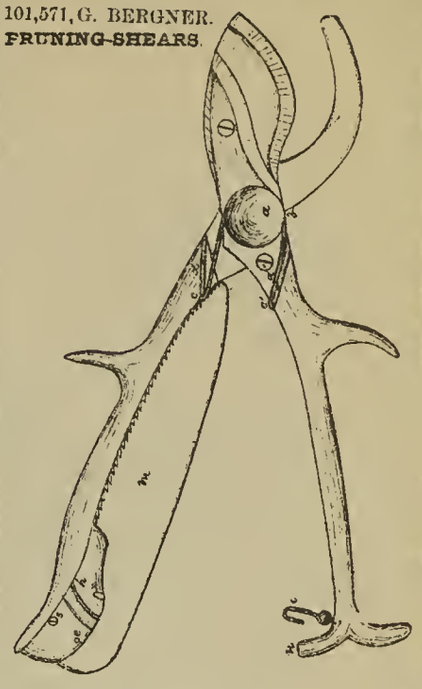
101,569, ELZY L. BASNETT. HARNESS.



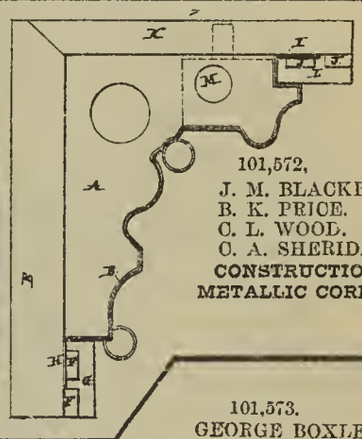
101,570.
AQUILA BECRAFT.
GATES.



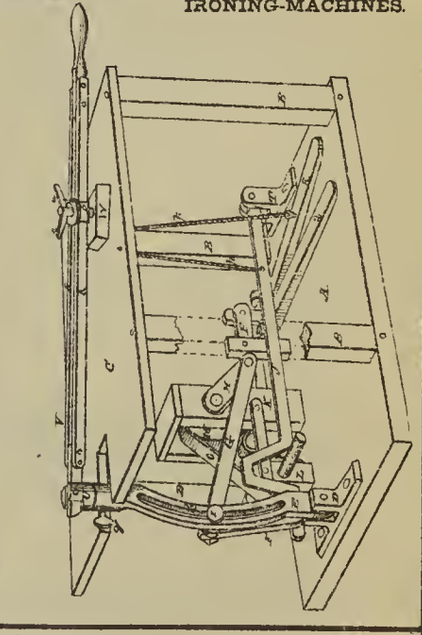
101,571, G. BERGNER.
PRUNING-SHEARS.



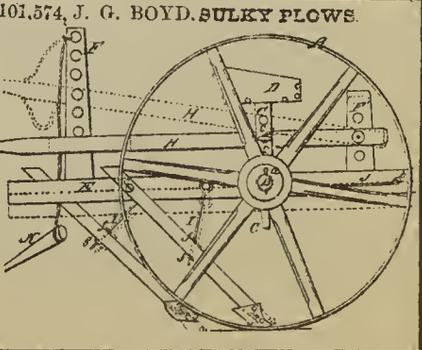
101,572,
J. M. BLACKBURN.
B. K. PRICE.
C. L. WOOD.
C. A. SHERIDAN.
CONSTRUCTION OF METALLIC CORNICE.



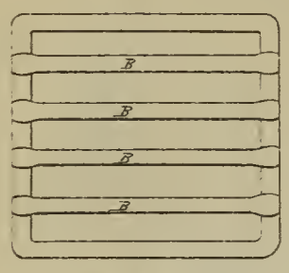
101,573.
GEORGE BOXLEY.
IRONING-MACHINES.



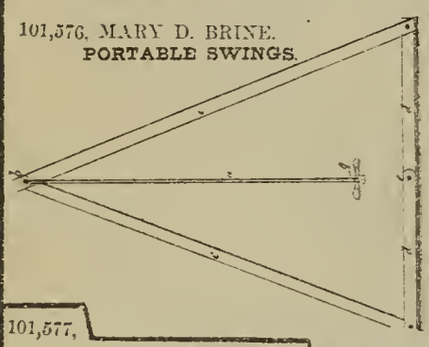
101,574, J. G. BOYD. SULKY PLOWS.



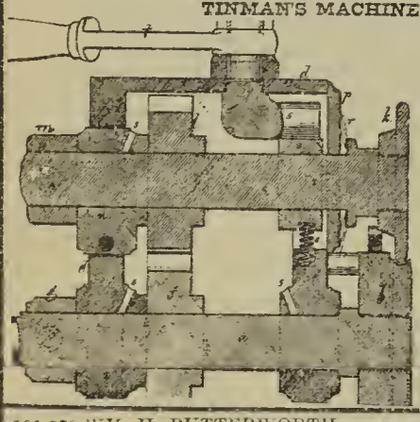
101,575, ZEBINA L. BRAGDON. SEWER-GRATE



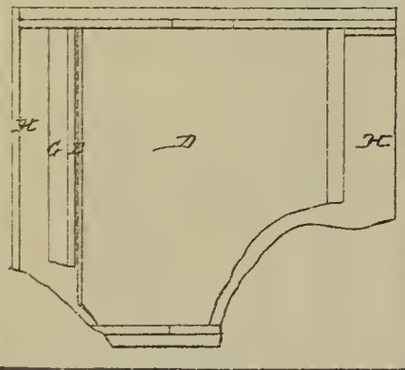
101,576, MARY D. BRINE. PORTABLE SWINGS.



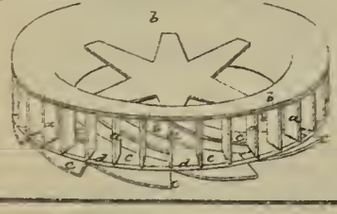
101,577, CHAS. BROMBACHER. TINMAN'S MACHINE.



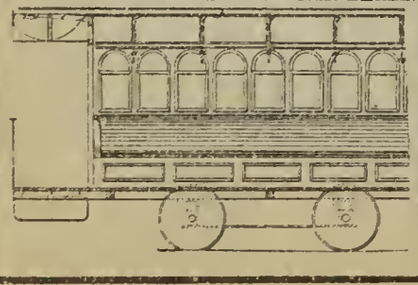
101,578, WM. H. BUTTERWORTH. THRASHING-MACHINES.



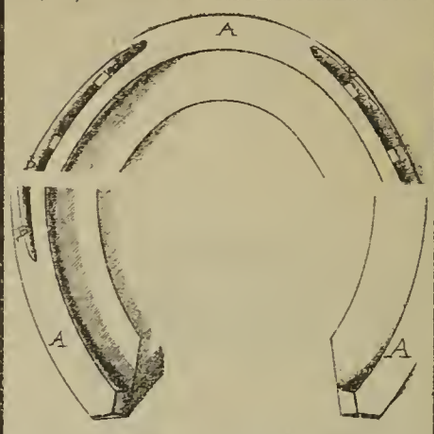
101,579, JOHN BUZBY. WATER-WHEELS.



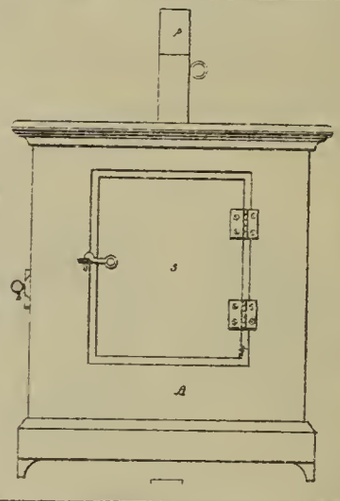
101,580, CHARLES CARR. DEVICE FOR RINGING STREET-CAR BELLS.



101,581, EBENEZER CATE. HORSESHOES.

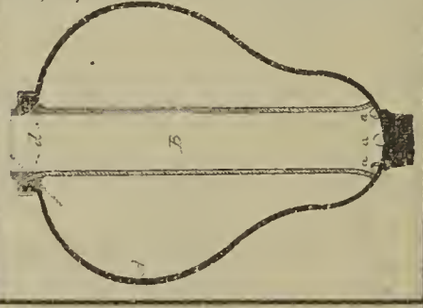


101,582, A. J. CHASE. REFRIGERATOR

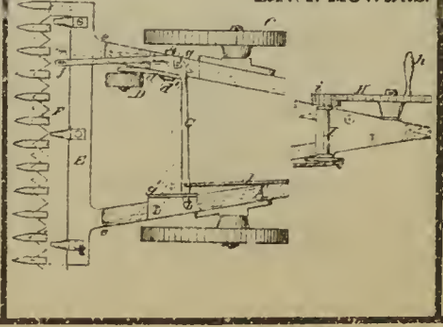


101,583, E. CLARK. REGISTERING STEAM-GAUGE.

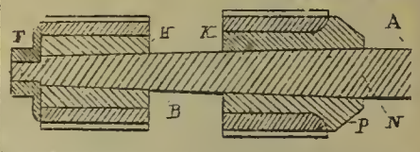
101,584, HEZEKIAH M. CLARK. LAMPS.



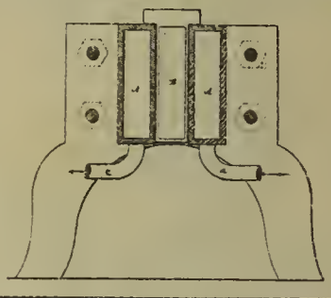
101,585, CHARLES M. CLINTON. LAWN-MOWERS.



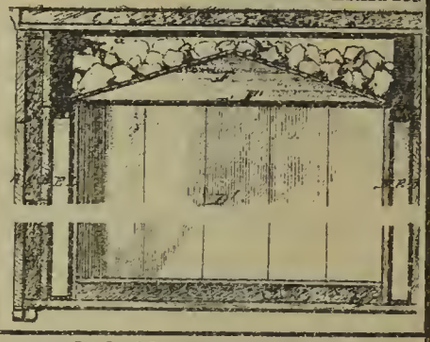
101,586, T. M. CLUXTON. WAGON-AXLES



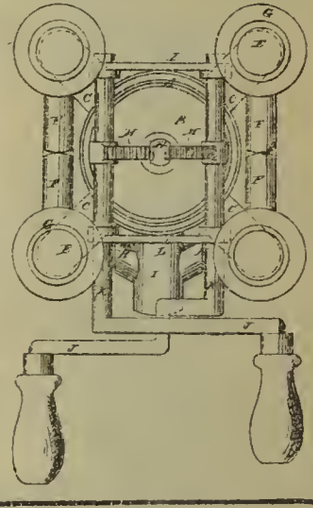
101,587, EDWARD F. COFFIN. MOLDING AND CLARIFYING HORN.



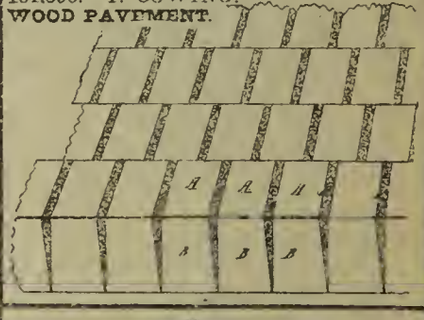
101,588, EDWARD S. COLTON. REFRIGERATOR.



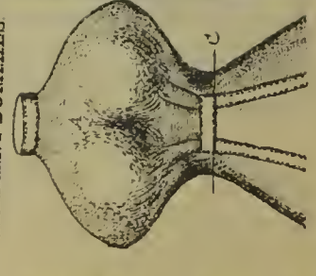
101,589, L. O. COLVIN. COW-MILKERS.



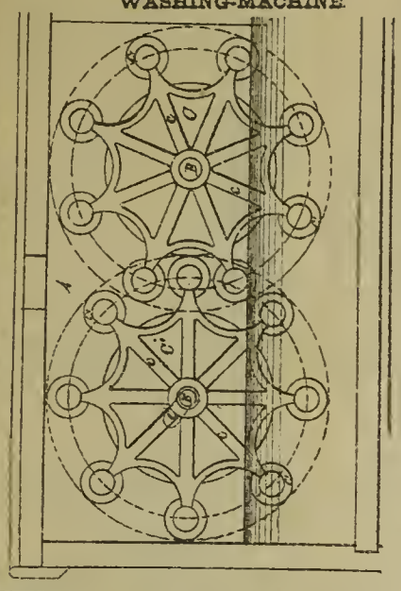
101,590, T. COWING. WOOD PAVEMENT.



101,591, A. M. DAVIS. GARMENT-DUMMIES



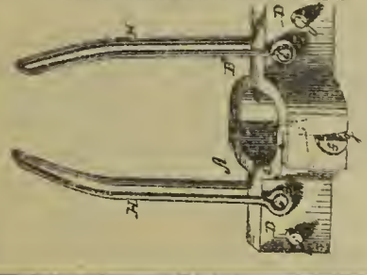
101,592, CYRUS DEAN.
WASHING-MACHINE.



101,593, WILLIAM P. DEMAREST.
SHOE-TRIMMING.

101,594, E. J. DE SMEDT.
COMPOSITION ROOFING, PAVING, &c.

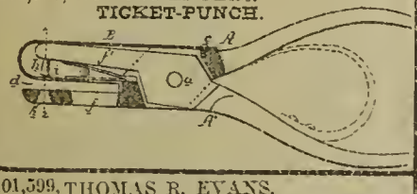
101,595, WM. H. DOWNING.
LIFTING-CLAMPS FOR PUMPS.



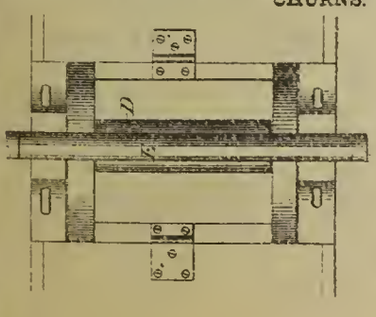
101,596, H. J. DURGIN. REVOLVING
CENTER-REST FOR WOOD-LATHES.

101,597, GEORGE W. ELDRIDGE.
FIRE-KINDLING.

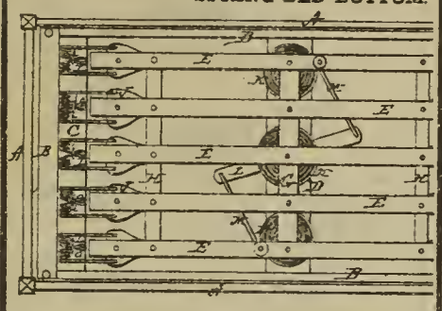
101,598, ROBERT ENGELS.
TICKET-PUNCH.



101,599, THOMAS R. EVANS.
CHURNS.



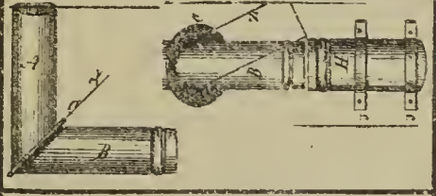
101,600, MATTHEW FALOON.
SPRING-BED BOTTOM.



101,601, F. FANNING.
WIRE-TIGHTENER
FOR WIRE FENCE.

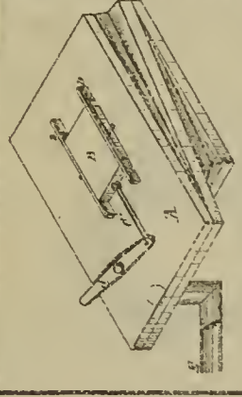
101,602, DR. JOSEPH FANYOU.
GALVANIC SHOE-SOLES.

101,603, J. D. FIELD. ADJUSTABLE
ELBOW-JOINTS FOR WATER-PIPES.

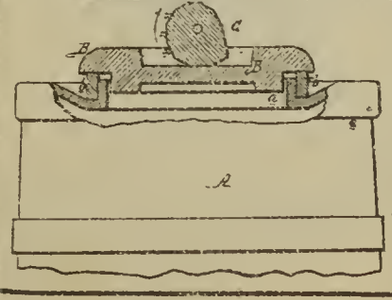


101,604. A. C. FLETCHER. ADHESIVE
POSTAL AND REVENUE STAMP

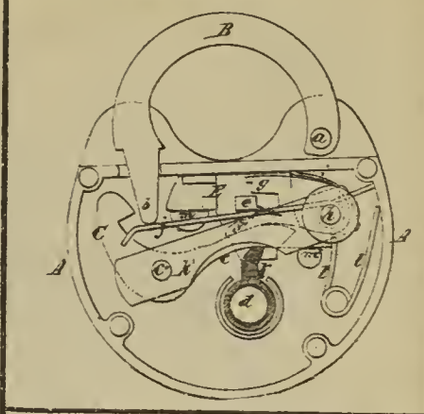
101,605, CARL FOGELBERG.
MELODY ATTACHMENT FOR ORGANS.



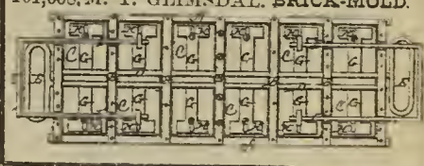
101,606, WM. GALLOWAY.
FASTENINGS FOR FRUIT-JARS.



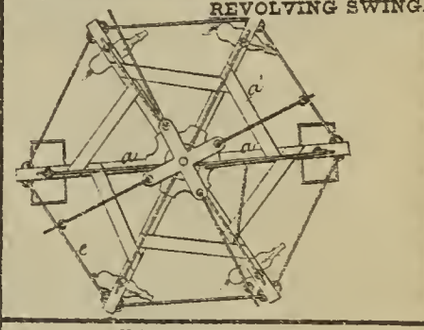
101,607, CHARLES T. GIBSON.
PADLOCKS.



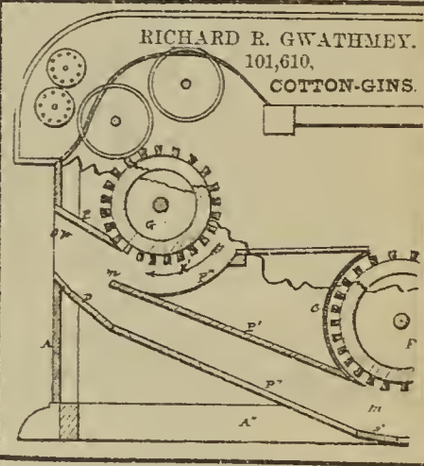
101,608, M. T. GLIMSDAL. BRICK-MOLD.



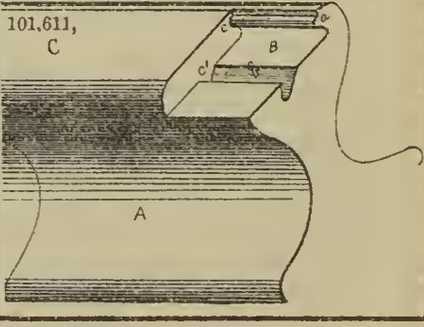
101,609. ALMERON GRAVES.
REVOLVING SWING.



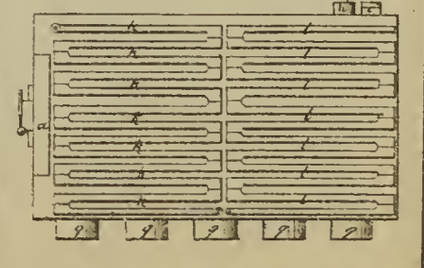
RICHARD R. GWATHMEY.
101,610.
COTTON-GINS.



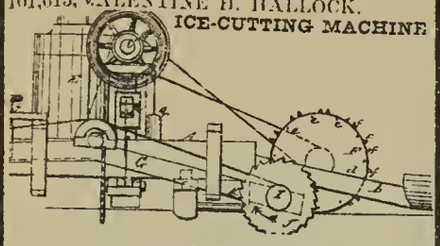
JOHN C. HAGAN. RAILWAY-RAILS.
101,611,



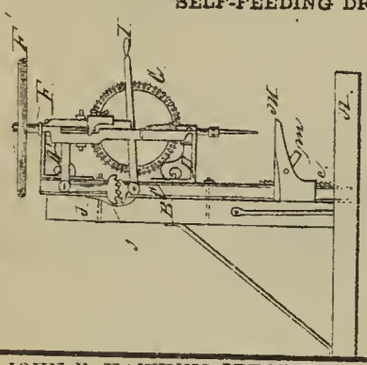
101,612, FREDRICK P. HALLBERG.
STEAM-HEATER.



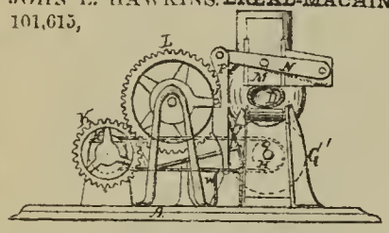
101,613, VALENTINE H. HALLOCK.
ICE-CUTTING MACHINE



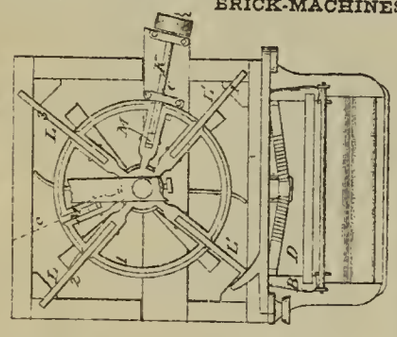
101,614, JOSEPH H. HANES.
SELF-FEEDING DRILL



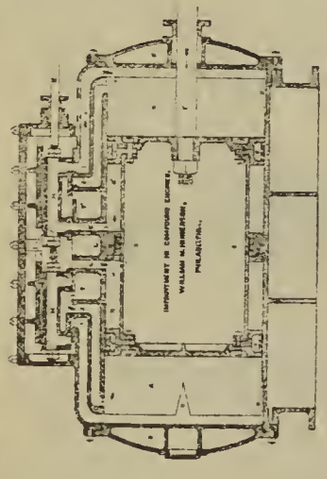
JOHN E. HAWKINS. BREAD-MACHINE.
101,615,



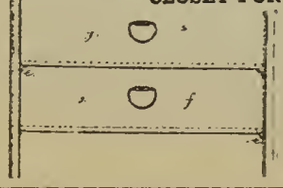
101,616, C. V. HEMENWAY.
BRICK-MACHINES.



101,617. W. M. HENDERSON.
DIRECT ACTING COMPOUND STEAM ENGINE.

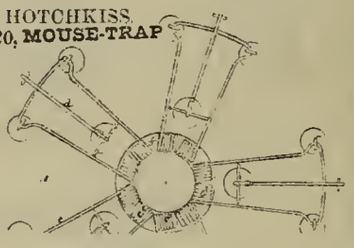


101,618, GEORGE A. HIGGINS
CLOSET FOR CAKE.



GEORGE HORTER.
101,619, HORSE-COLLARS.

A. A. HOTCHKISS.
101,620, MOUSE-TRAP



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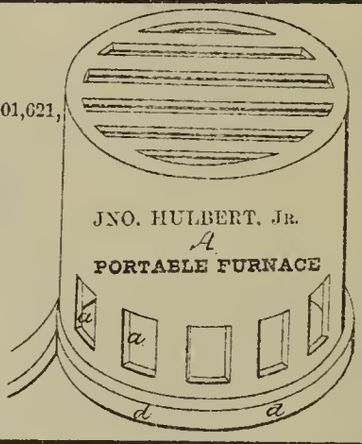
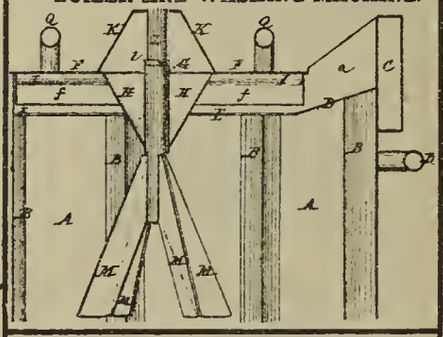
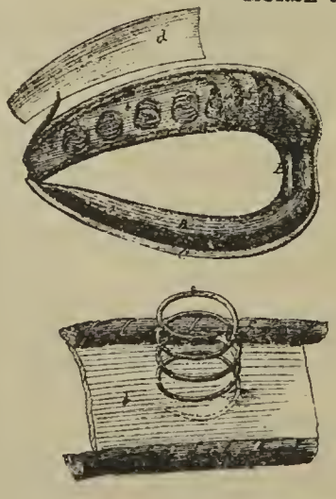


101,622, DANIEL H. HULL.
BOILER AND WASHING-MACHINE.



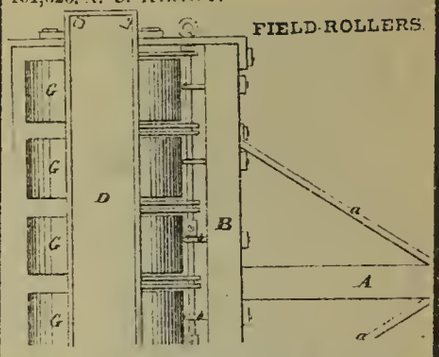
101,623. R. HUMPHREY.
HORSE COLLAR



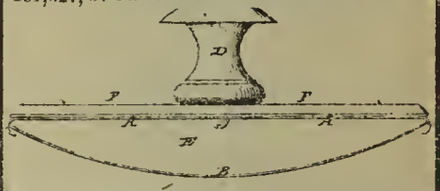
101,624,
OLIVER E. HUNTER.
MANUFACTURE OF STEEL.

101,625, J. J. KARLEN
COMPOSITION FOR THE MANUFACTURE OF FRICTION MATCHES.

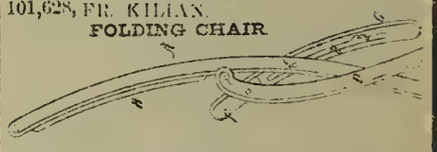
101,626, A. S. KEAGY.
FIELD-ROLLERS.



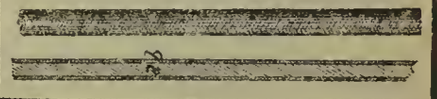
101,627, J. M. KEEP. BLOTTING-PADS.



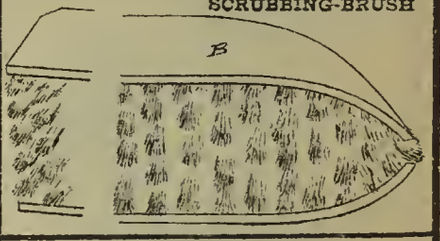
101,628, FR. KILIAN.
FOLDING CHAIR



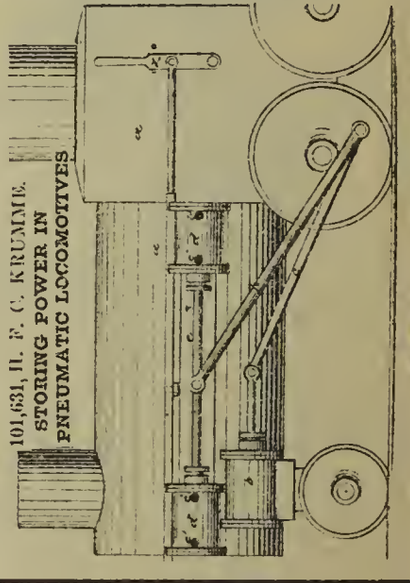
101,629, TOBIAS KOHN.
PICTURE-CORD



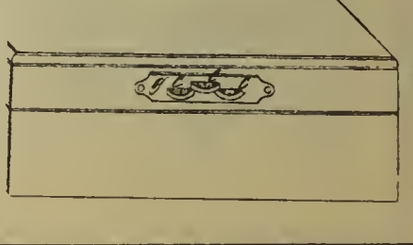
101,650, BENJAMIN F. KOLLER.
SCRUBBING-BRUSH



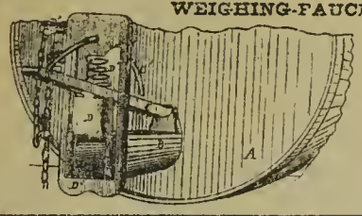
101,631, H. F. C. KRUMME.
STORING POWER IN PNEUMATIC LOCOMOTIVES



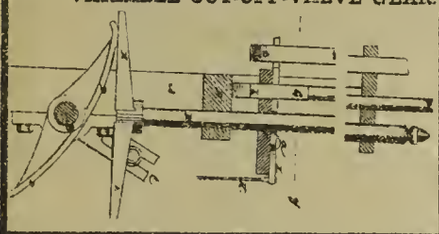
101,632, JOHN H. LARRY.
PERMUTATION LOCK.



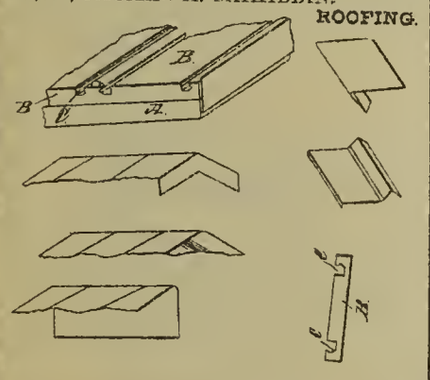
101,633, DANIEL LESH, Jr. WEIGHING-FAUCETS.



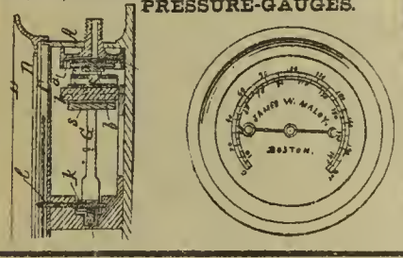
101,634, NATHL. K. LYNCH. VARIABLE CUT-OFF-VALVE GEAR.



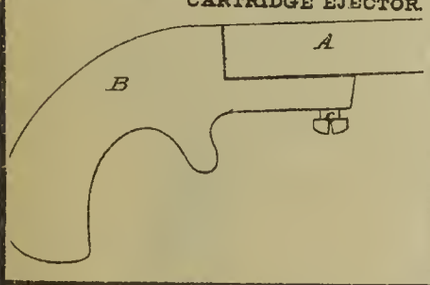
101,635, THOMAS A. MAKIBBIN. ROOFING.



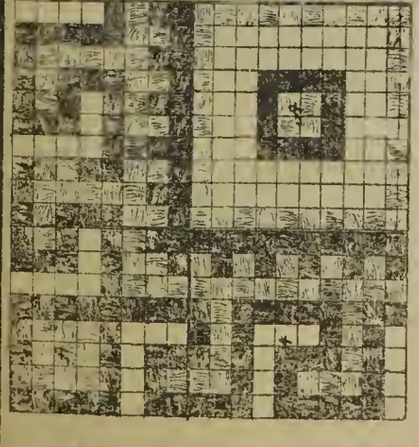
101,636, JAMES W. MALOY. PRESSURE-GAUGES.



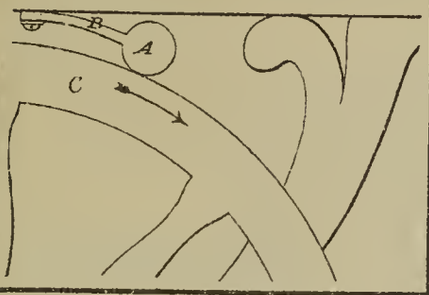
101,637. J. M. MARLIN. CARTRIDGE EJECTOR.



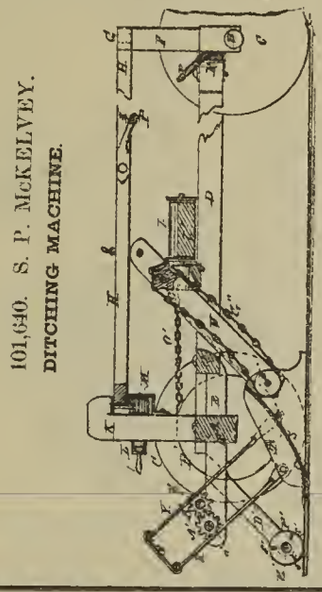
101,638. C. J. McALISTER. FLOORING.



101,639. E. D. McINTOSH. BRAKE TO PREVENT REVERSE MOTION OF DRIVING WHEEL IN SEWING MACHINES.



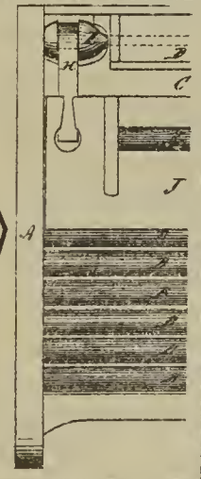
101,640. S. P. McKELVEY. DITCHING MACHINE.



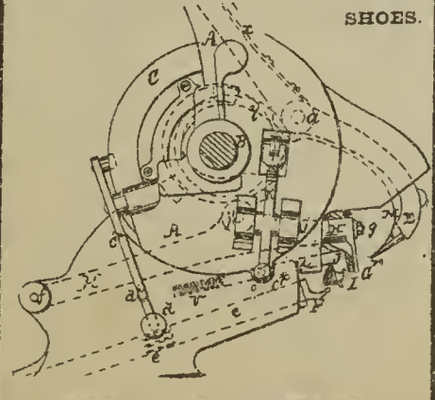
101,641. L. O. P. MEYER. MANUFACTURE OF SAFETY MATCHES

101,642. C. H. MILLER. HAME FASTENER.

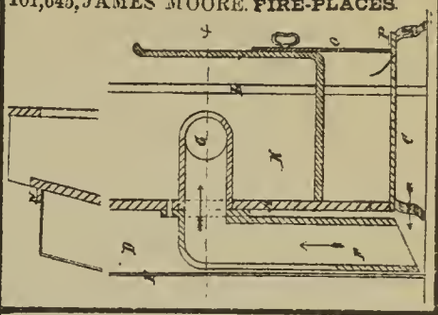
101,643, JOHN MILLER. WASHING-MACHINE



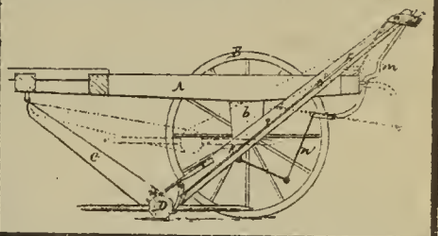
101,644. D. MILLS. SEWING MACHINE FOR BOOTS AND SHOES.



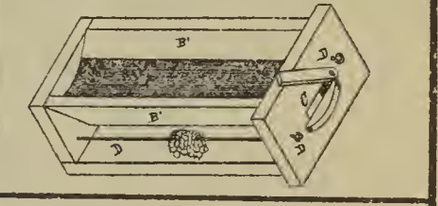
101,645, JAMES MOORE. FIRE-PLACES.



101,646, JOHN H. MORRIS. HORSE HAY-RAKES.

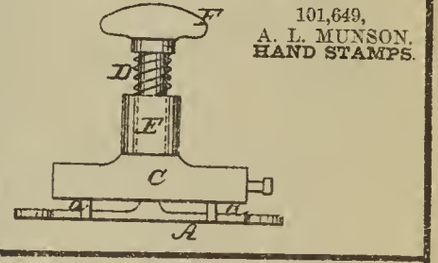


101,647, MARCUS MORTON. BEE-HIVES.

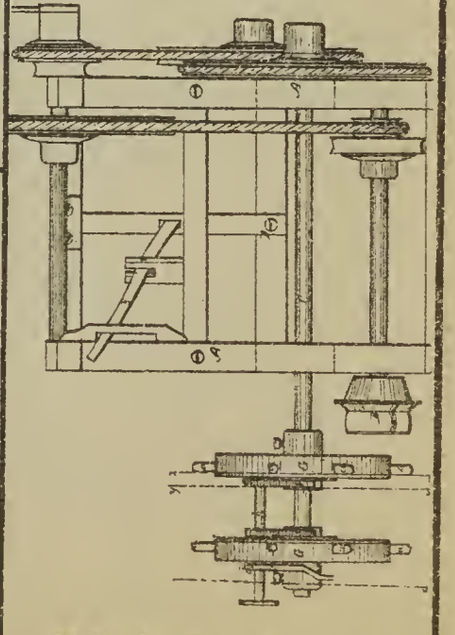


101,648, WM. B. MOSES FURNITURE-PAD.

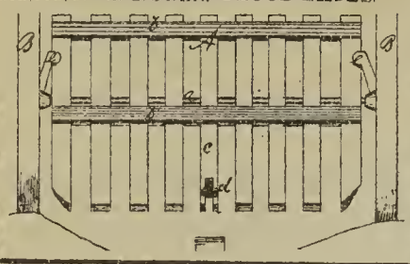
101,649, A. L. MUNSON. HAND STAMPS.



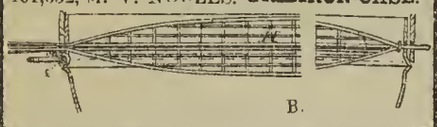
101,650, HIRAM NELSON. FOR CROZING BARRELS.



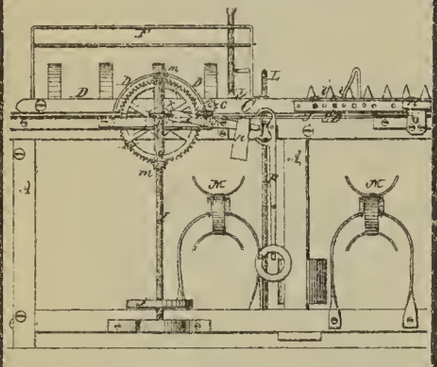
101,651, A. E. NOBLE. FLOOD-GATES.



101,652, M. V. NOBLES. GRIDIRON-CASE.



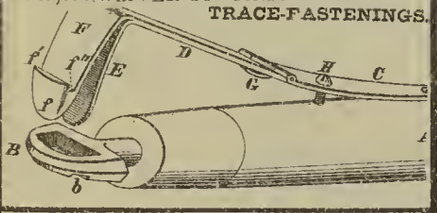
101,653, JOSIAH OOTHOUDT. LATH-MACHINE.



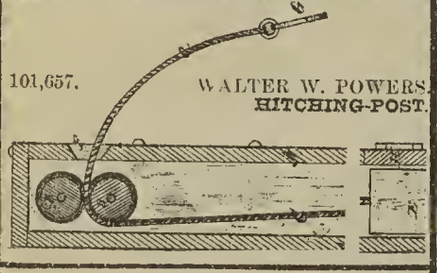
101,654, JOHN FELT OSGOOD. DESULPHURIZING ORES.

101,655, FREDERIC INGERSOLL PALMER. BELT-AWL

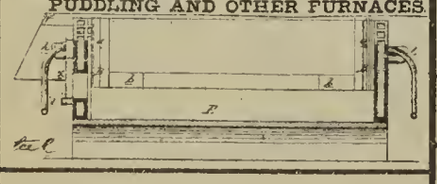
101,656, OLIVER PALMER. TRACE-FASTENINGS.



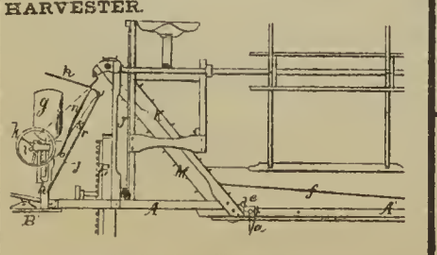
101,657. WALTER W. POWERS. HITCHING-POST.



101,658, THOS. E. PURCHASE. PUDDLING AND OTHER FURNACES.



101,659. E. B. RICE. HARVESTER.



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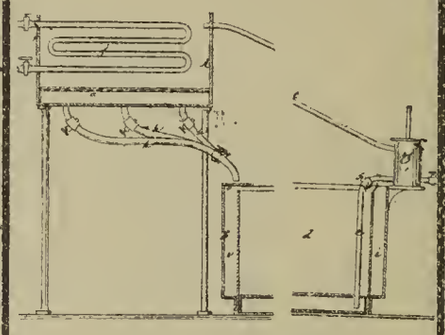
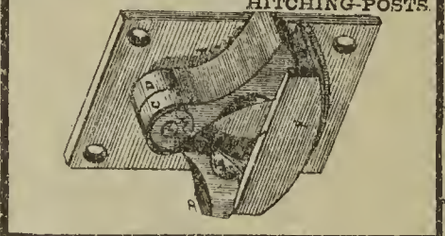
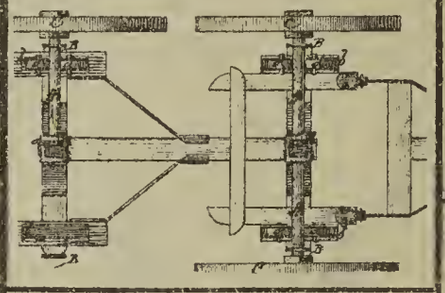
101,661, LOUIS T. ROBERTSON. TANNING BY INFILTRATION.



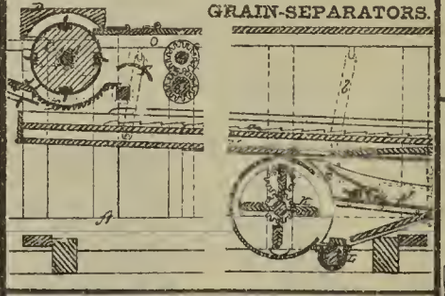
101,662, JOHN S. ROHRER. HITCHING-POSTS.



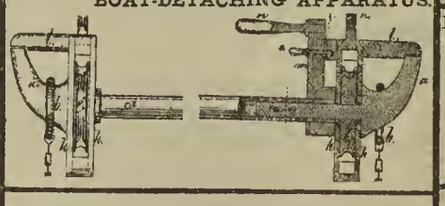
101,663 ELIAS ROWE. VEHICLES.



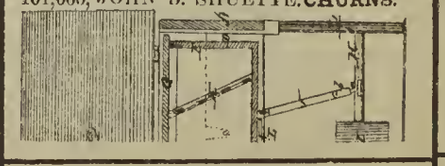
101,664, LEWIS ROYER. GRAIN-SEPARATORS.



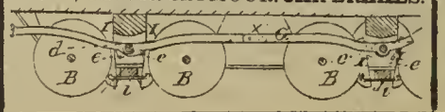
101,665, WM. S. RYERSON. GEO. STANCLIFF. BOAT-DETACHING APPARATUS.



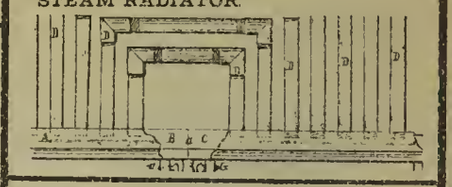
101,666, JOHN B. SHUETTE. CHURNS.



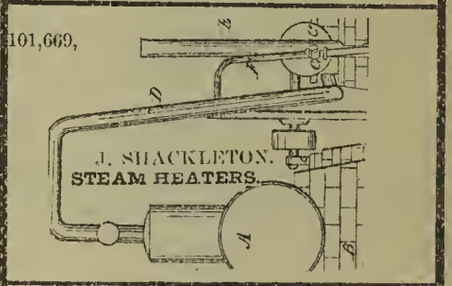
101,667, GEO. H. SEYMOUR. CAR-BRAKES.



101,668, J. SHACKLETON. STEAM RADIATOR.



101,669, J. SHACKLETON. STEAM HEATERS.



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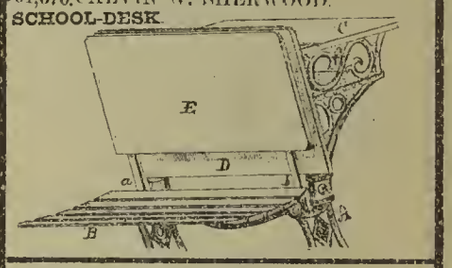

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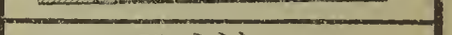
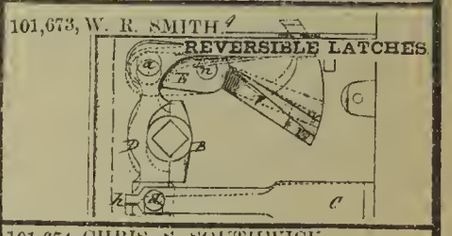


101,672, THOS. SMITH, JR. TEAPOTS.

101,673, W. R. SMITH. REVERSIBLE LATCHES.



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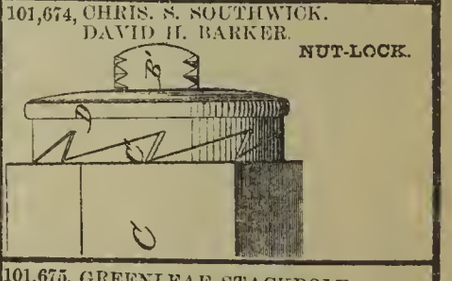

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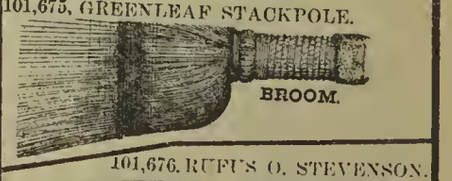
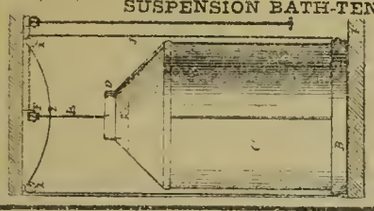


101,676, RUFUS O. STEVENSON. SUMMER COOKING-FURNACE

101,677, G. W. STORY. CARPET-STRETCHER

101,678, H. N. TAFT.
SUSPENSION BATH-TENTS.



101,679, HERMANN TEATS.
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101,681, HAMILTON E. TOWLE.
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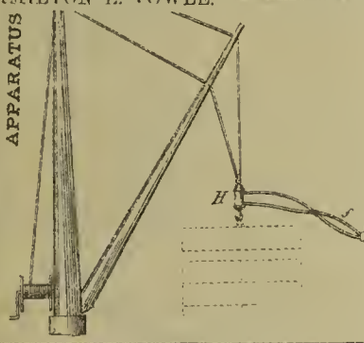

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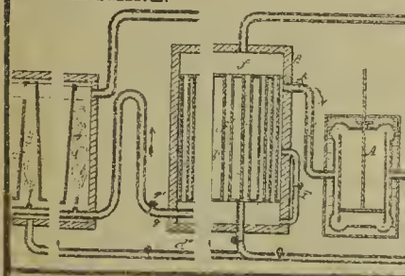

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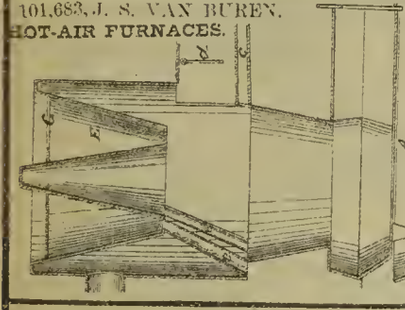

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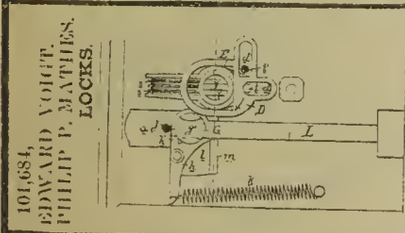

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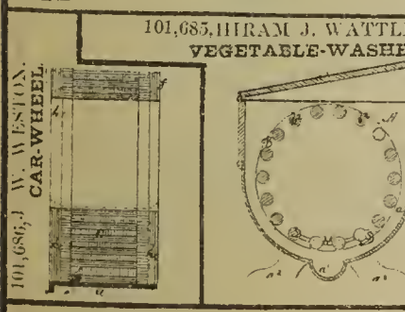

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101,687, CHARLES W. WESTOVER.
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101,688, ALEXANDER WHITE.
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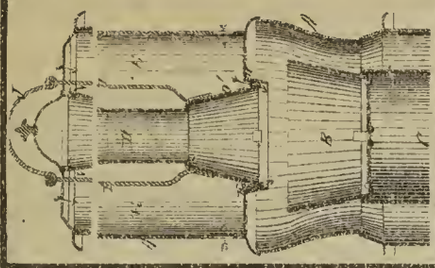

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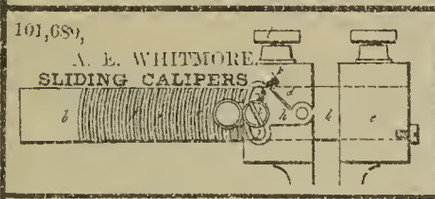
SLIDING CALIPERS.



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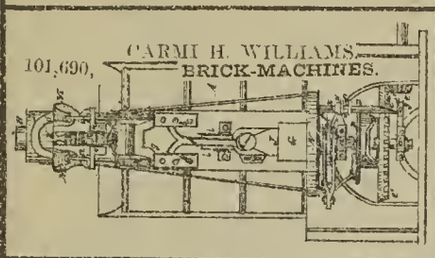

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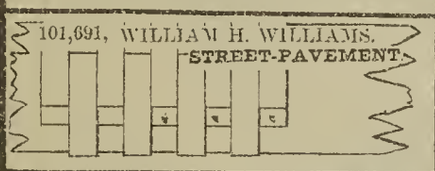

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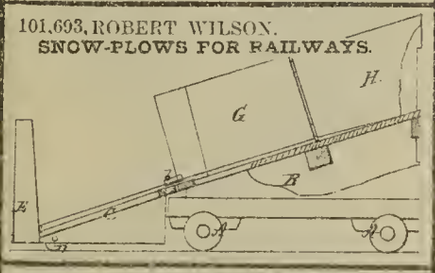
101,693, ROBERT WILSON.
SNOW-PLOWS FOR RAILWAYS.



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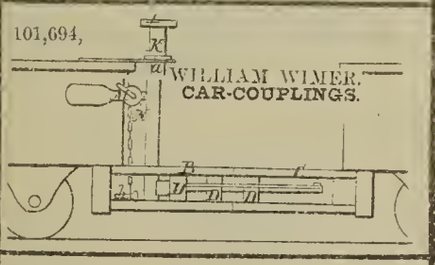

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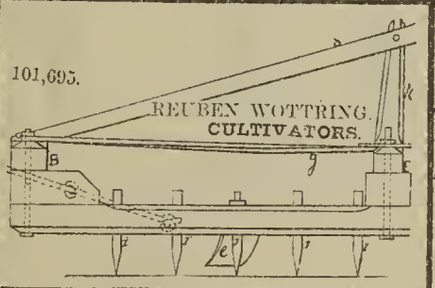

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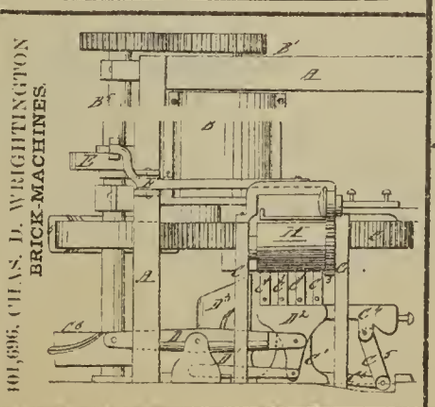

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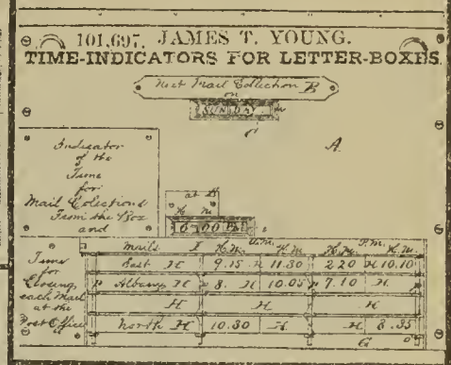

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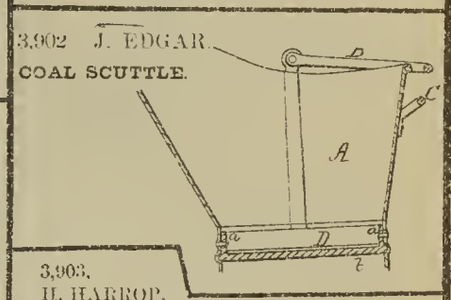

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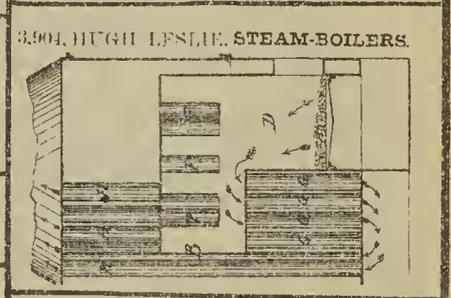
MODE OF ORNAMENTING.

3,904, HUGH LESLIE. STEAM-BOILERS.



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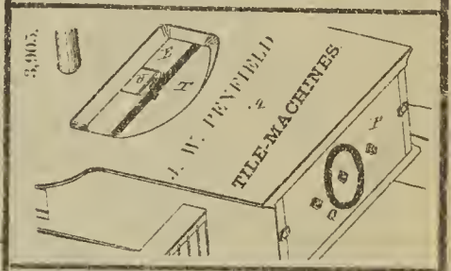
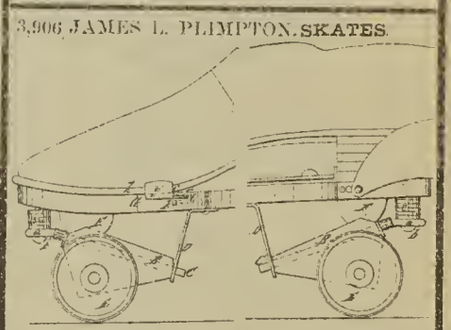


3,906 JAMES L. PLIMPTON. SKATES.



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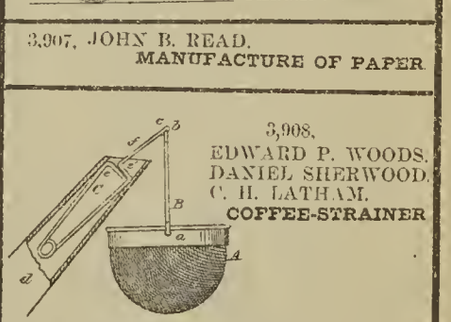

3,908, EDWARD P. WOODS. DANIEL SHERWOOD. C. H. LATHAM.
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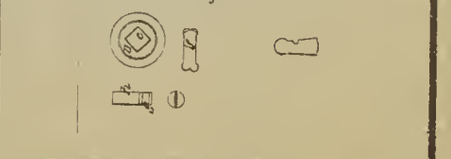
3,909, NORWALK LOCK CO.
E. BEARD, *Secretary.*
REVERSIBLE KNOB-LATCHES.



ILLUSTRATIONS OF PATENTS

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APRIL 12, 1870.

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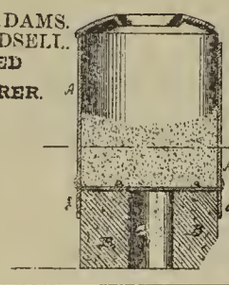
SAMUEL R. GOODSELL.
101,698, IMPROVED
KNIFE-SCOURER.



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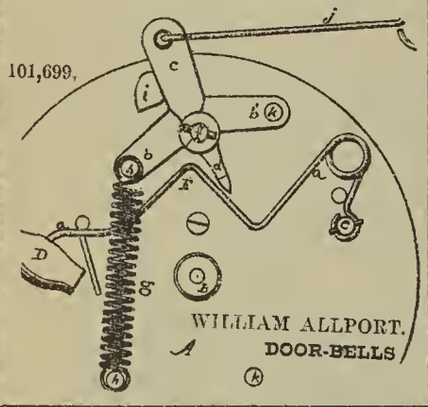

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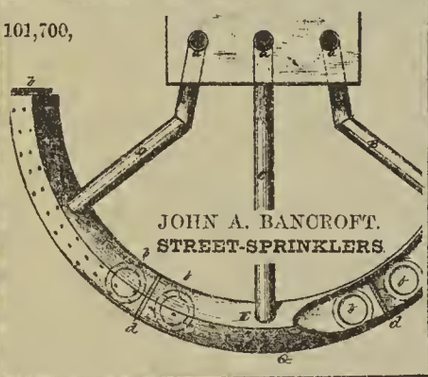
DOOR-BELLS

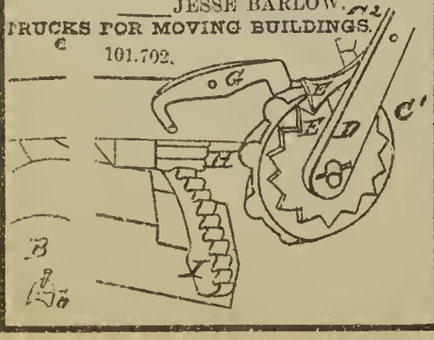
101,700,



JOHN A. BANCROFT.
STREET-SPRINKLERS.

101,701, B. J. BARBER. CUTTER-HEAD
FOR PLANING-MACHINE.

JESSE BARLOW.
TRUCKS FOR MOVING BUILDINGS.
101,702.



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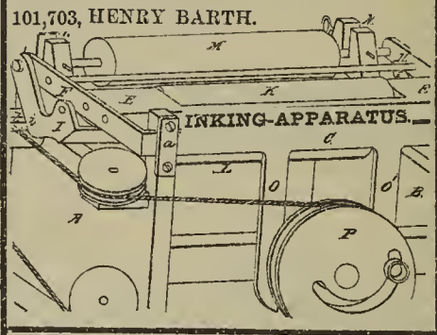

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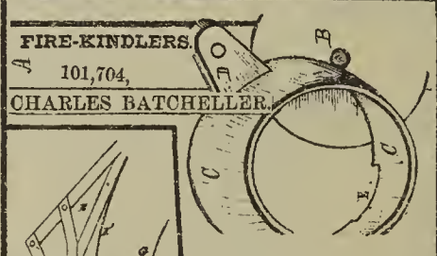
CHARLES BATCHELLER.



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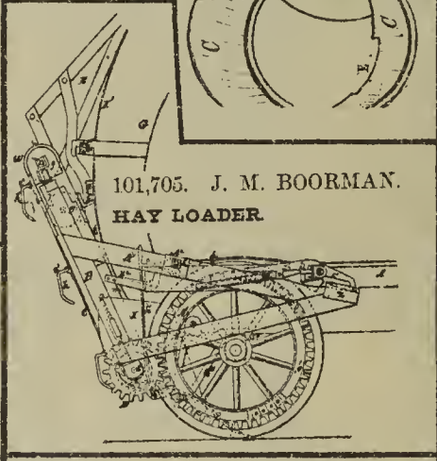

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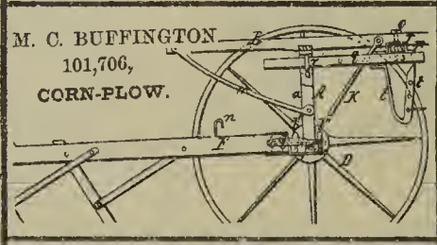

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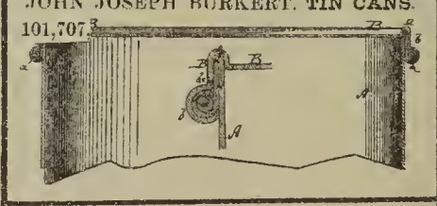

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APPARATUS FOR SEALING
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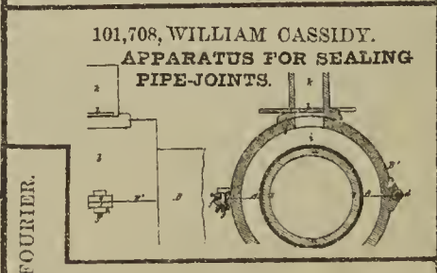

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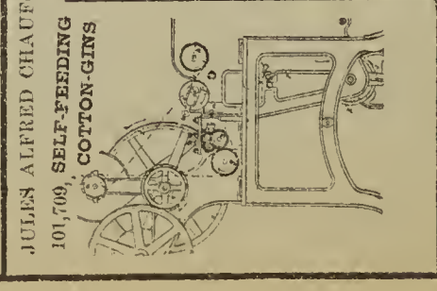

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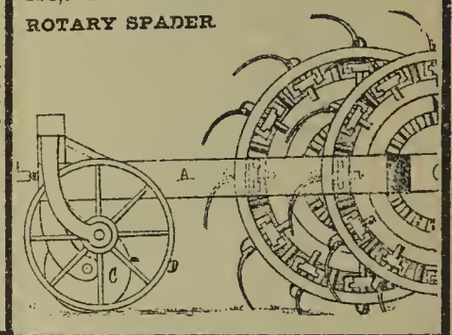

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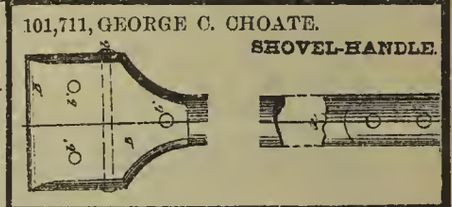

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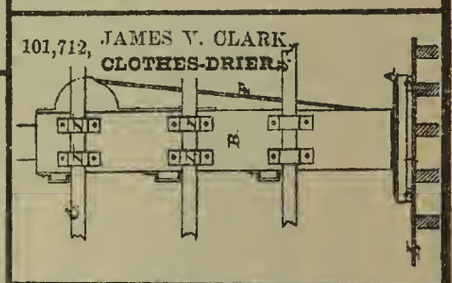

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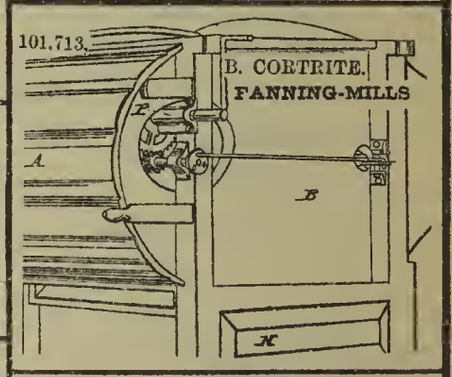

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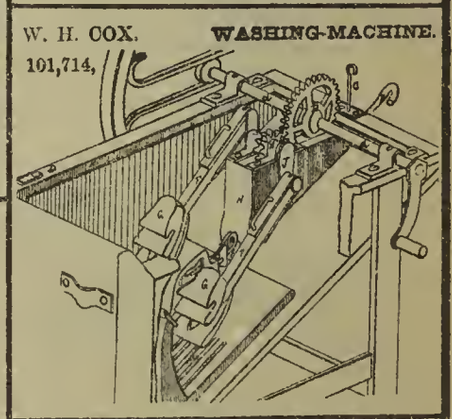

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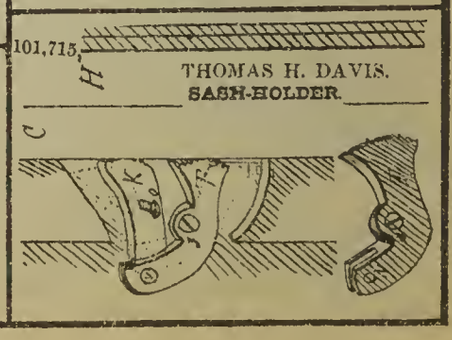

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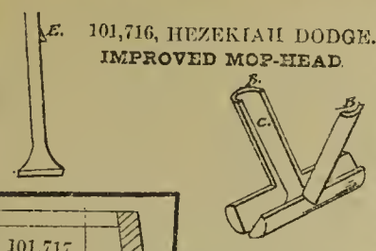

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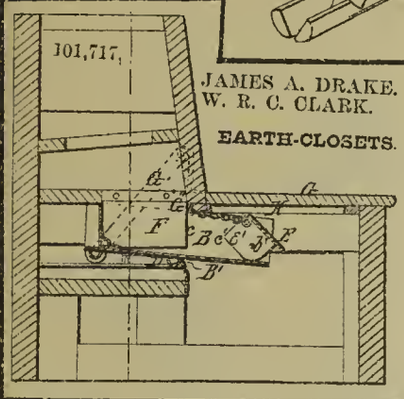
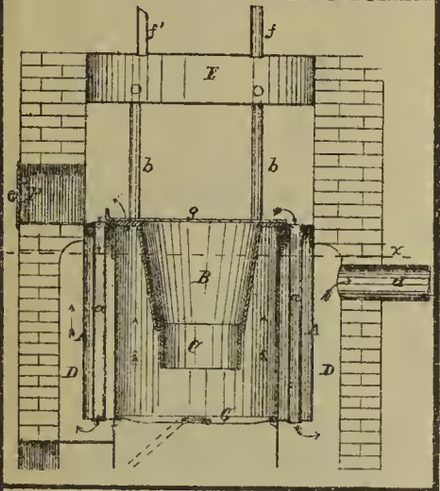
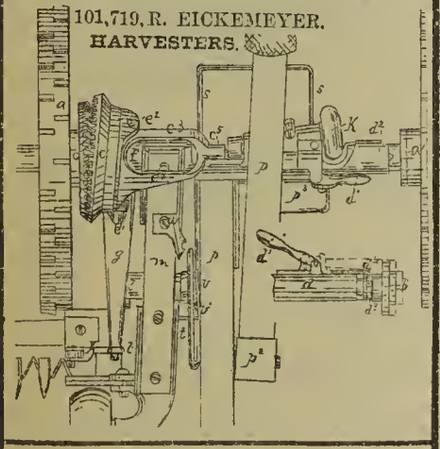
W. R. C. CLARK.
EARTH-CLOSETS.



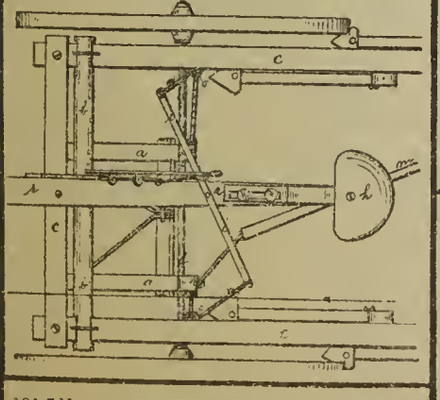
101,718, WM. B. DUNNING.
BASE-BURNING STOVE
FOR A STEAM HEATING BOILER.



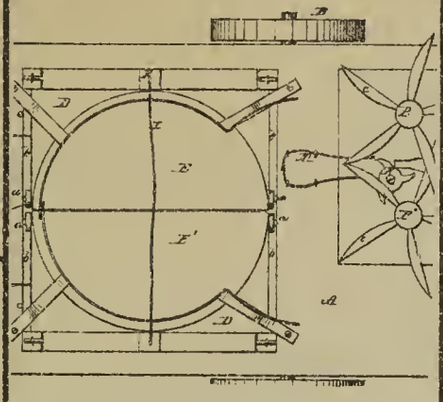
101,719, R. EICKEMEYER.
HARVESTERS.



101,720, FRANK FARNSWORTH.
SULKY CULTIVATORS.

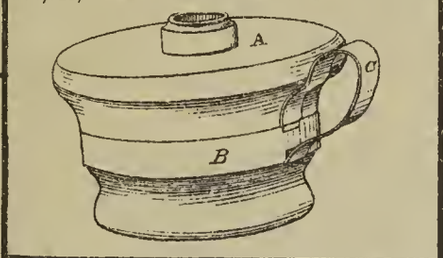


101,721, HENRY FLESHER.
CORN-HARVESTERS.

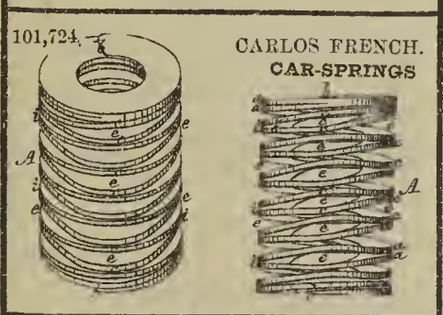


101,722, A. J. FLETCHER.
HAIR MEDICINE.

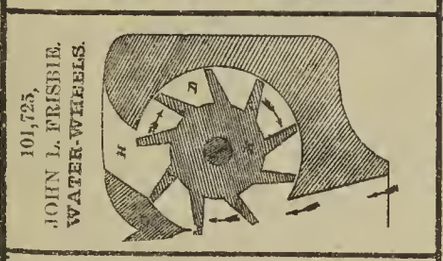
101,723, SAMUEL W. FOWLER. LAMPS.



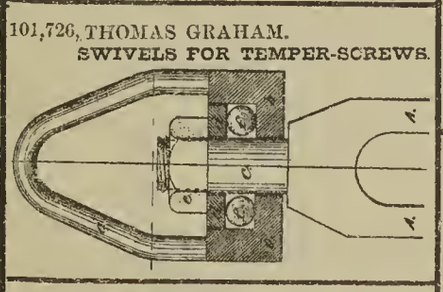
101,724, CARLOS FRENCH.
CAR-SPRINGS



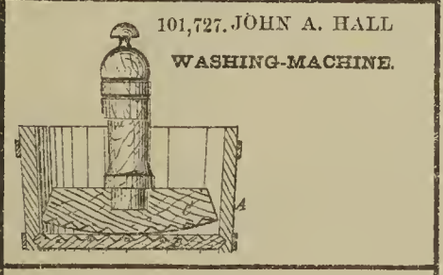
101,725, JOHN L. FRISBIE.
WATER-WHEELS.



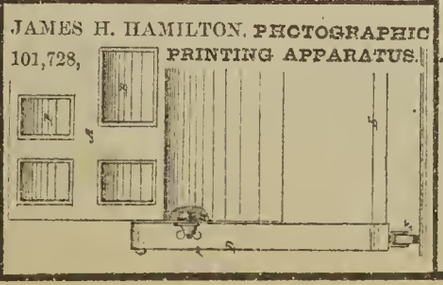
101,726, THOMAS GRAHAM.
SWIVELS FOR TEMPER-SCREWS.



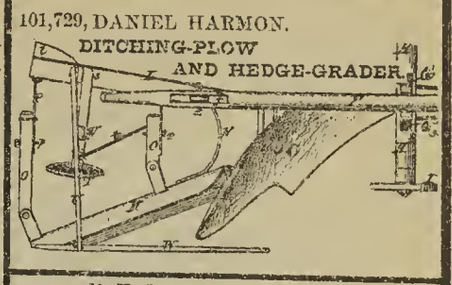
101,727, JOHN A. HALL
WASHING-MACHINE.



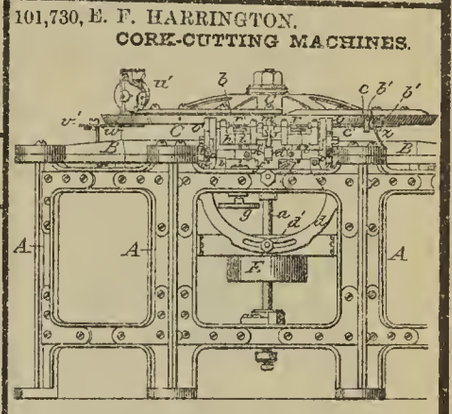
JAMES H. HAMILTON. PHOTOGRAPHIC
101,728, PRINTING APPARATUS.



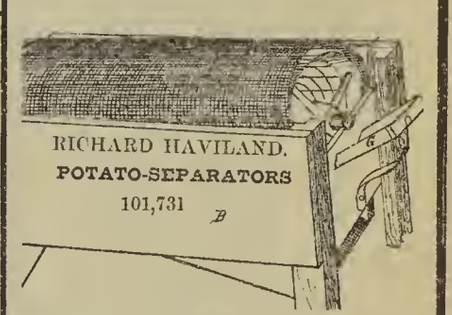
101,729, DANIEL HARMON.
DITCHING-PLOW
AND HEDGE-GRADER.



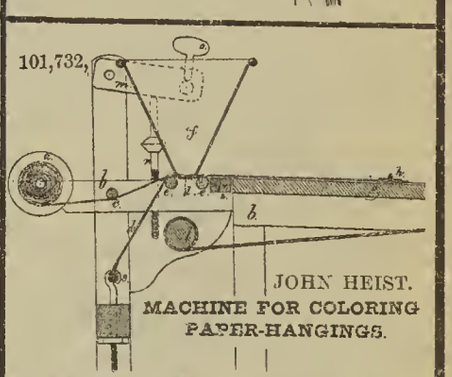
101,730, E. F. HARRINGTON.
CORK-CUTTING MACHINES.



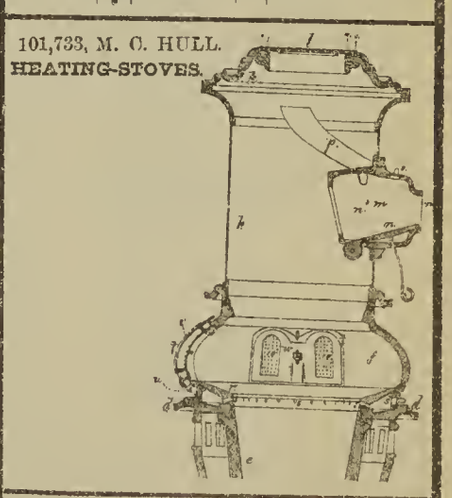
RICHARD HAVILAND.
POTATO-SEPARATORS
101,731



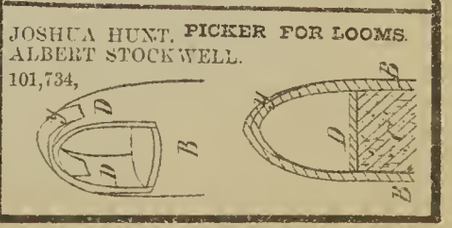
101,732, JOHN HEIST.
MACHINE FOR COLORING
PAPER-HANGINGS.



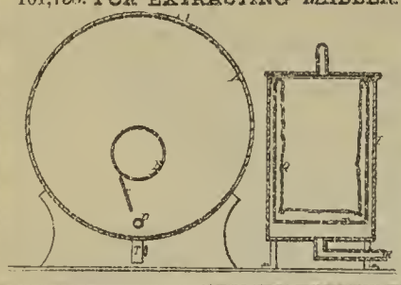
101,733, M. C. HULL.
HEATING-STOVES.



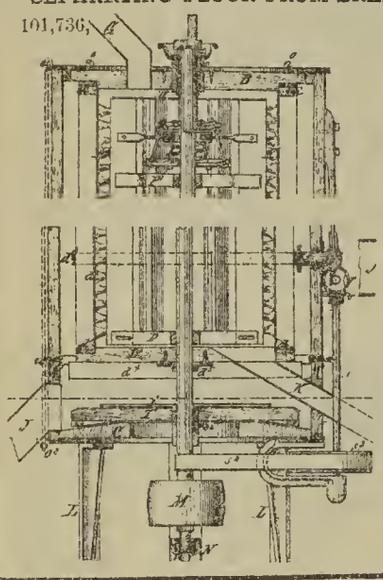
JOSHUA HUNT. PICKER FOR LOOMS.
ALBERT STOCKWELL.
101,734,



JAMES HUNTER. APPARATUS
101,735. FOR EXTRACTING MADDER.

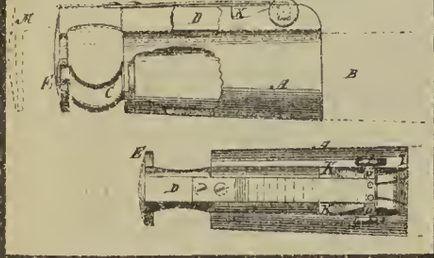


WM. W. HUNTLEY.
ALPHEUS BABCOCK.
IMPROVED MACHINE FOR
SEPARATING FLOUR FROM BRAN.
101,736,

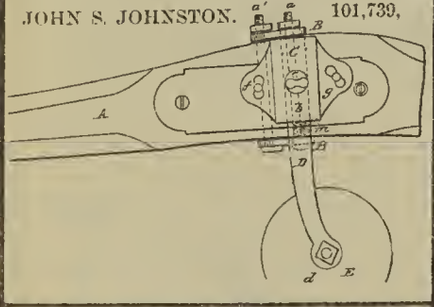


101,737, CHAS. H. JENKINS.
MANUFACTURE OF GLASS.

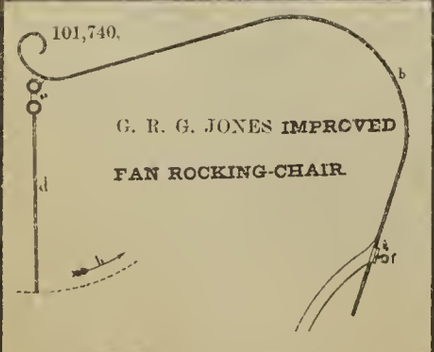
101,738, LEONARD A. JOHNSON.
TUG-FASTENING FOR WHIFFLETREES.



VIBRATING COLTER FOR PLOWS.
JOHN S. JOHNSTON. 101,739,

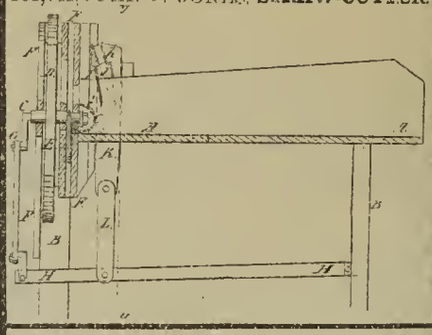


101,740.

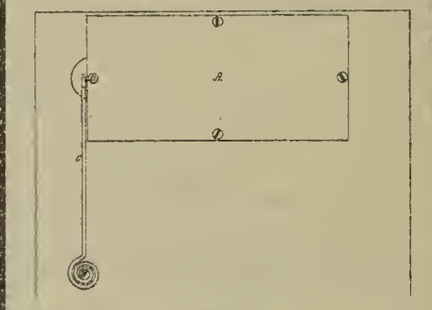


G. R. G. JONES IMPROVED
FAN ROCKING-CHAIR.

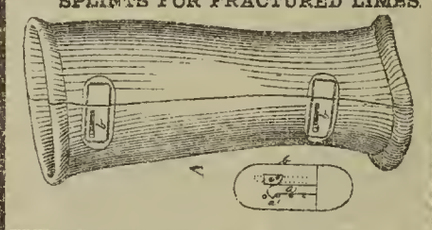
101,741, JOHN S. JONES. STRAW-CUTTER.



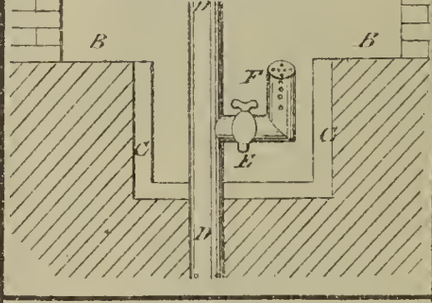
101,742, MICHEAL JAMES KERIGAN.
TREMOLO ATTACHMENT
FOR REED OR PIPE-ORGANS.



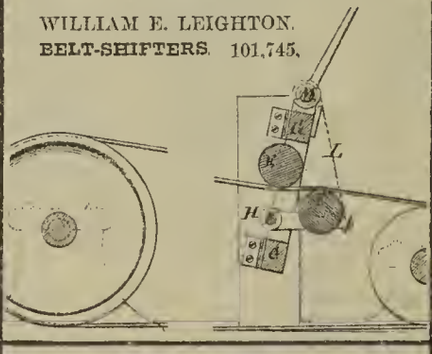
101,743, GEO. S. KING.
SPLINTS FOR FRACTURED LIMBS.



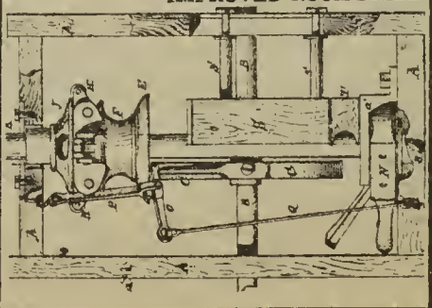
101,744, ADAM KNACKER.
SINK APPARATUS
FOR DRAINING CELLARS.



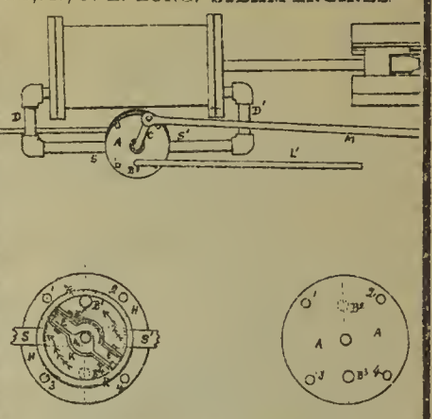
WILLIAM E. LEIGHTON.
BELT-SHIFTERS. 101,745.



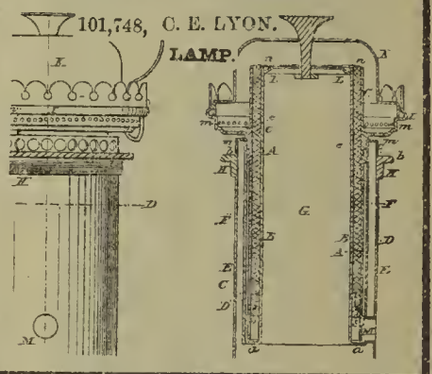
101,746, SAMUEL LEWIS.
IMPROVED ROCK-DRILL.



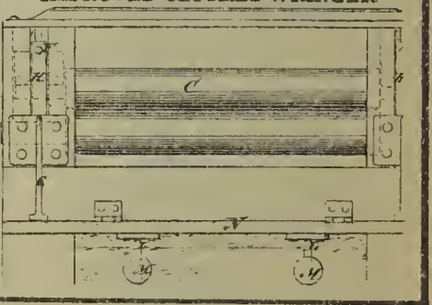
101,747, G. E. LONG. STEAM-ENGINES.



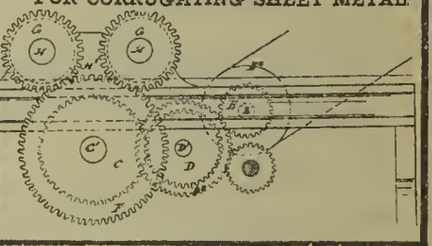
101,748, C. E. LYON.
LAMP.



101,749, ALLEN MAGOWAN.
IMPROVED CLOTHES-WRINGER.

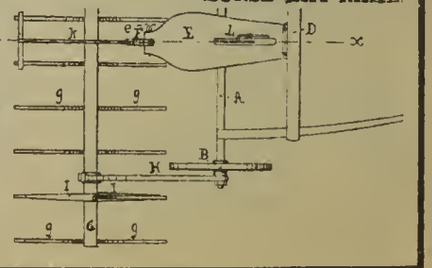


101,750, WILLIAM MANN. MACHINE
FOR CORRUGATING SHEET METAL.

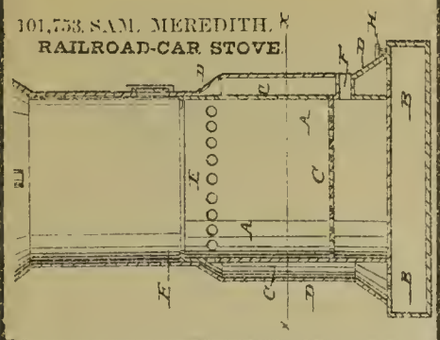


101,751,
EDWARD G. MARKLEY.
RAILWAYS.

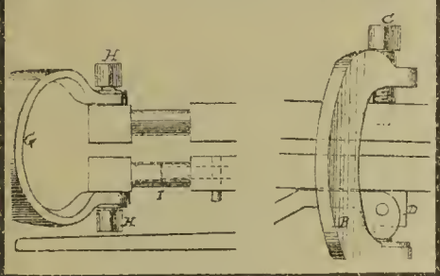
101,752, ROBERT W. McCLELLAND.
HORSE HAY-RAKE.



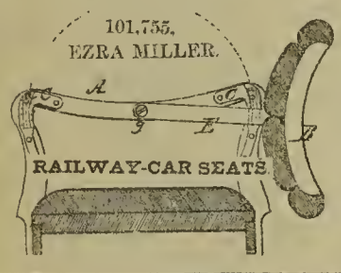
101,753. SAM. MEREDITH.
RAILROAD-CAR STOVE.



101,754, PLATT MERRILL. SAW-CLAMP.

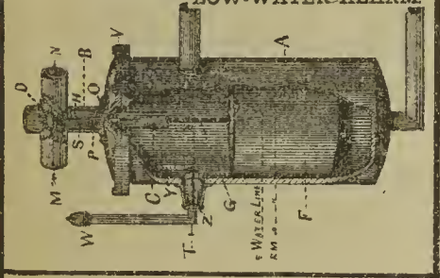


101,755.
EZRA MILLER.

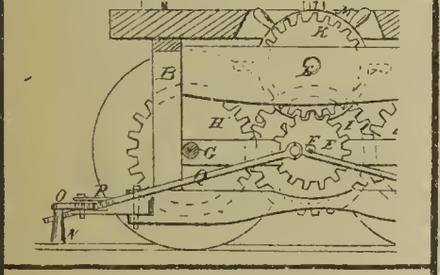


RAILWAY-CAR SEATS.

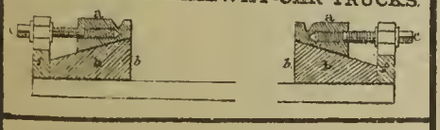
101,756, ALBERT W. MORRELL.
FEED-WATER REGULATOR AND
LOW-WATER ALARM.



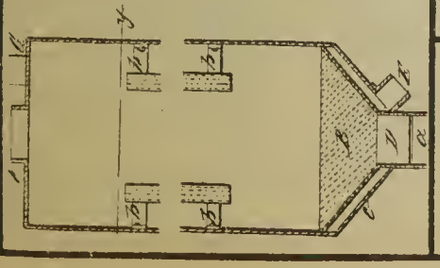
101,757, JAS. A. MORRISON.
TRACK-CLEARER FOR STREET-CARS.



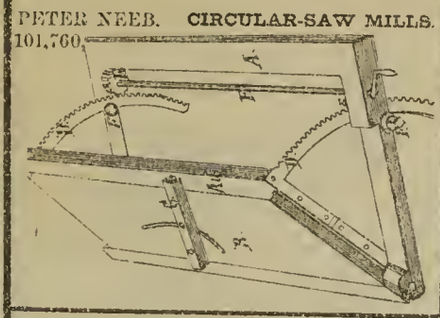
101,758, GEO. F. MORSE.
TABLE FOR CHANGING GAUGE
OF RAILWAY-CAR TRUCKS.



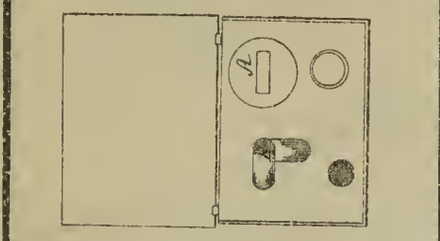
101,759. IRA Y. MUNN. GRAIN-DRIER.



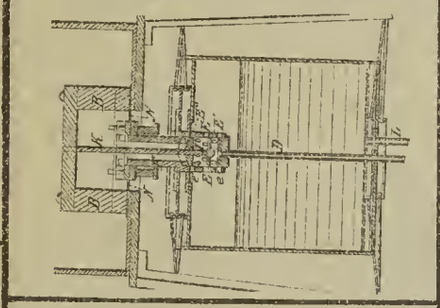
PETER NEEB. CIRCULAR-SAW MILLS.
101,760.



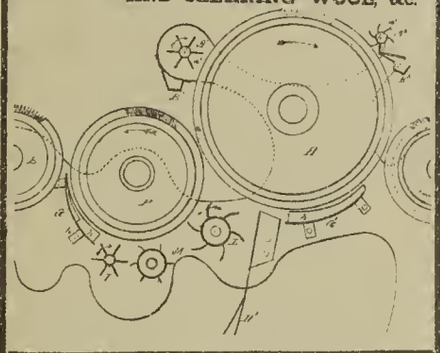
101,761, PERSON NOYES.
TANKS FOR STORING OIL.



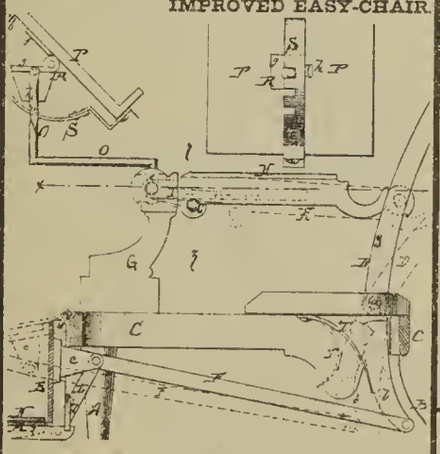
101,762, SAMUEL J. PARKER.
IMPROVED BOILER-FEEDER.



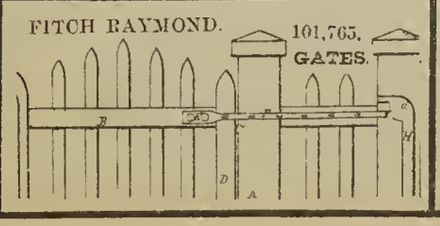
101,763, ZIBA PARKHURST.
MACHINE FOR BURRING
AND CLEANING WOOL, &c.



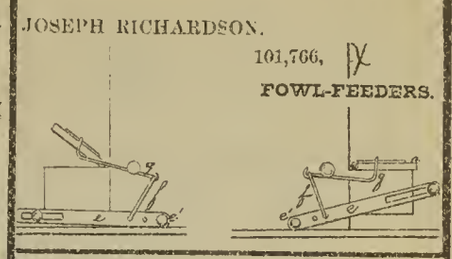
101,764, W C POPPENDIECHE.
IMPROVED EASY-CHAIR.



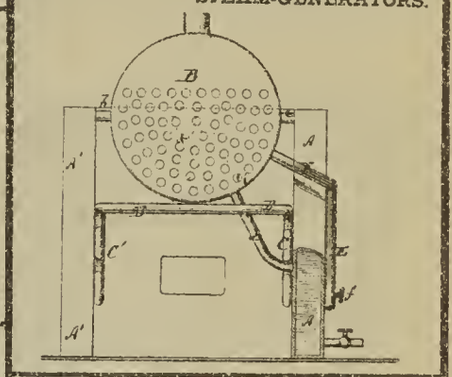
FITCH RAYMOND. 101,765.
GATES.



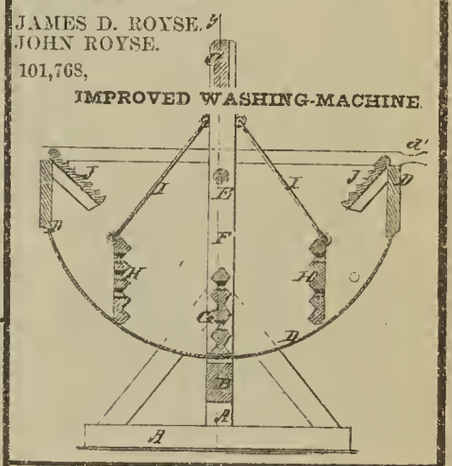
JOSEPH RICHARDSON.
101,766,
FOWL-FEEDERS.



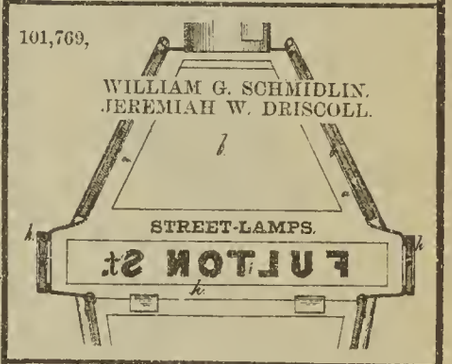
101,767, MICHAEL RITCHEY.
STEAM-GENERATORS.



JAMES D. ROYSE.
JOHN ROYSE.
101,768,
IMPROVED WASHING-MACHINE.

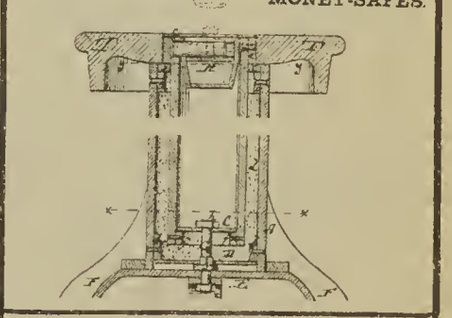


101,769,
WILLIAM G. SCHMIDLIN.
JEREMIAH W. DRISCOLL.

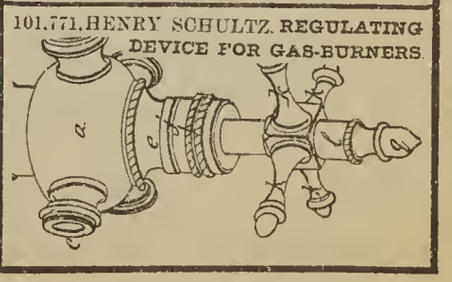


STREET-LAMPS.

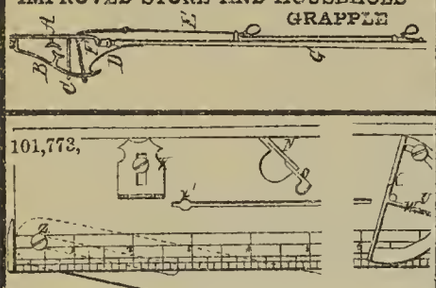
101,770, PHILIPP SCHREYER.
MONEY-SAFES.



101,771. HENRY SCHULTZ. REGULATING
DEVICE FOR GAS-BURNERS.



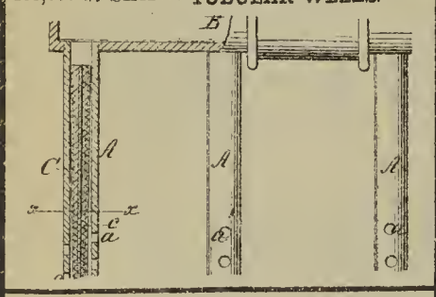
101,772. JOHN SELTZER.
IMPROVED STORE AND HOUSEHOLD GRAPPLE



101,773,

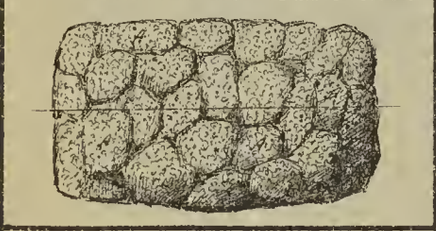
W. A. SHARP. IMPLEMENT.

101,774 J. SHAW. TUBULAR WELLS.

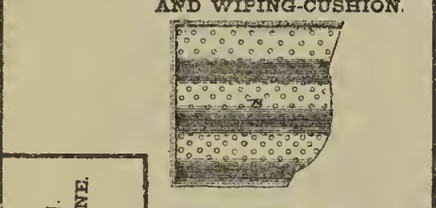


101,775. GEO. SHOVE. ROOFING-TILES.

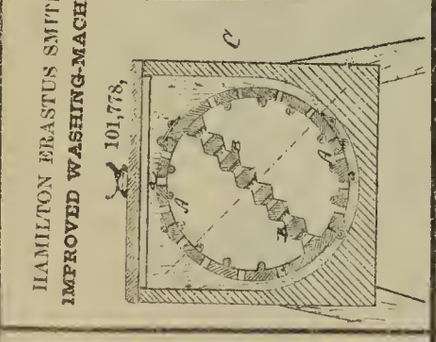
101,776 HAMILTON ERASTUS SMITH.
IMPROVED MULTIPLE SPONGE.



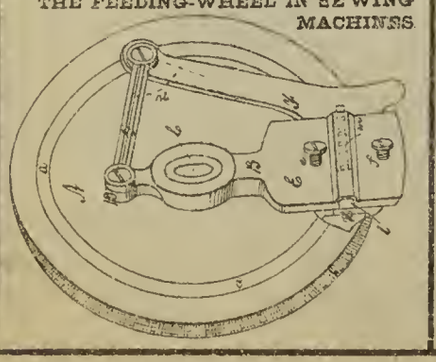
101,777, HAMILTON ERASTUS SMITH.
IMPROVED MOP, MAT, AND WIPING-CUSHION.



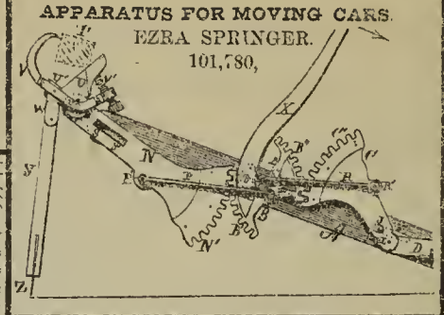
HAMILTON ERASTUS SMITH.
IMPROVED WASHING-MACHINE.
101,778,



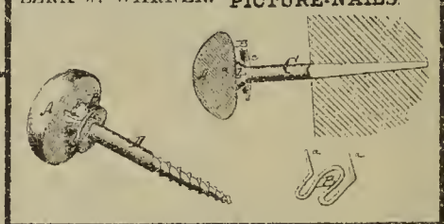
101,779, FRIEDRICH SPOEHR.
MECHANISM FOR OPERATING THE FEEDING-WHEEL IN SEWING MACHINES.



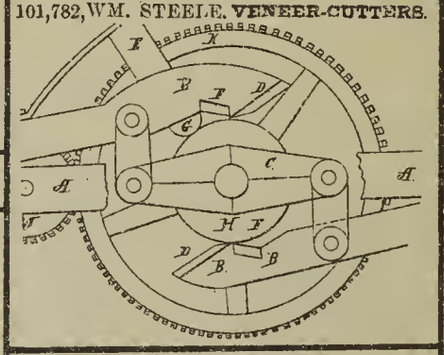
APPARATUS FOR MOVING CARS.
EZRA SPRINGER.
101,780,



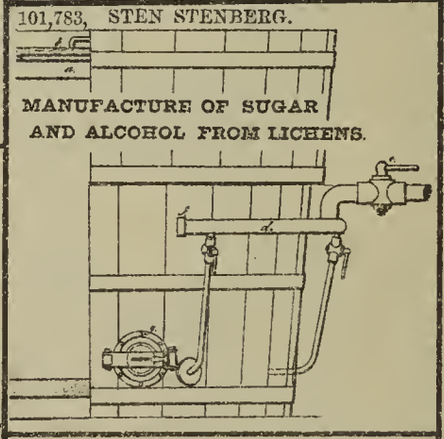
JOHN H. SQUIER. 101,781,
EZRA J. WARNER. PICTURE-NAILS.



101,782, WM. STEELE. VENEER-CUTTERS.

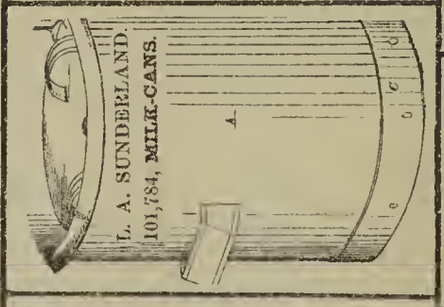


101,783, STEN STENBERG.

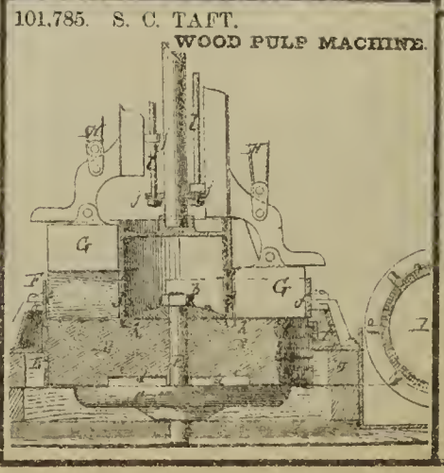


MANUFACTURE OF SUGAR AND ALCOHOL FROM LICHENS.

L. A. SUNDERLAND.
101,784, MILK-CANS.



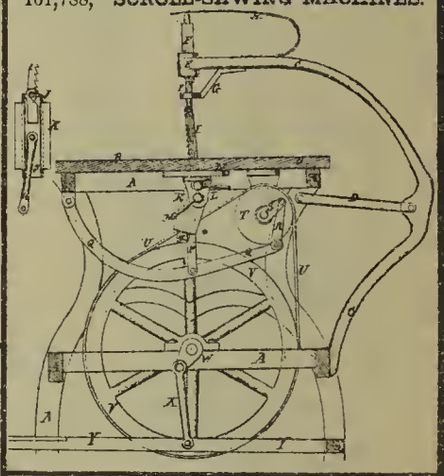
101,785. S. C. TAFT.
WOOD PULP MACHINE.



101,786, GEORGE F. THOMAE, JR.
PAPER FOR CHECKS, DRAFTS, NOTES, &c.

101,787, WM. M. K. THORNTON.
DUST-ARRESTER FOR RAILROAD-CARS.

ELIPHALET A. TRIPP.
101,788, SCROLL-SAWING MACHINES.



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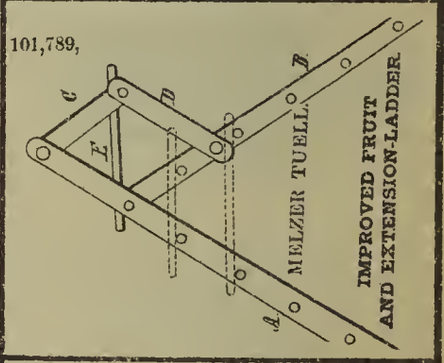
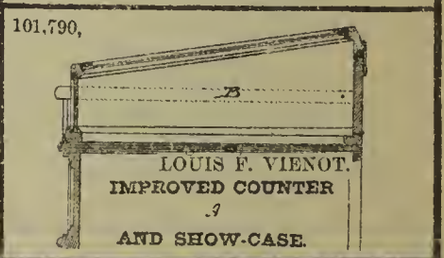


MELZER TUBELL.
IMPROVED FRUIT AND EXTENSION-LADDER.

101,790,

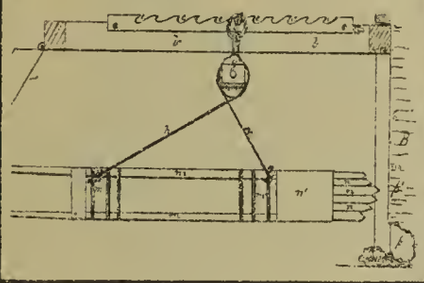


LOUIS F. VIENOT.
IMPROVED COUNTER AND SHOW-CASE.

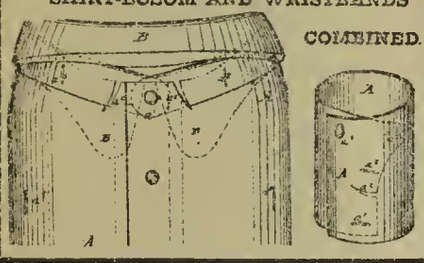
EDWARD P. VINING. 101,791,
RAILWAY-CAR BRAKES.

101,792. E. A. WALKER.
PISTON PACKING.

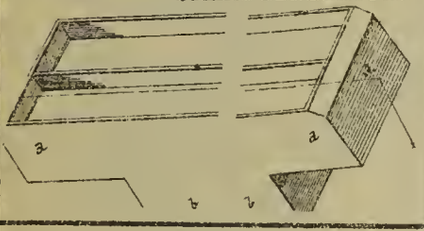
101,793, WM. WARD.
COAL-DIGGING APPARATUS.



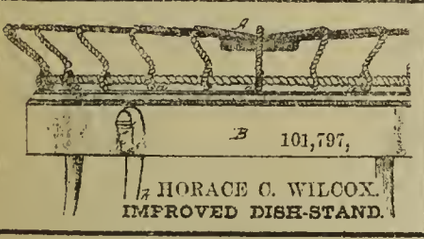
101,794, EFFINGHAM H. N. WARNER.
SHIRT-BOSOM AND WRISTBANDS COMBINED.



101,795, MARSHALL D. WELLMAN.
GRATE-BARS FOR STEAM-GENERATORS.

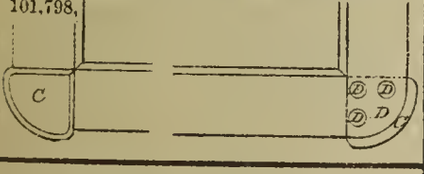


101,796, ASA WHEELER.
IMPROVED COUNTERSINK.

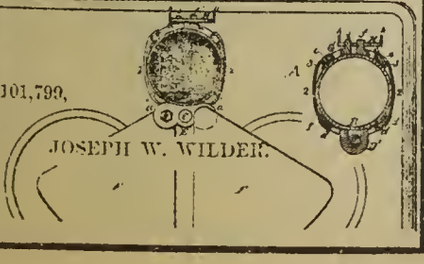


101,797,
HORACE C. WILCOX.
IMPROVED DISH-STAND.

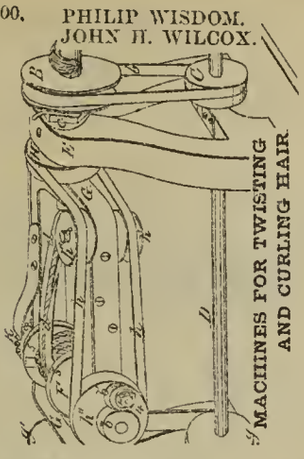
WILLIAM A. WILDE. SLATE-FRAMES.
101,798,



IMPROVED STOVE-PIPE SHELF.
101,799,
JOSEPH W. WILDER.

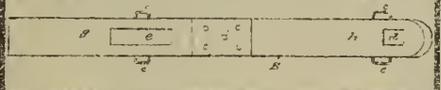


101,800. PHILIP WISDOM.
JOHN H. WILCOX.
MACHINES FOR TWISTING AND CURLING HAIR.

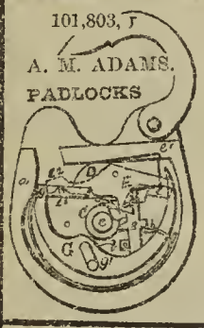


101,801, CHAS. B. WITHINGTON.
GRAIN-BINDERS.
Suspended.

101,802, WILHELMINA JULIANNA ZAKRZEWSKA.
IMPROVED ROCKER FOR CHAIRS.

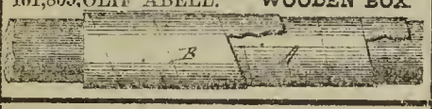


101,803,
A. M. ADAMS.
PADLOCKS

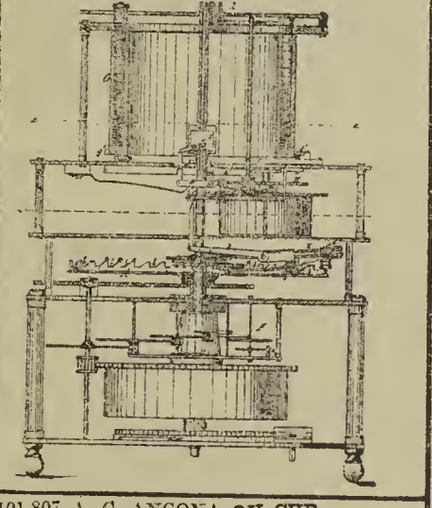


101,804, OLIF ABELL.
IMPROVED WOODEN BOX.

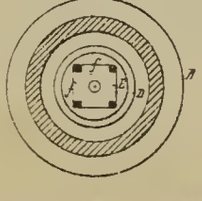
101,805, OLIF ABELL. WOODEN BOX.



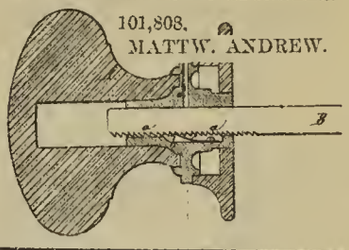
APPARATUS FOR LIGHTING
101,806, AND EXTINGUISHING GAS.
ALMON N. ALLEN.
RODNEY H. DEWEY.



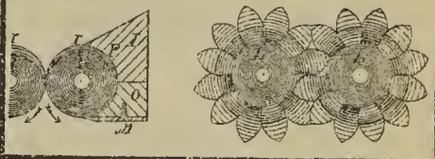
101,807. A. C. ANCONA. OIL-CUP.



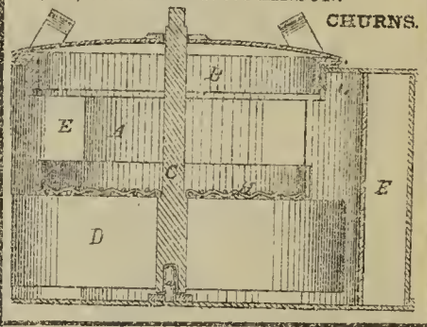
ATTACHING KNOBS TO SPINDLES.
101,808.
MATTW. ANDREW.



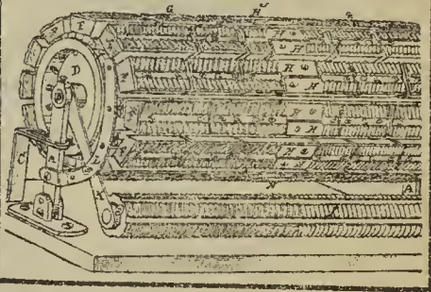
101,809, L. AUGS. ASPINWALL.
CORN-HUSKERS.



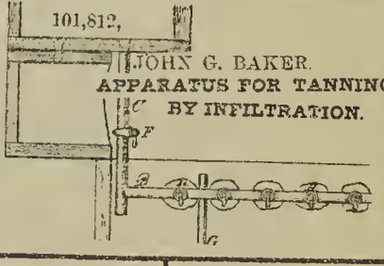
101,810, MAHLON B. ATKINSON.
CHURNS.



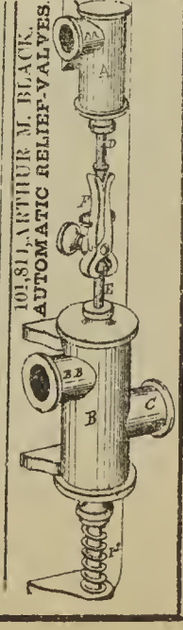
101,811, SOLOMON H. AUSTIN.
CLOTH-STRETCHING MACHINES.



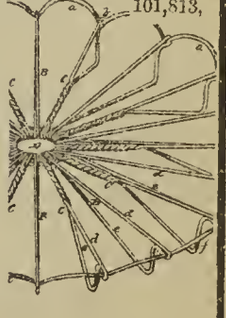
101,812,
JOHN G. BAKER.
APPARATUS FOR TANNING BY INFILTRATION.



101,813, ARTHUR M. BLACK.
AUTOMATIC RELIEF-VALVES.

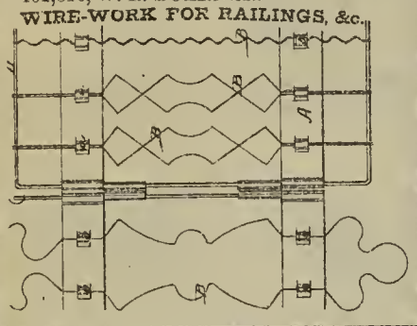


JONAH H. BIGELOW.
IMPROVED STAND FOR TEA AND COFFEE-POTS.
101,813,

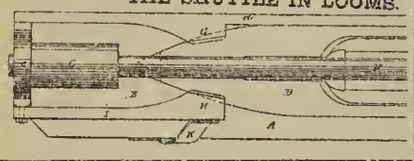


101,815, G. H. BLAKESLEY.
TUBULAR SHAFTS FOR CLOCKS.

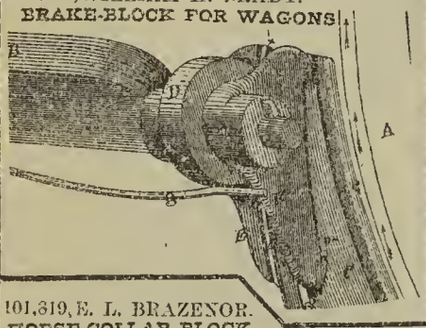
101,816, W. R. BOERNER.
WIRE-WORK FOR RAILINGS, &c.



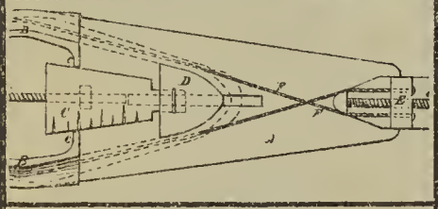
101,817, SAMUEL BOORN.
MECHANISM FOR STOPPING THE SHUTTLE IN LOOMS.



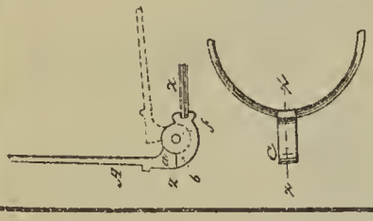
101,818, WILLIAM H. BRADT.
BRAKE-BLOCK FOR WAGONS.



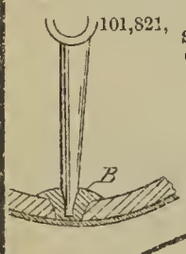
101,819, E. L. BRAZENOR.
HORSE-COLLAR BLOCK.



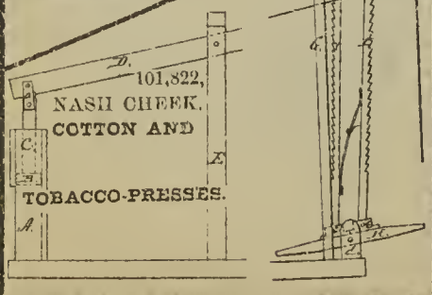
101,820. CHAUNCEY BUCKLEY.
SPECTACLE-FRAMES.



101,821, A. J. CARLETON.
SPOKE-SOCKET FOR CARRIAGE WHEELS.

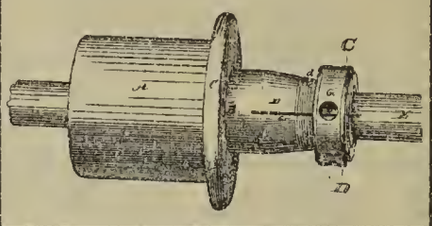


101,822, NASH CHEEK.
COTTON AND TOBACCO-PRESSES.

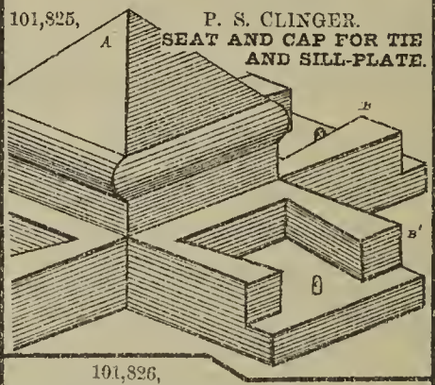


101,823, JOHN H. CHEEVER.
INDIA-RUBBER CARPETING AND EMBOSSED MATTING.

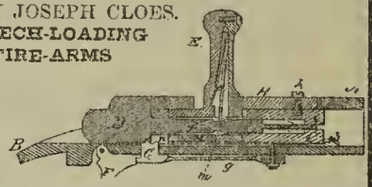
101,824, MILTON W. CLARK.
COMBINED PULLEY AND CLAMP.



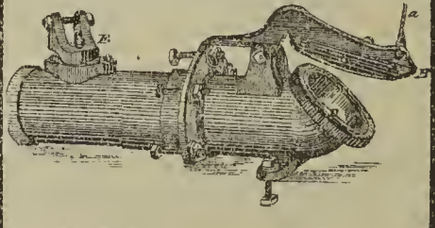
101,825, P. S. CLINGER.
SEAT AND CAP FOR TIE AND SILL-PLATE.



101,826, JOHN JOSEPH CLOES.
BREECH-LOADING FIRE-ARMS

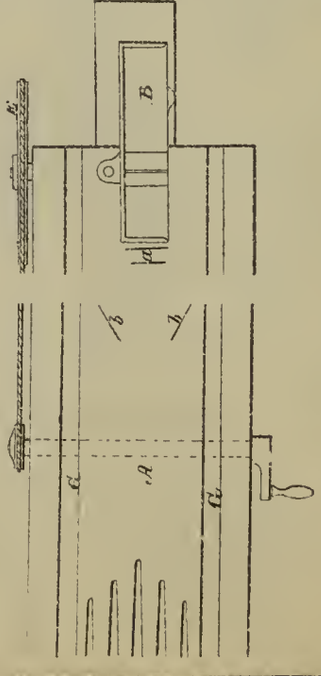


101,827, MARSHALL COWING.
RAILROAD-TANK VALVES.

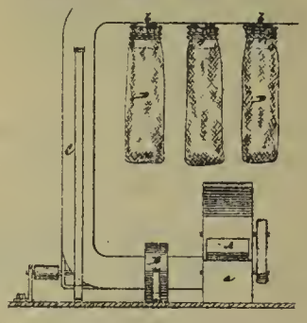


JAMES F. CRANSTON.
JEREMIAH H. BANKS.
101,828, JOHN M. INGERSOLL.
MANUFACTURE OF ARTIFICIAL FUEL

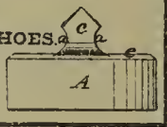
101,829. C. O. CROSBY.
MACHINE FOR ARRANGING NEEDLES.



101,830. S. CRUMP.
BRONZE COLLECTING ATTACHMENT TO BRONZING MACHINES.

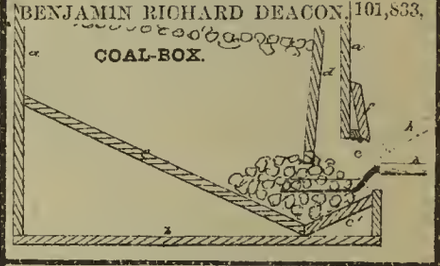


101,831, GEO. CUSTER.
TOE-CALK FOR HORSESHOES.

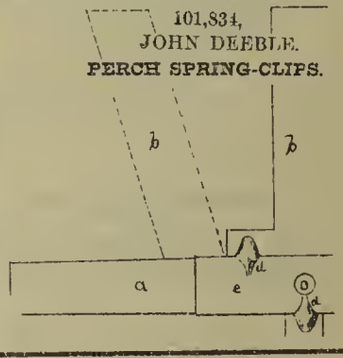


101,832, H. CHWATAL.
PRESSURE-GAUGES.

BENJAMIN RICHARD DEACON, 101,833,
COAL-BOX.

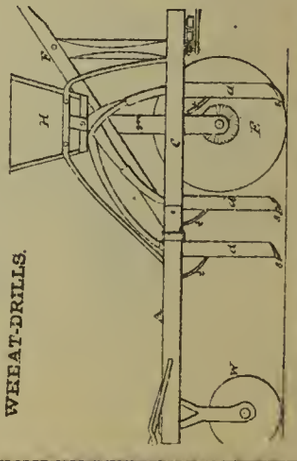


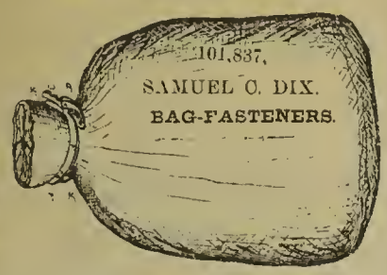
101,834, JOHN DEEBLE.
PERCH SPRING-CLIPS.



101,835, CHAS. DIEBOLD. MANUFACTURE OF BUILDING-BLOCKS FROM SLAG.

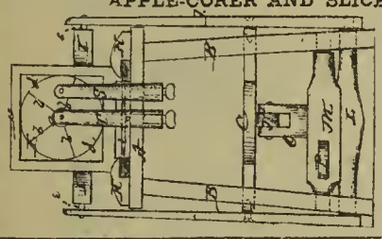
101,836, JOSEPH DILLIER.
WHEAT-DRILLS.



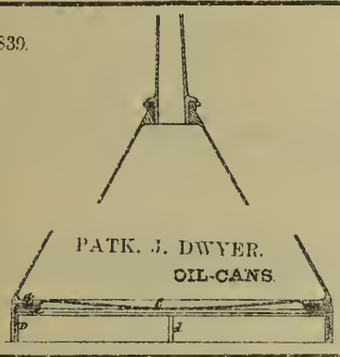


101,837, SAMUEL O. DIX. BAG-FASTENERS.

101,838, R. J. DODD. APPLE-CORER AND SLICER.

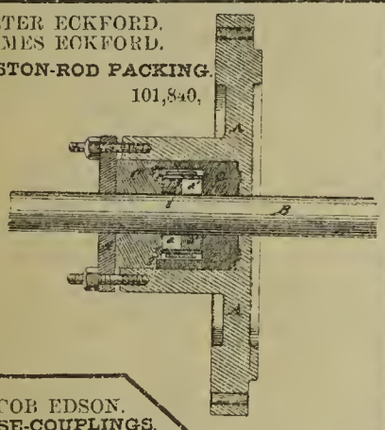


101,839.

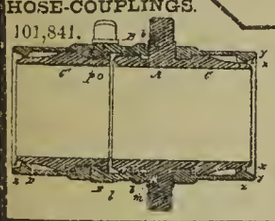


PATK. J. DWYER. OIL-CANS.

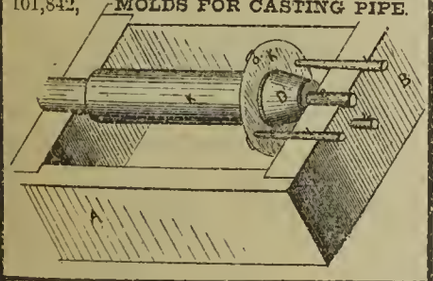
PETER ECKFORD. JAMES ECKFORD. PISTON-ROD PACKING. 101,840.



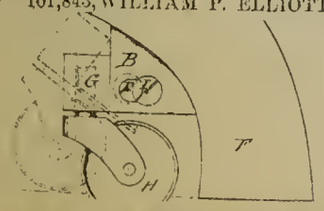
JACOB EDSON. HOSE-COUPLINGS. 101,841.



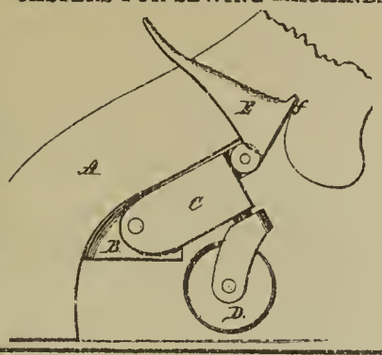
JACOB EDSON 101,842, MOLDS FOR CASTING PIPE.



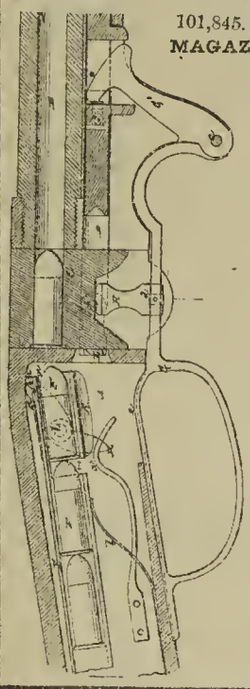
CASTERS FOR SEWING-MACHINES. 101,843, WILLIAM P. ELLIOTT.



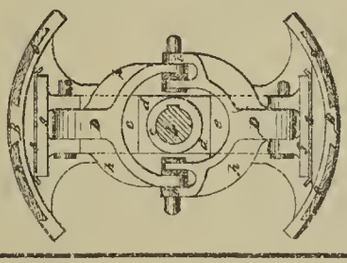
101,844, WILLIAM P. ELLIOTT. CASTERS FOR SEWING-MACHINES.



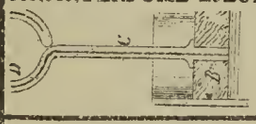
101,845, DARWIN ELLIS. MAGAZINE FIRE-ARMS.



101,846, GEO. D. EMERSON. FRICTION-CLUTCH FOR ENGAGING AND DISENGAGING GEARING.



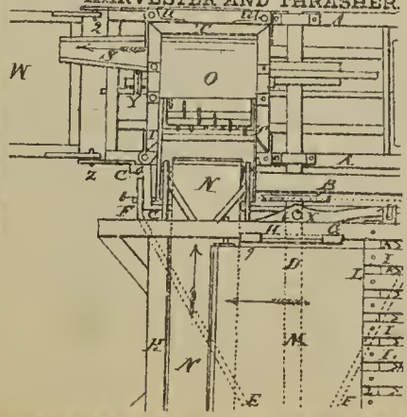
CHRISTIAN L. FEHRENSEN. 101,848, PERFUME EJECTOR.



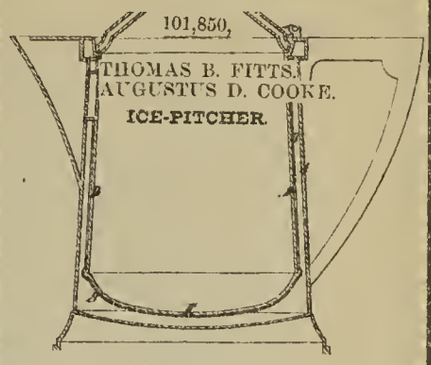
101,847.

HORACE EVERETT. SHEET-METAL CANS.

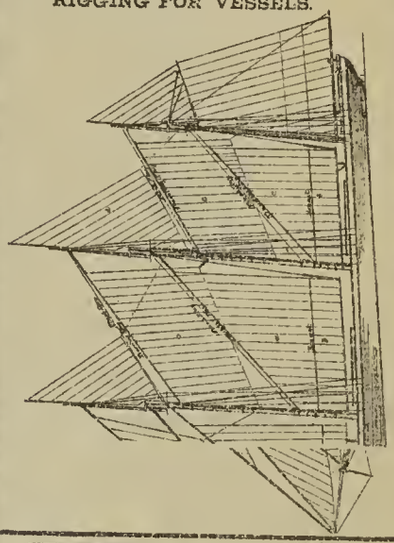
101,849, J. D. FIELD COMBINED HARVESTER AND THRASHER.



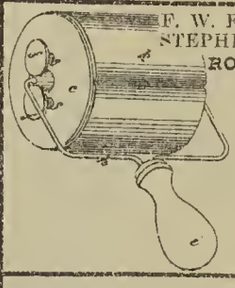
101,850, THOMAS B. FITTS, AUGUSTUS D. COOKE. ICE-PITCHER.



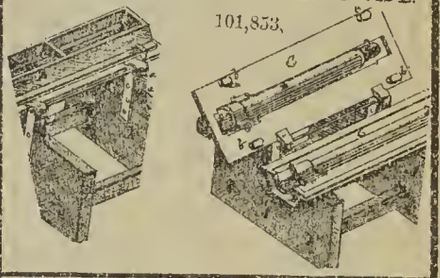
101,851, R. B. FORBES. RIGGING FOR VESSELS.



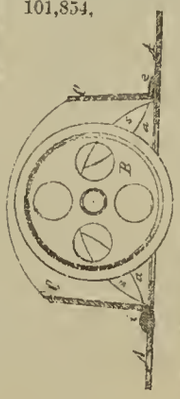
F. W. FROST, 101,852, STEPHEN L. HAYWARD. ROTARY BLOTTERS.



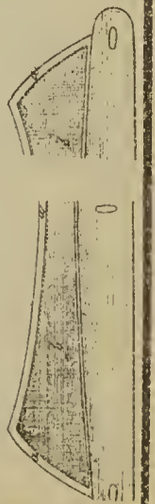
FREDERIC FULLER. APPARATUS FOR MOLDING PIPE. 101,853.



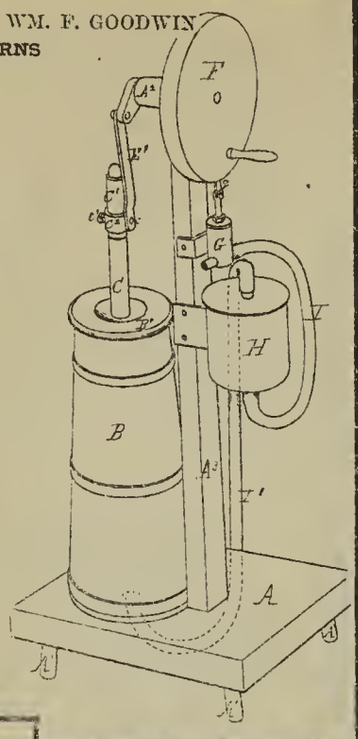
OLIVER S. GARRETSON. SASH-PULLEYS. 101,854.



GUSTAVUS ADOLPHUS GOLDSMITH 101,855, IN PAPER COLLARS.

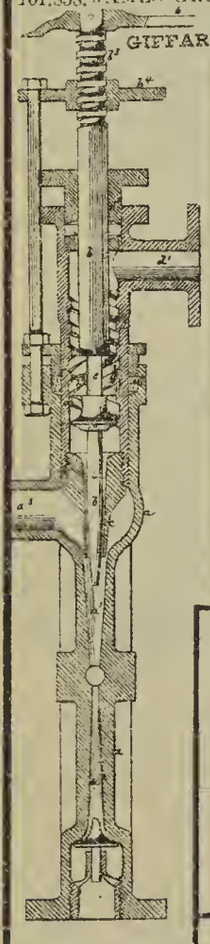


101,856, WM. F. GOODWIN
CHURNS

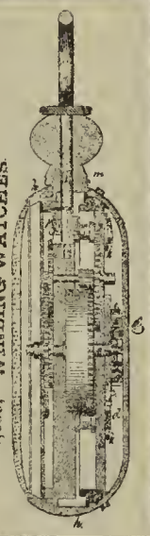


101,857,
PETER R. GOTTSTEIN.
IMPROVED CANDLE FOR MINERS' USE.

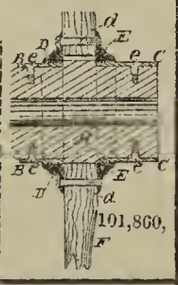
101,858, JAMES GRESHAM.
GIFFARD INJECTOR.



A. ETIENNE GUYOT.
101,859, WINDING WATCHES.



JOHN WILLIAM GUIDER.
CARRIAGE-WHEELS.



101,860,

101,861, STUART GWYNN. IMPROVED COMPOSITION OF MATTER, CALLED "METALINE," FOR JOURNALS, BEAR- INGS, &c.

101,862, STUART GWYNN. IMPROVED COMPOSITION OF MATTER. CALLED "METALINE." FOR JOURNALS, BEAR-INGS, &c.

101,863. STUART GWYNN. IMPROVED COMPOSITION OF MATTERS, CALLED "METALINE," FOR JOURNALS, BEAR-INGS, &c

101,864, STUART GWYNN. IMPROVED COMPOSITION OF MATTER, CALLED "METALINE," FOR JOURNALS, BEAR-INGS, &c.

101,865, STUART GWYNN.
IMPROVED COMPOSITION OF MATTER. CALLED "METALINE." FOR JOURNALS, BEAR-INGS, &c.

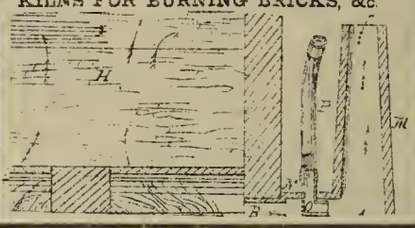
101,866, STUART GWYNN.
IMPROVED COMPOSITION OF MATTER, CALLED "METALINE," FOR JOURNALS, BEAR- INGS, &c.

101,867, STUART GWYNN.
IMPROVED COMPOSITION OF MATTER, CALLED "METALINE," FOR JOURNALS, BEAR- INGS, &c.

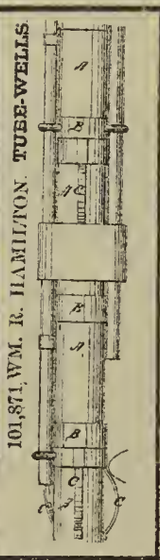
101,868, STUART GWYNN.
IMPROVED COMPOSITION OF MATTER, CALLED "METALINE," FOR JOURNALS, BEAR-INGS, &c

101,869. S. GWYNN PROCESS OF FORMING COMPOSITIONS OF MATTER, CALLED METALINE, FOR JOURNALS, BEARINGS, STEPS, AND OTHER ARTICLES LIABLE TO FRICTION.

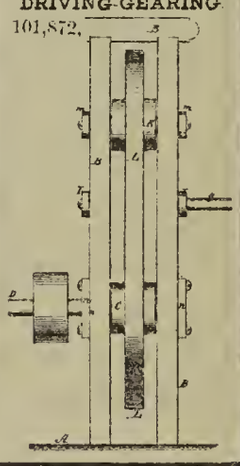
101,870. WM. SAMUEL HALL
KILNS FOR BURNING BRICKS, &c.



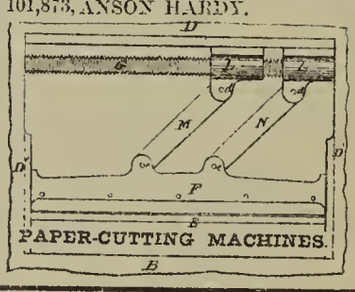
101,871, WM. R. HAMILTON. TUBE-WELLS.



GEORGE E. HAMLIN
DRIVING-GEARING.
101,872,

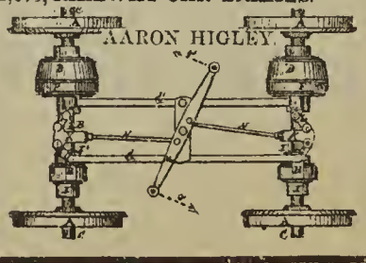


101,873, ANSON HARDY.

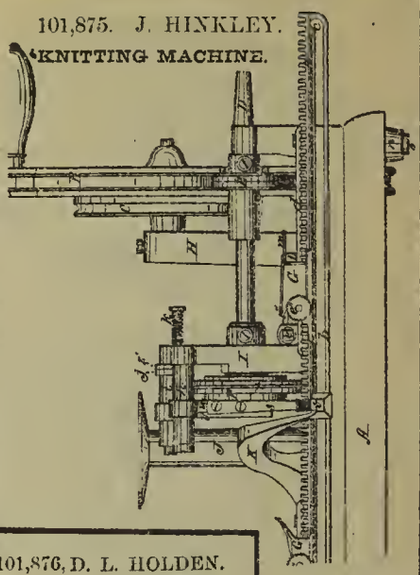


PAPER-CUTTING MACHINES.

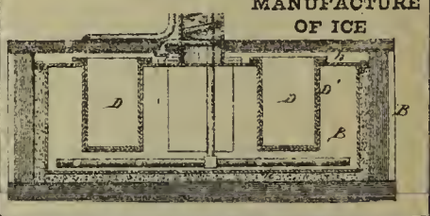
101,874, RAILWAY-CAR BRAKES.
AARON HIGLEY.



101,875. J. HINKLEY.
KNITTING MACHINE.

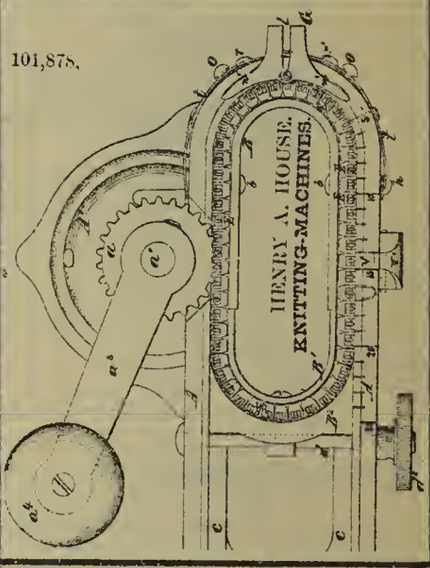


101,876, D. L. HOLDEN.
APPARATUS FOR THE MANUFACTURE OF ICE



JOHN W. HOLLINGSWORTH.
MOLDS FOR METALS.
101,877,

101,878,

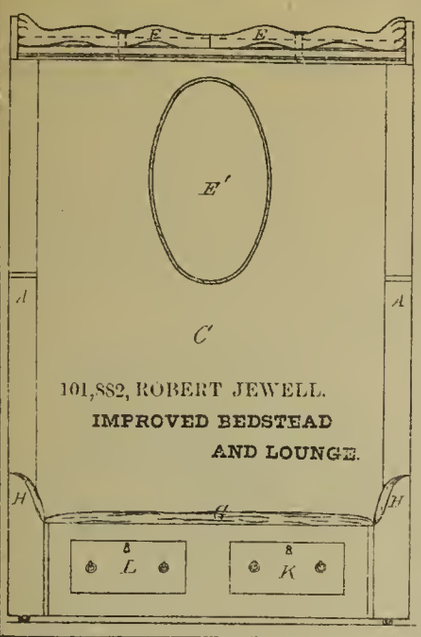


HENRY A. HOUSE.
KNITTING-MACHINES.

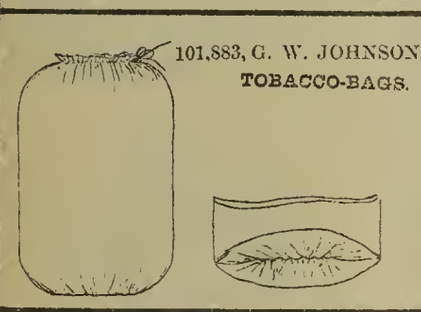
101,879, THEODORE HYATT. LINING AND COVERING REFRIGERATORS AND REFRIGERATOR-CARS.

101,880, SARDIS W. ISHAM.
PAINTS AND PIGMENTS.

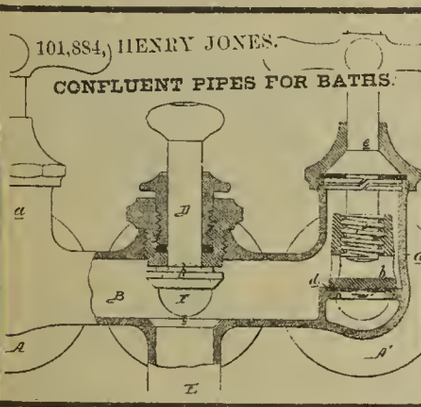
101,881, CHAS. E. JACOT.
STEM-WINDING WATCHES.



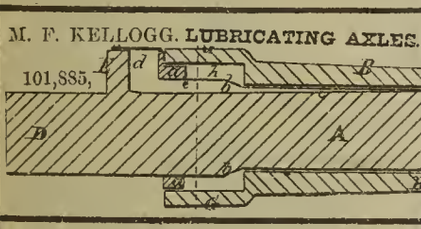
101,882, ROBERT JEWELL.
IMPROVED BEDSTEAD AND LOUNGE.



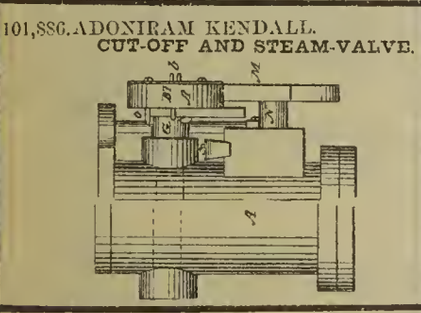
101,883, G. W. JOHNSON.
TOBACCO-BAGS.



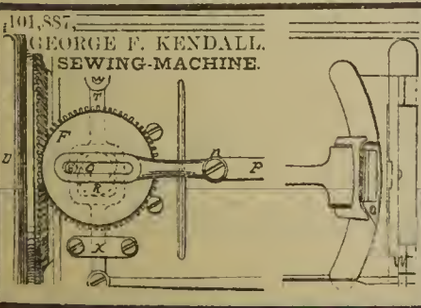
101,884, HENRY JONES.
CONFLUENT PIPES FOR BATHS.



M. F. KELLOGG. LUBRICATING AXLES.
101,885,

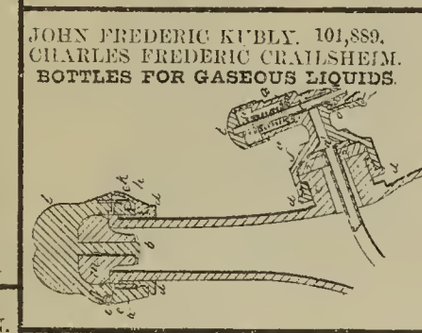


101,886. ADONIRAM KENDALL.
CUT-OFF AND STEAM-VALVE.

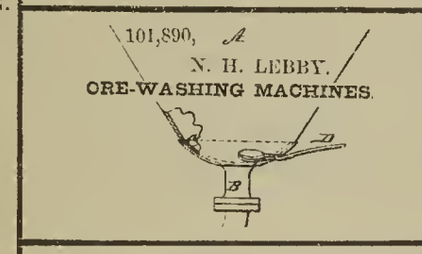


101,887,
GEORGE F. KENDALL.
SEWING-MACHINE.

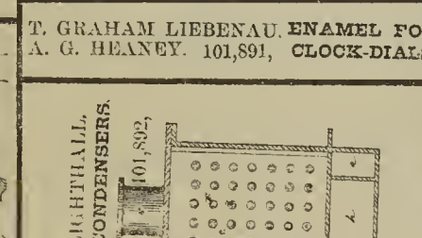
101,888, RUDOLPH KLEEMANN.
LAMPS FOR BILLIARD-TABLES.



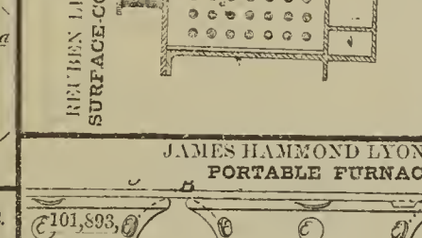
JOHN FREDERIC KUBLY. 101,889.
CHARLES FREDERIC CRAILSHEIM.
BOTTLES FOR GASEOUS LIQUIDS.



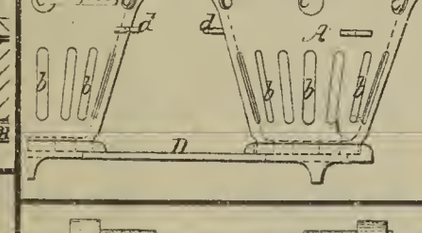
101,890,
N. H. LEBBY.
ORE-WASHING MACHINES.



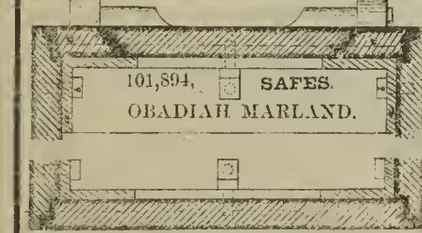
T. GRAHAM LIEBENAU. ENAMEL FOR
A. G. HEANEY. 101,891, CLOCK-DIALS



REUBEN LIGHTHALL.
SURFACE-CONDENSERS.
101,892,



JAMES HAMMOND LYON.
PORTABLE FURNACE.
101,893,



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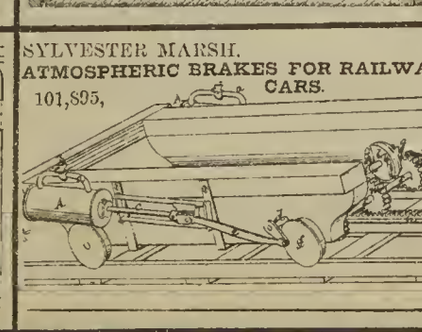
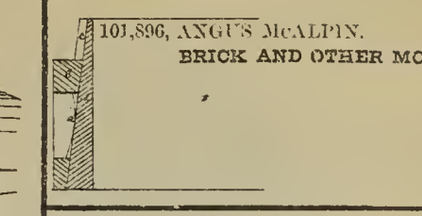
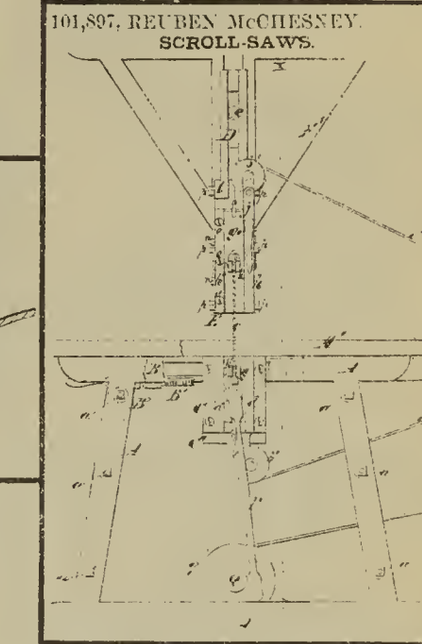
OBADIAH MARLAND.



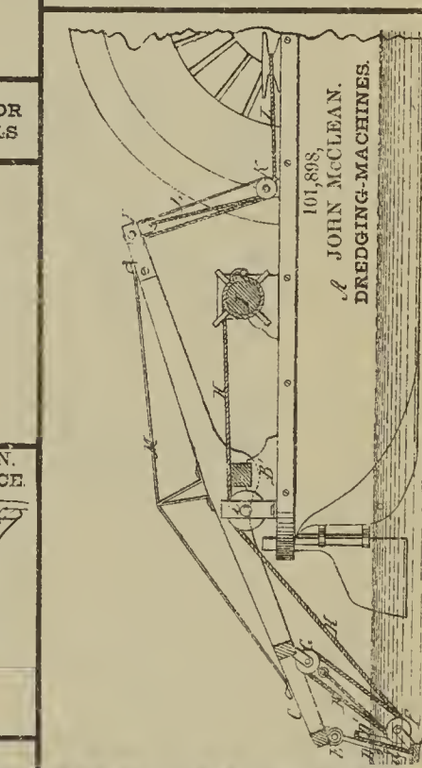
SYLVESTER MARSH.
ATMOSPHERIC BRAKES FOR RAILWAY CARS.
101,895,



101,896, ANGUS McALPIN.
BRICK AND OTHER MOLDS.

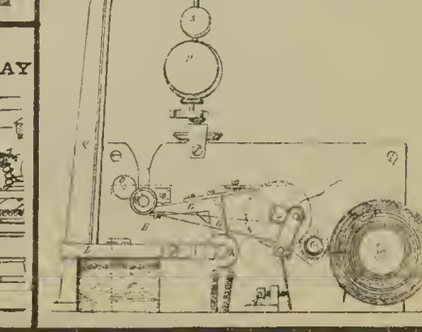


101,897, REUBEN McCHESNEY.
SCROLL-SAWS.



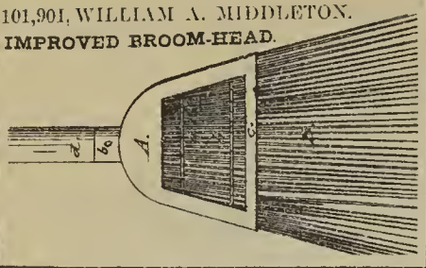
101,898,
JOHN McCLEAN.
DREDGING-MACHINES.

101,899, LEVIN ALBERT MESSINGER.
PAINT OR COATING FOR SHIPS' BOTTOMS.



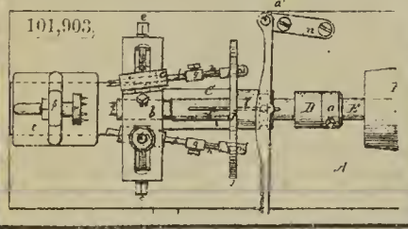
101,900, MEYER.
TELEGRAPH-APPARATUS.

101,901, WILLIAM A. MIDDLETON.
IMPROVED BROOM-HEAD.

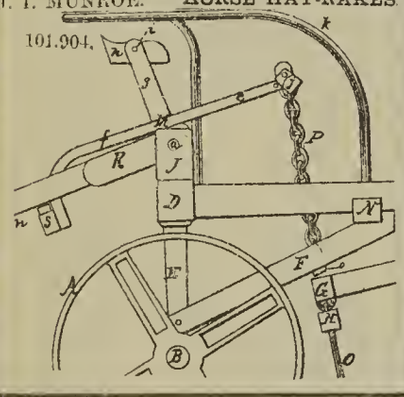


LEON EUGENE CAMERON MOORE.
JAMES SHOCKEY HAMILTON.
101,902, LAMPS

JOHN I. MUNROE. BUNG-CUTTER.
101,903.

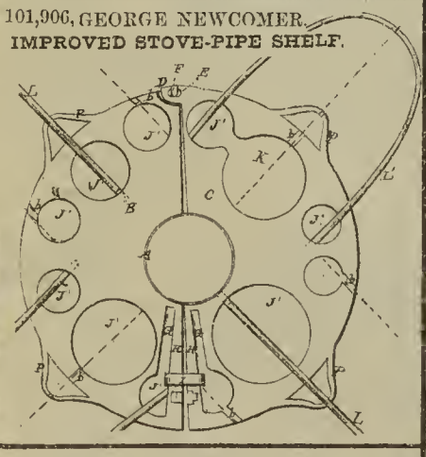


J. I. MUNROE. HORSE HAY-RAKES.
101,904.



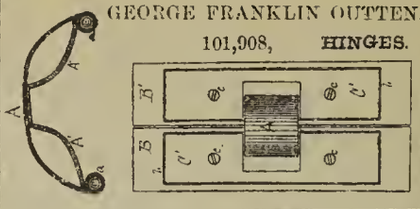
101,905, JOHN MURPHY.
INDIA RUBBER PACKING, BELTING AND HOSE.

101,906, GEORGE NEWCOMER.
IMPROVED STOVE-PIPE SHELF.

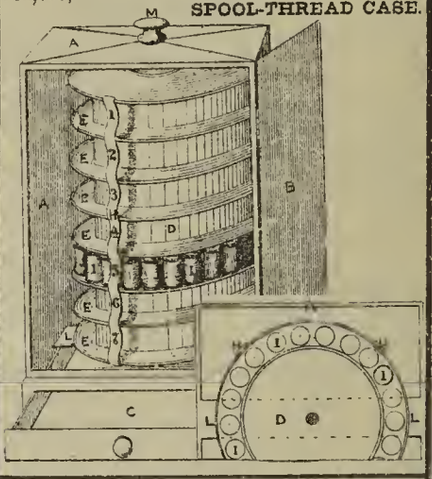


101,907,
J. H. O'NEIL.
HANGING-BASKETS.

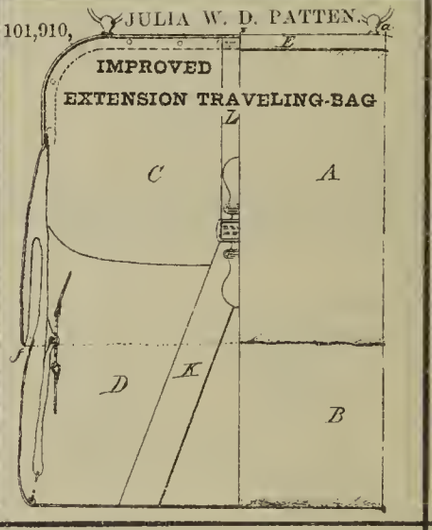
GEORGE FRANKLIN OUTTEN.
101,908, HINGES.



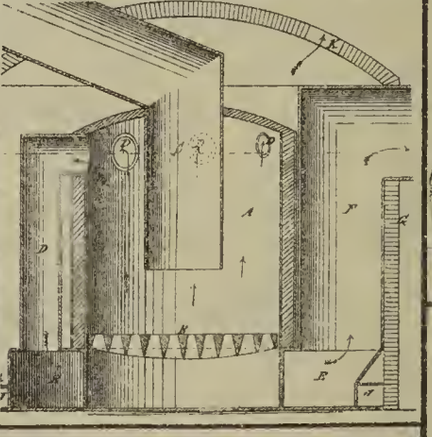
101,909, ALBION PARSONS. IMPROVED SPOOL-THREAD CASE.



101,910, JULIA W. D. PATTEN.
IMPROVED EXTENSION TRAVELING-BAG



101,911, JOHN G. PORTER.
BASE-BURNING HOT-AIR FURNACE.

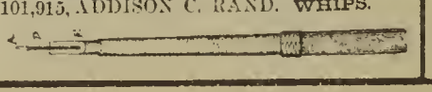


101,912, ADDISON C. RAND. WHIPS.

101,913, A. C. RAND. WHIPS

101,914, ADDISON C. RAND. WHIPS

101,915, ADDISON C. RAND. WHIPS.



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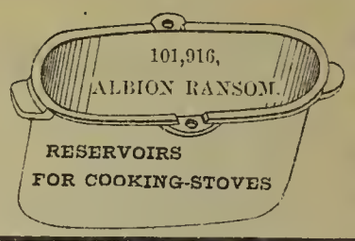
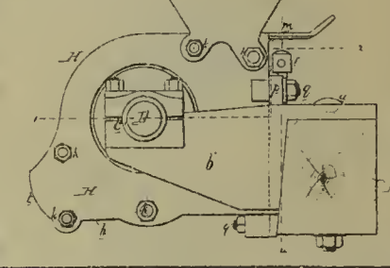
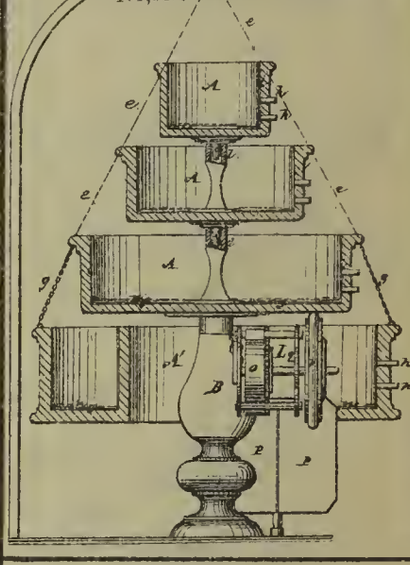
ALBION RANSOM.
RESERVOIRS FOR COOKING-STOVES



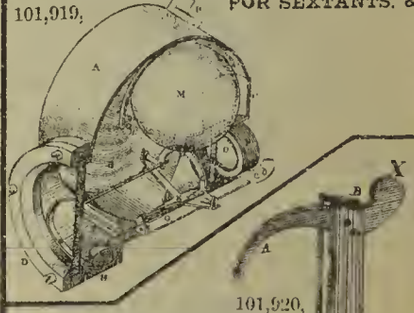
CHARLES HENRY ROBERTS.
101,917,
GRINDING-MILLS.



ELEVATED AND SUSPENDED GARDENS
101,918. F. O. ROGERS.



JOSEPH A. ROGERS.
ARTIFICIAL HORIZON FOR SEXTANTS, &c.
101,919.



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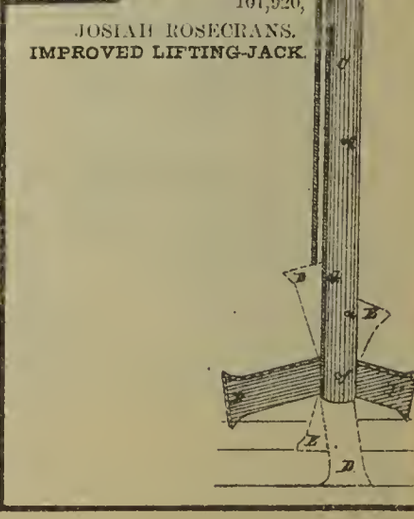
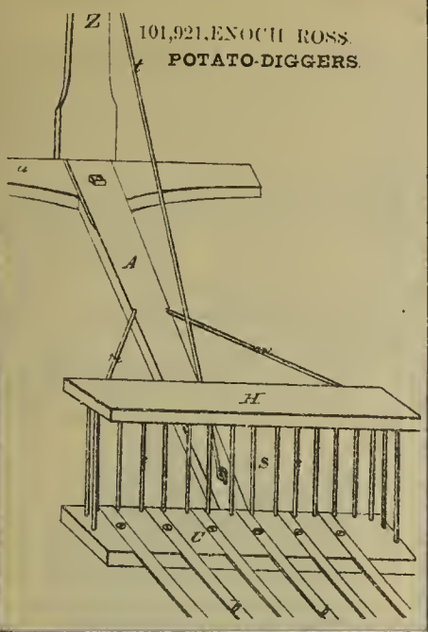
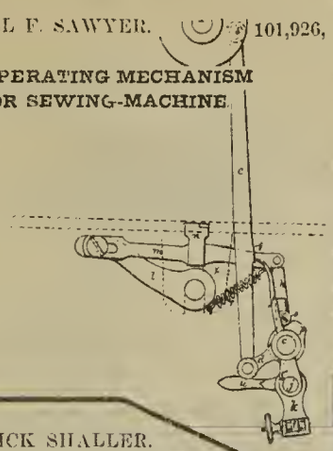
JOSIAH ROSECRANS.
IMPROVED LIFTING-JACK.



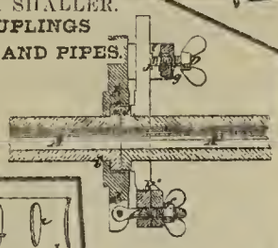
101,921, ENOCH ROSS.
POTATO-DIGGERS.



NOWELL F. SAWYER. 101,926,
FEED-OPERATING MECHANISM FOR SEWING-MACHINE.

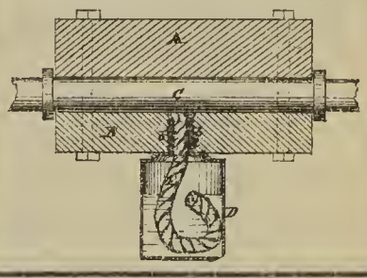


FREDERICK SHALLER.
101,927, COUPLINGS FOR HOSE AND PIPES.

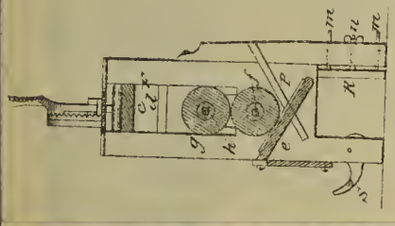


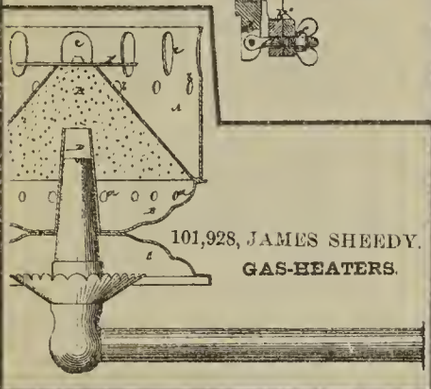
101,932, DAVID FRANCIS SMITH.
PAPER-COLLARS.

101,933, THOMAS S. SPEAKMAN.
LUBRICATING AXLE-BOXES.



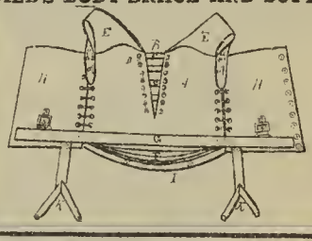
101,922, JOHN G. ROTH.
IMPROVED CLOTHES-WRINGER.





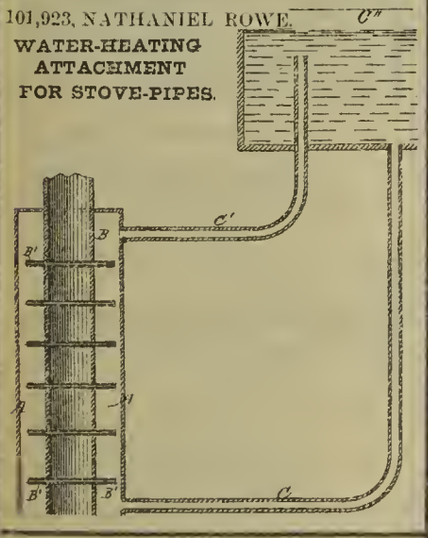
101,928, JAMES SHEEDY.
GAS-HEATERS.

101,934, LINDA SPIGELMYER.
CHILD'S BODY-BRACE AND SUPPORTER.

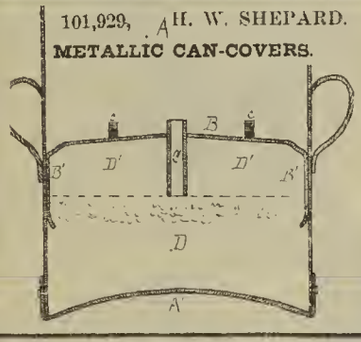


101,935, A. RADISSON ST. CYR.
TREATING FATTY MATTERS FOR THE MANUFACTURE OF CANDLES.

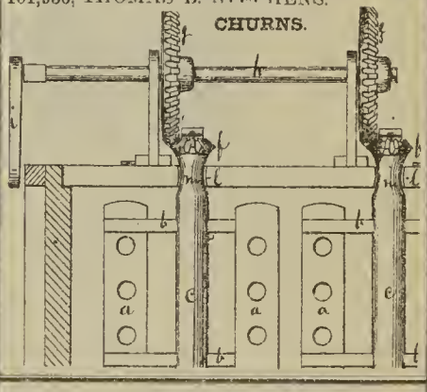
101,923, NATHANIEL ROWE.
WATER-HEATING ATTACHMENT FOR STOVE-PIPES.



101,929, H. W. SHEPARD.
METALLIC CAN-COVERS.



101,936, THOMAS B. STEPHENS.
CHURNS.

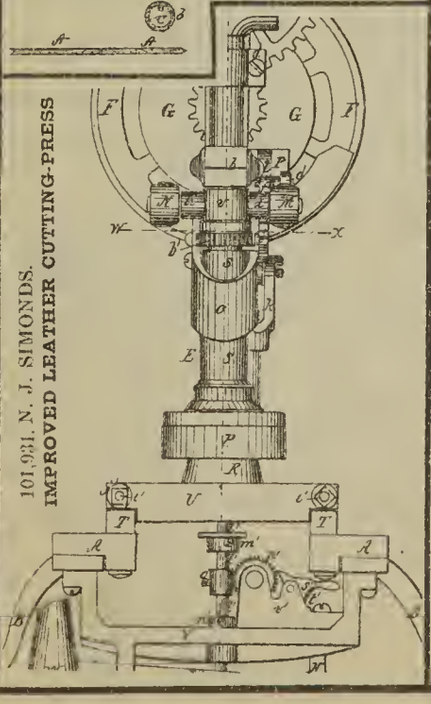


101,930, E. G. SHORTT.
C. OBERLY.
CUTTER-BARS FOR HARVESTERS.

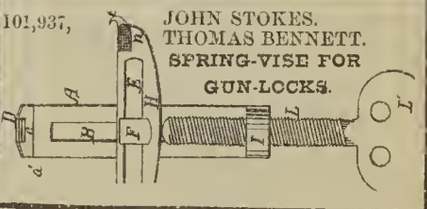
BENJAMIN F. RYDER. CASTERS FOR SEWING-MACHINES.
101,924,

101,925,
THOMAS SANDBACH.
JOSEPH W. FOWLER.
IMPROVED WELL-BORER.

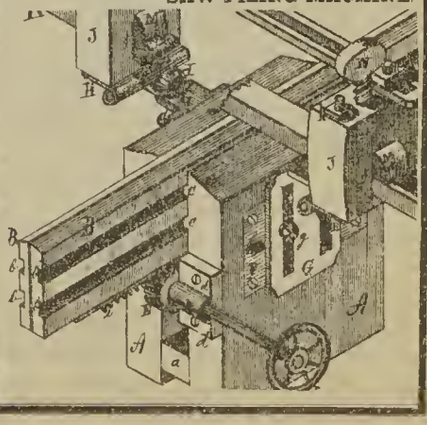
101,931, N. J. SIMONDS.
IMPROVED LEATHER CUTTING-PRESS



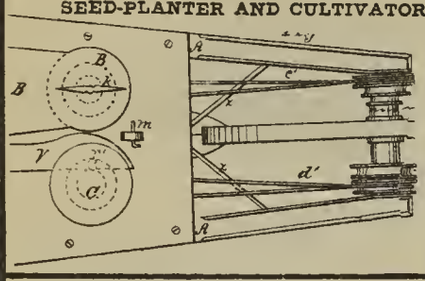
101,937,
JOHN STOKES.
THOMAS BENNETT.
SPRING-VISE FOR GUN-LOCKS.



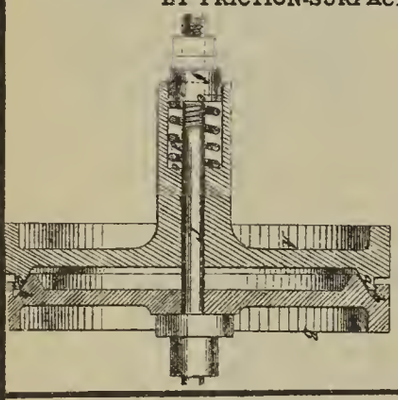
101,938, R. H. STRONG.
SAW-FILING MACHINE.



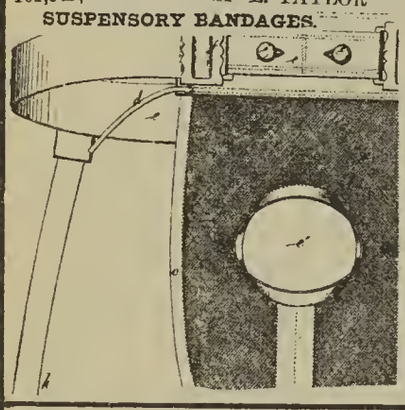
101,939, W. D. STROUD.
SEED-PLANTER AND CULTIVATOR.



101,940, BENJN. TATHAM.
REGULATING POWER CONVEYED BY FRICTION-SURFACES.

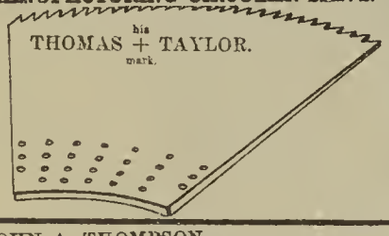


101,941, JOHN L. TAYLOR
SUSPENSORY BANDAGES.

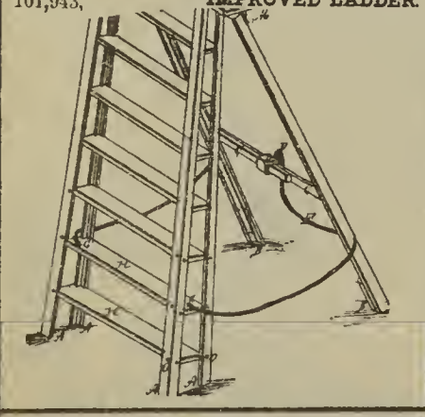


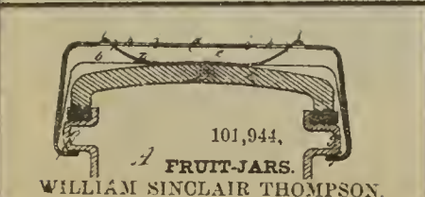
101,942, **IMPROVED METHOD OF MANUFACTURING CIRCULAR SAWS.**

THOMAS his + mark. TAYLOR.



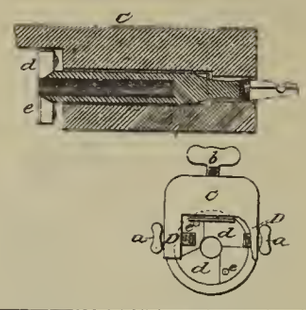
JOHN A. THOMPSON.
101,943, **IMPROVED LADDER.**



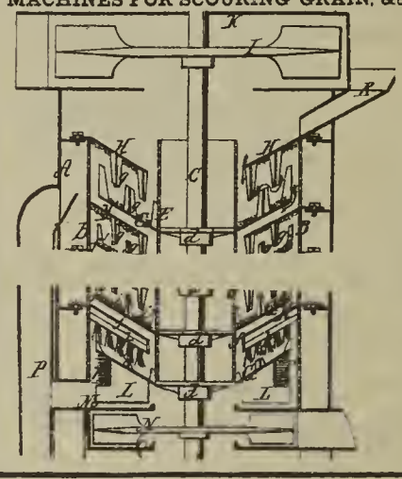


101,944,
FRUIT-JARS.
WILLIAM SINCLAIR THOMPSON.

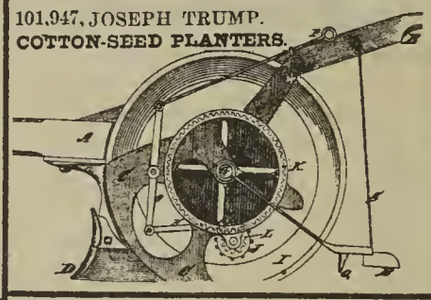
101,945, C. W. TOMPKINS.
DEVICE FOR TENONING SPOKES.

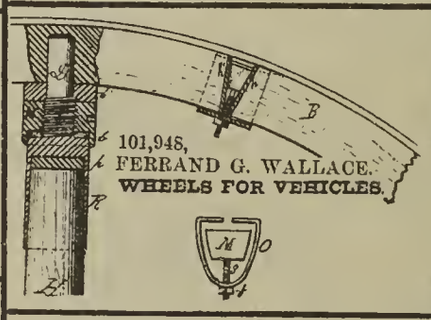


101,946, B. T. TRIMMER.
MACHINES FOR SCOURING GRAIN, &c.



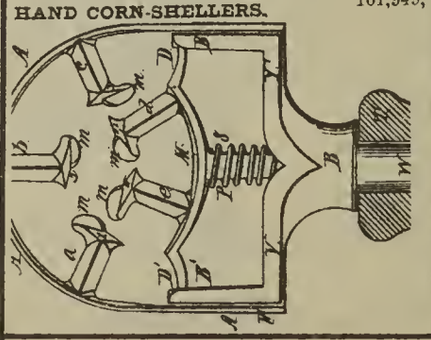
101,947, JOSEPH TRUMP.
COTTON-SEED PLANTERS.



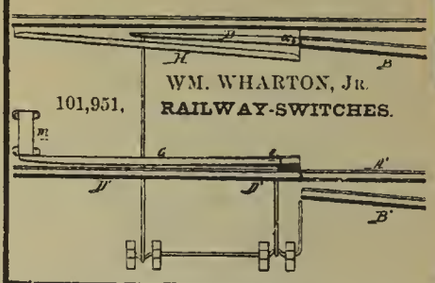


101,948,
FERRAND G. WALLACE.
WHEELS FOR VEHICLES.

THEOPHILUS WEAVER.
HAND CORN-SHELLERS. 101,949,

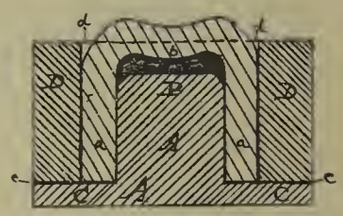


VALENTIN WEISMANTEL.
101,950, **GRAIN-SCOURERS.**

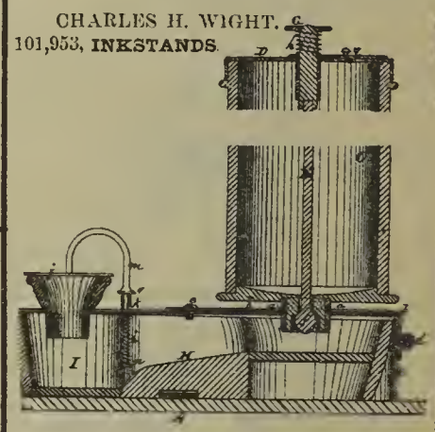


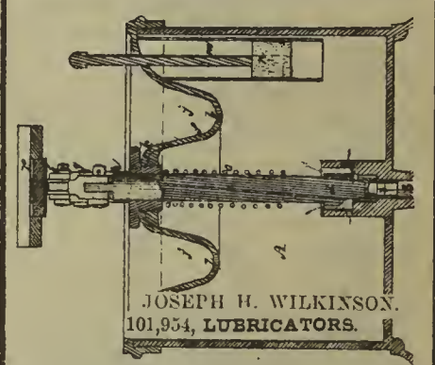
101,951, WM. WHARTON, Jr.
RAILWAY-SWITCHES.

101,952, LE ROY S. WHITE.
IMPROVED DIE FOR FORMING CARRIAGE-SHACKLES.



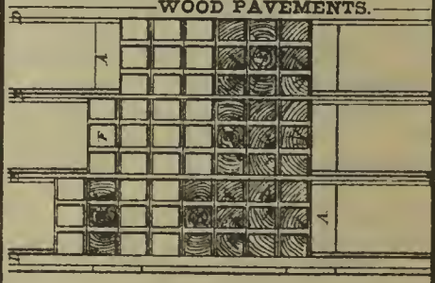
CHARLES H. WIGHT.
101,953, **INKSTANDS.**





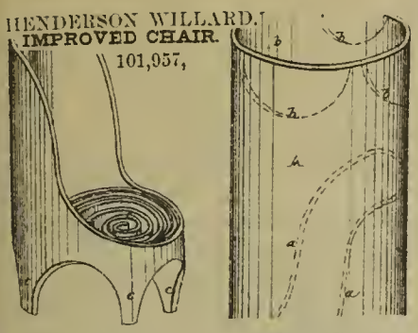
JOSEPH H. WILKINSON.
101,954, **LUBRICATORS.**

101,955, JOSEPH H. WILKINSON.
WOOD PAVEMENTS.

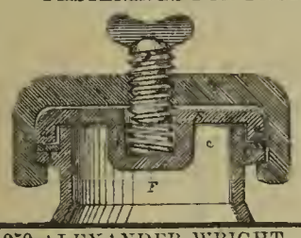


101,956. H. WILLARD.
BARREL.

HENDERSON WILLARD.
IMPROVED CHAIR.
101,957,

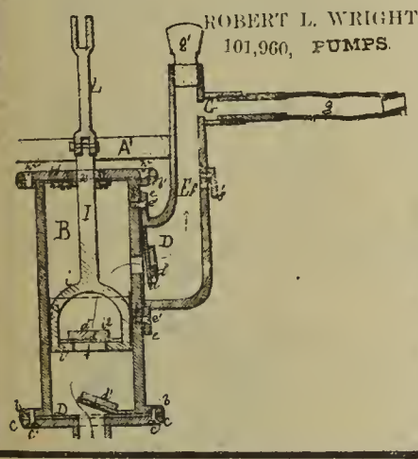


101,958, THEODORE F. WOODWARD.
FASTENINGS FOR FRUIT-JARS.

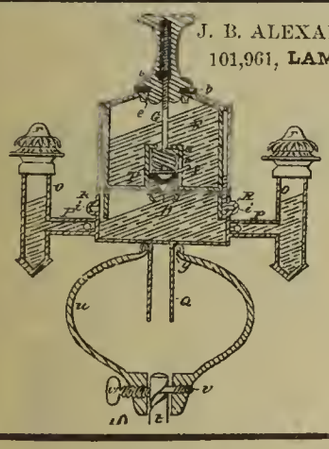


101,959, ALEXANDER WRIGHT.
ADJUSTABLE CARRIAGE-SEATS.

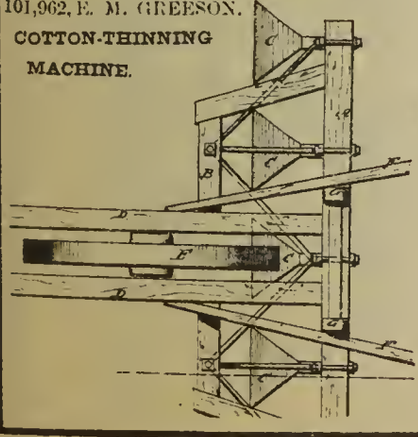
ROBERT L. WRIGHT.
101,960, PUMPS.



J. B. ALEXANDER.
101,961, LAMPS.

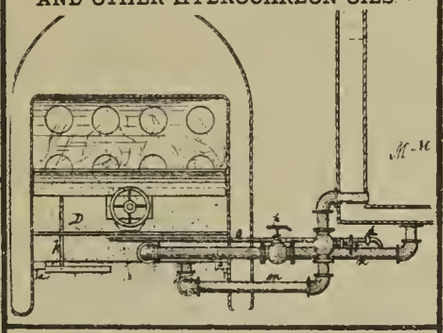


101,962, E. M. GREESON.
COTTON-THINNING MACHINE.

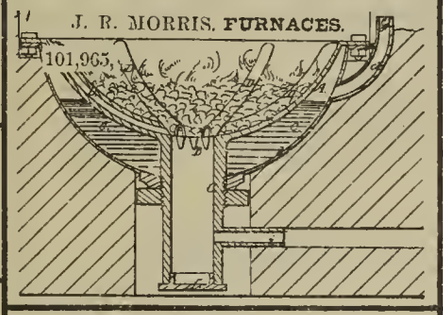


101,963, WILLIAM HARRIS.
A. WOOLEVER.
CONVERTING CAST-IRON INTO STEEL

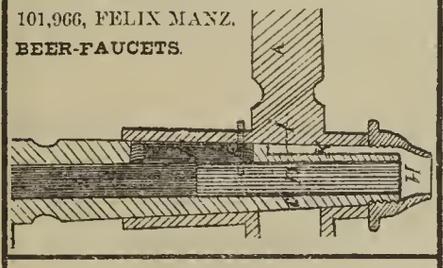
101,964, L. E. TRUESDELL.
BURNING PETROLEUM AND OTHER HYDROCARBON OILS.



J. R. MORRIS. FURNACES.
101,965,

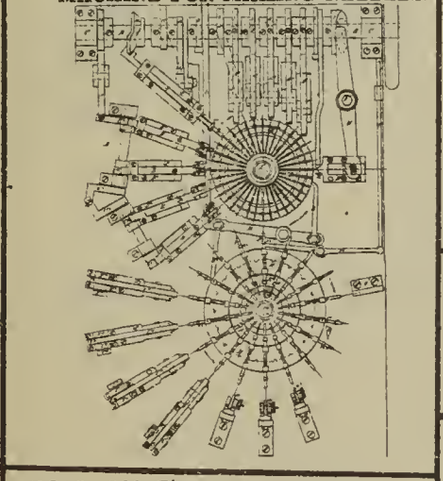


101,966, FELIX MANZ.
BEER-FAUCETS.

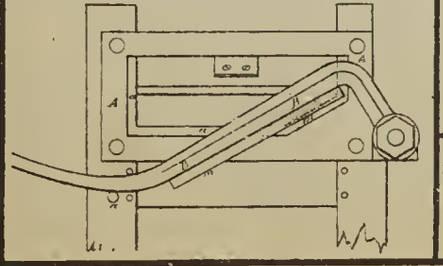


RAILROAD-CAR VENTILATOR.
3,910, F. R. HITCHCOCK.

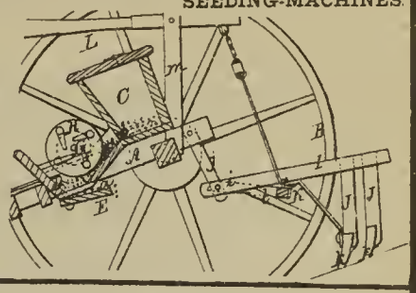
3,911, C. O. CROSBY. IMPROVED
MACHINE FOR MAKING NEEDLES.



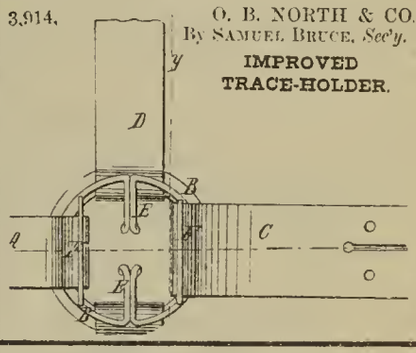
3912. W. Gale, Straw Cutter.



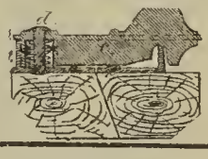
3,913. FREDERICK H. MANNY.
SEEDING-MACHINES.



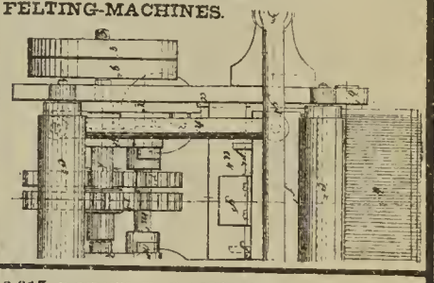
3,914, O. B. NORTH & CO.
By SAMUEL BRUCE, Sec'y.
IMPROVED TRACE-HOLDER.



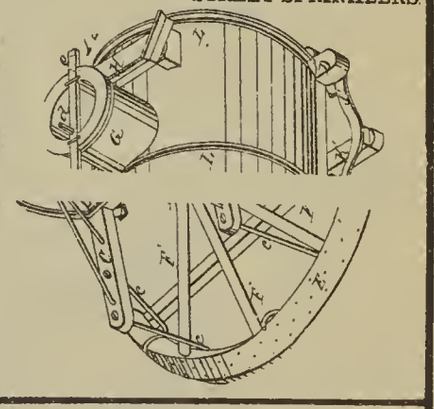
3,915, MORTON JUDD,
A. D. JUDD. SASH-FASTENERS.



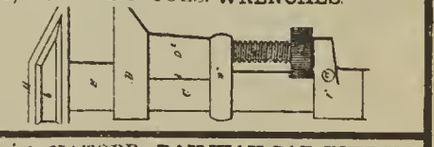
3,916, RUDOLF EICKEMEYER.
FELTING-MACHINES.



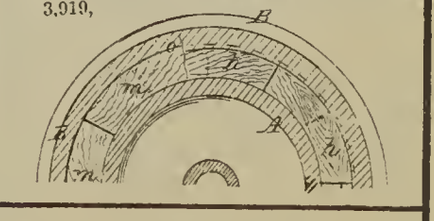
3,917, LOREY F. BANCROFT.
STREET-SPRINKLERS.



3,918. LORING COES. WRENCHES.



G. NATORP. RAILWAY-CAR WHEELS
3,919,



3,920. SHELDON INGALLS KELLOGG,
CONVERTING IRON INTO STEEL

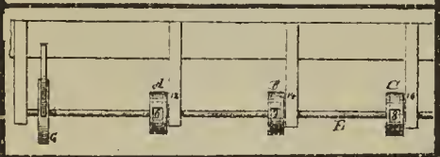
ILLUSTRATIONS OF PATENTS

ISSUED FROM

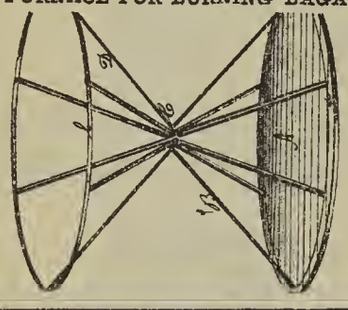
THE UNITED STATES PATENT OFFICE

APRIL 19, 1870.

101,967, I. J. W. ADAMS. **APPARATUS FOR MEASURING BOARDS.**



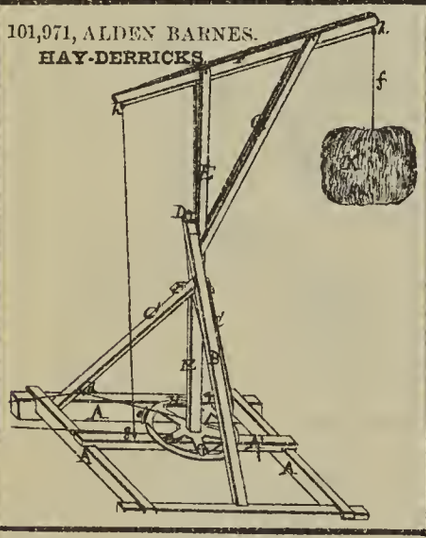
101,968, JOHN AMICK. **SPIDER-FURNACE FOR BURNING BAGASSE.**



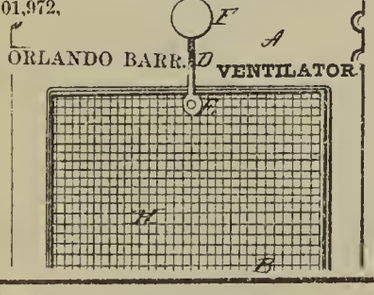
101,969, HAYDN M. BAKER. **MANUFACTURE OF STEEL FROM CAST OR PIG-IRON.**

101,970, M. G. BALFOUR. **ROOFING MATERIAL.**

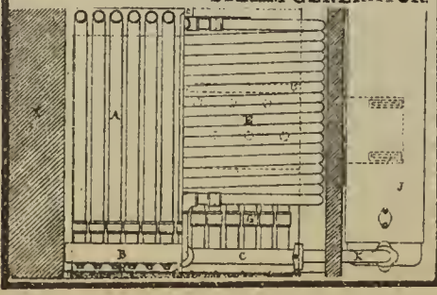
101,971, ALDEN BARNES. **HAY-DERRICKS.**



101,972, ORLANDO BARR. **VENTILATOR.**

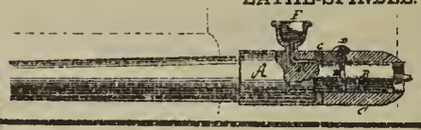


101,973, J. F. BELLEVILLE. **STEAM-GENERATOR.**

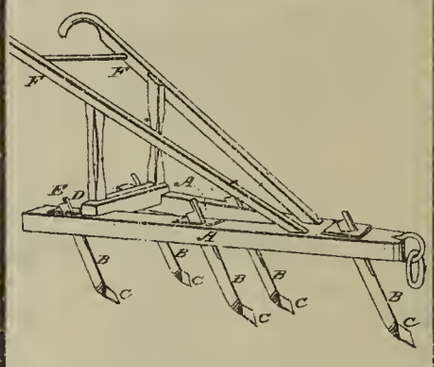


101,974, MARTIEN H. BÖTTGER. **COMPOUND FOR BOOTS AND SHOES.**

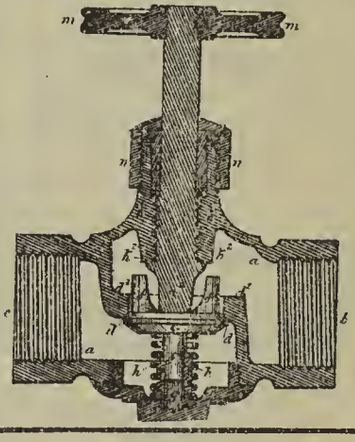
101,975, JAMES E. BOUTELLE. **LATHE-SPINDLE.**



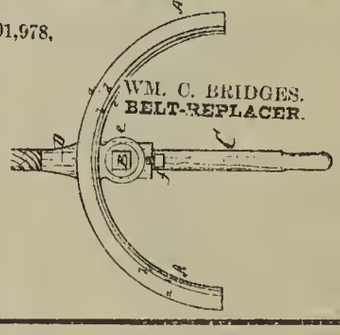
101,976, JACOB BOWER. **CULTIVATORS.**



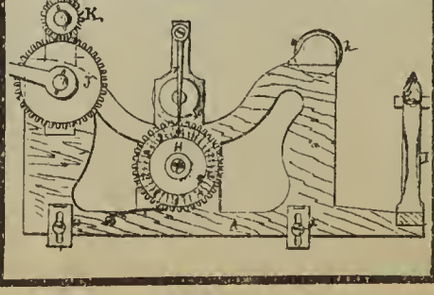
101,977, JOSEPH BREEDEN. **STOP-COCKS FOR STEAM AND LIQUIDS.**



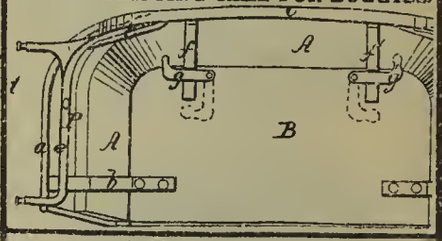
101,978, WM. C. BRIDGES. **BELT-REPLACER.**



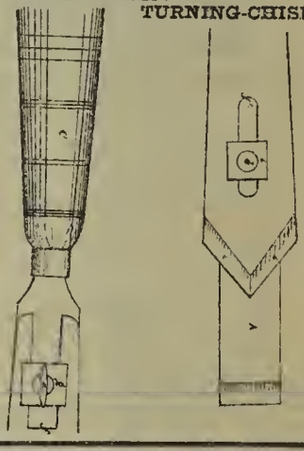
101,979, T. M. BRINTNALL. **CLOTH-MEASURING APPARATUS.**



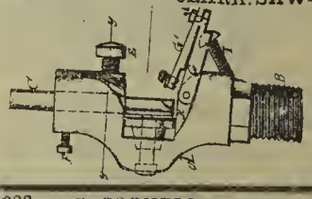
101,980, IRA BRONSON. **SHIFTING RAIL FOR BUGGIES.**



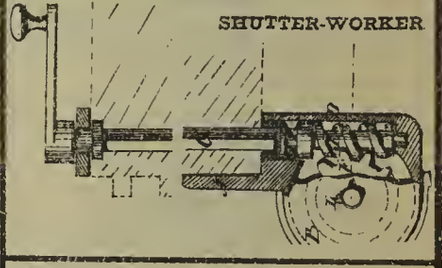
101,981, R. P. BUTTLES. SALMON SWEET. **TURNING-CHISEL.**



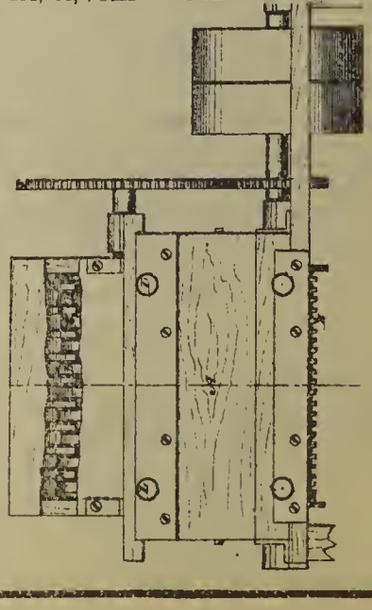
101,982, ERASTUS Y. CLARK. **SAW-SETS.**



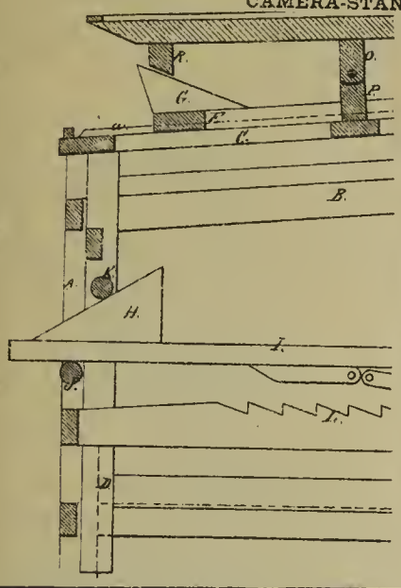
101,983, A. C. CORNELL. **SHUTTER-WORKER.**



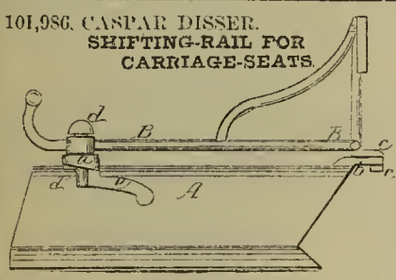
101,984, JOHN G. CURTIS. **BARK-MILLS.**



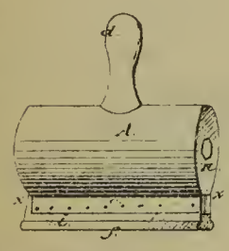
101,985, WILLIAM W. DAMES. CAMERA-STAND.



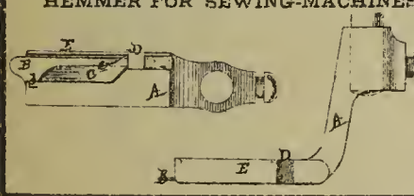
101,986, CASPAR DISSER. SHIFTING-RAIL FOR CARRIAGE-SEATS.



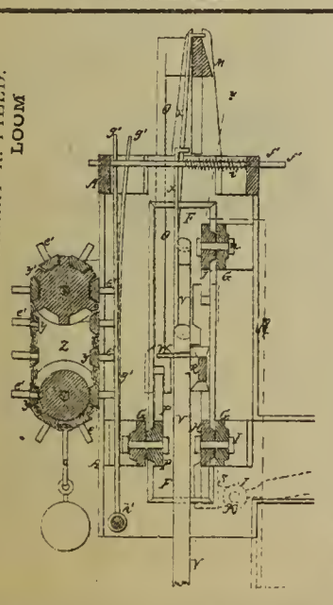
101,987, SAML. G. DUGDALE. SLATE-WASHERS.



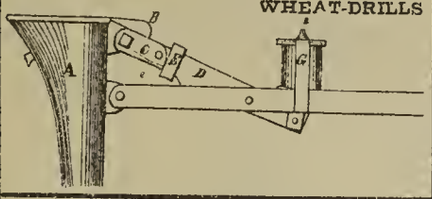
101,988, JOHN V. D. ELDREDGE. HEMMER FOR SEWING-MACHINES.



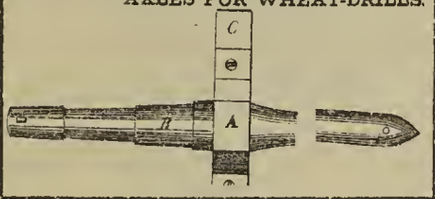
101,989, ALBERT R. FIELD. LOOM.



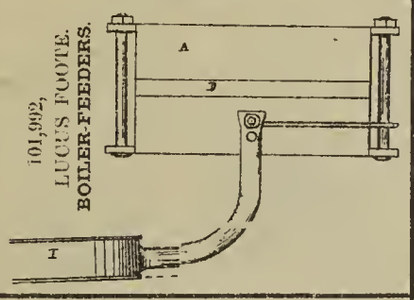
101,990, JOHN F. FISHER. WHEAT-DRILLS.



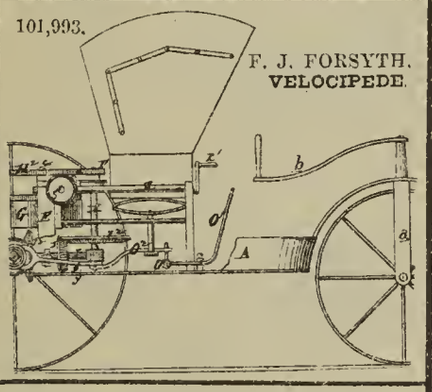
101,991, JOHN F. FISHER. AXLES FOR WHEAT-DRILLS.



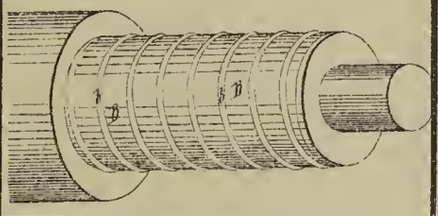
101,992, LUCIUS FOOTE. BOILER-FEEDERS.



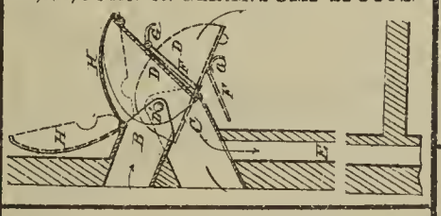
101,993. F. J. FORSYTH. VELOCIPEDE.



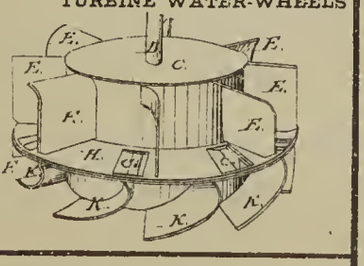
101,994, JAMES B. FORSYTH. MANUFACTURE OF ELASTIC ROLLS.



101,995, JOHN H. GLEIM. PUMP-SPOUTS.

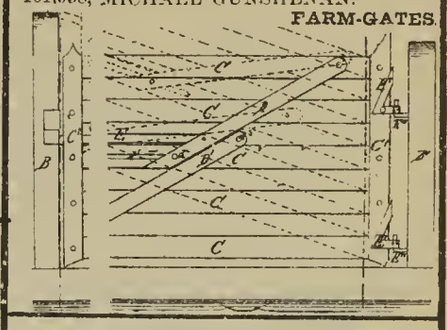


101,996. D. W. GLENDINNING. TURBINE WATER-WHEELS.

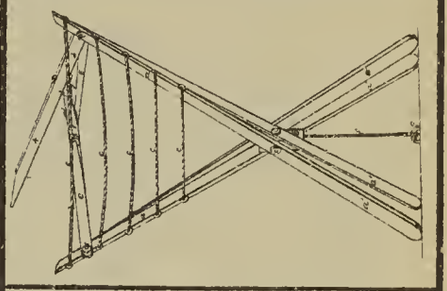


101,997, HERMAN GREVE. GUN-WIPERS.

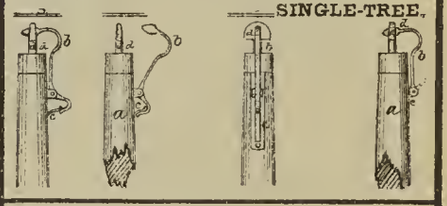
101,998, MICHAEL GUNSHENAN. FARM-GATES.



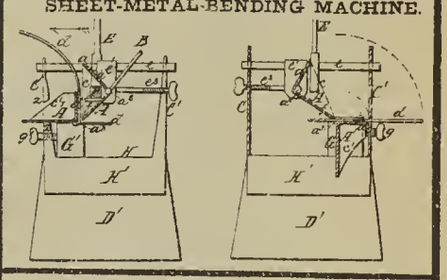
101,999, J. C. HAINES. CLOTHES-DRIER.



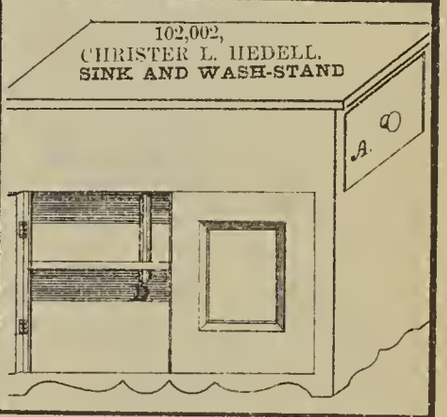
102,000, ANDREW J. HANNA. SINGLE-TREE.



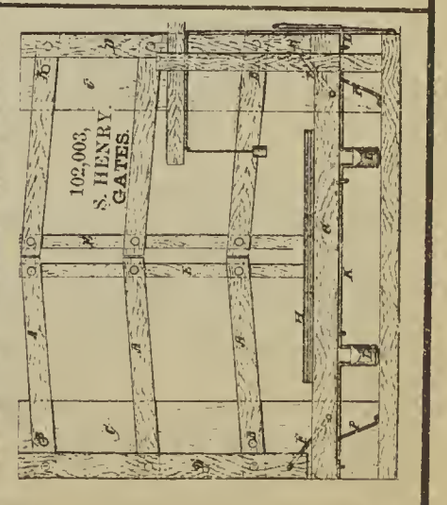
102,001, C. C. HARE. SHEET-METAL-BENDING MACHINE.



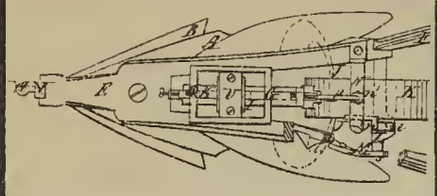
102,002, CHRISTER L. HEDELL. SINK AND WASH-STAND.

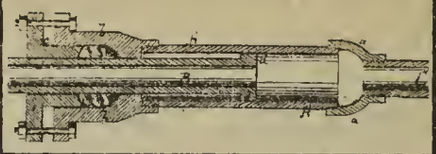


102,003, S. HENRY GATES.

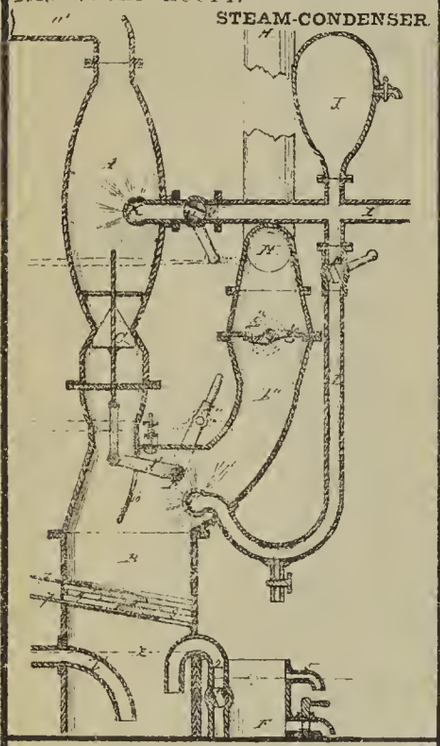


102,004, C. HIPPENSTEL. CORN-PLANTER.

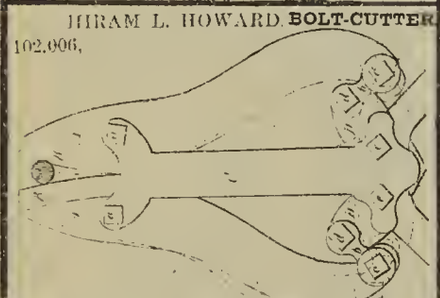




102,005, JOHN HOUPT. STEAM-CONDENSER.

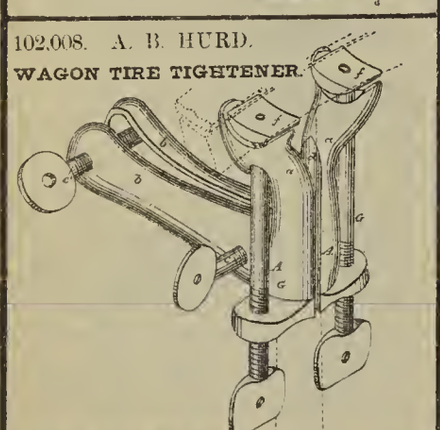


102,006, HIRAM L. HOWARD. BOLT-CUTTER.

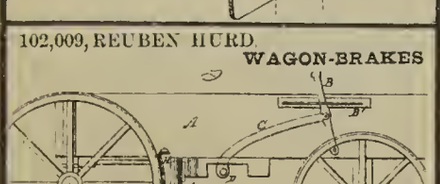


102,007, LIVERUS HULL. WHIPS.

102,008. A. B. HURD. WAGON TIRE TIGHTENER.

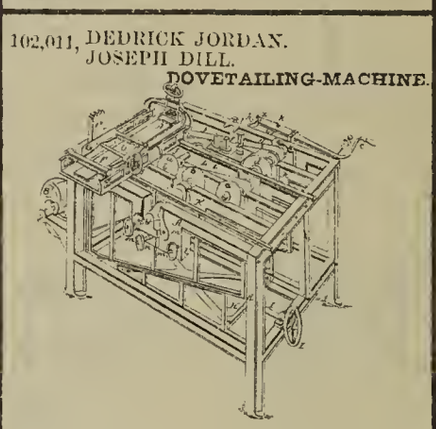


102,009, REUBEN HURD. WAGON-BRAKES.

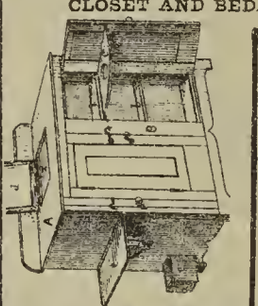


102,010. J. E. JONES. EXPANSION JOINT FOR PIPES.

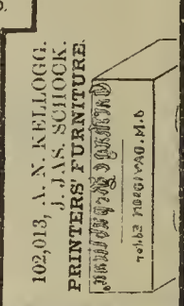
102,011, DEDRICK JORDAN. JOSEPH DILL. DOVETAILING-MACHINE.



102,012, WILLIAM KELLY. CLOSET AND BED.

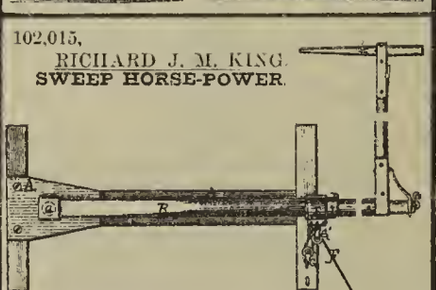


102,013, A. N. KELLOGG. J. JAS. SCHOCK. PRINTERS' FURNITURE.

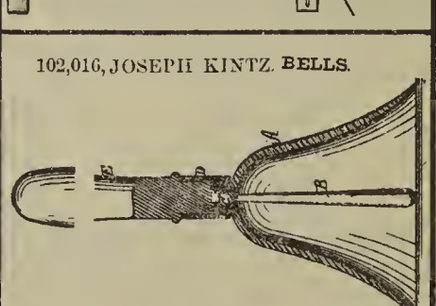


102,014, SAMUEL KENNEDY. BOOT-JACK AND BRUSH.

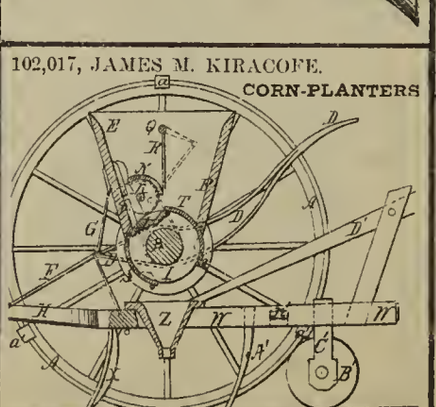
102,015, RICHARD J. M. KING. SWEEP HORSE-POWER.



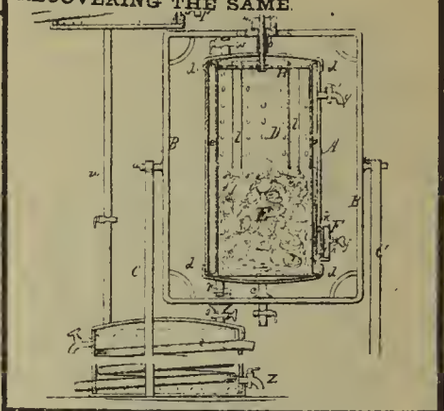
102,016, JOSEPH KINTZ. BELLS.



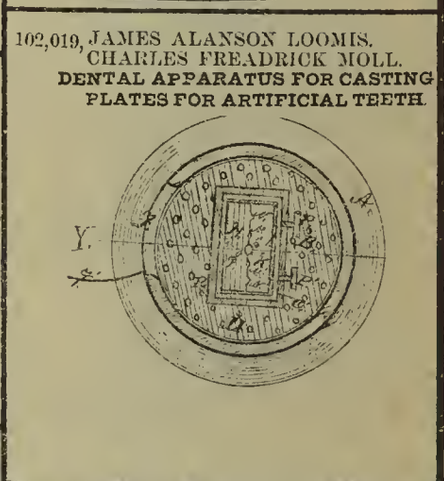
102,017, JAMES M. KIRACOFE. CORN-PLANTERS.



102,018. J. W. KREPPS. APPARATUS FOR REMOVING OILS, GREASE, GUMS, AND THE LIKE, FROM COTTON AND WOOLEN WASTE, AND RECOVERING THE SAME.

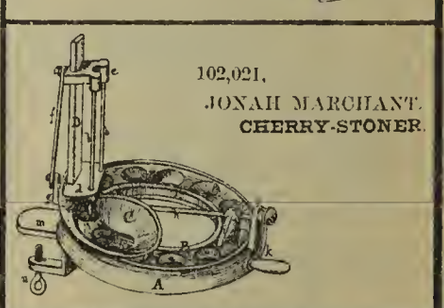


102,019, JAMES ALANSON LOOMIS. CHARLES FREADRICK MOLL. DENTAL APPARATUS FOR CASTING PLATES FOR ARTIFICIAL TEETH.

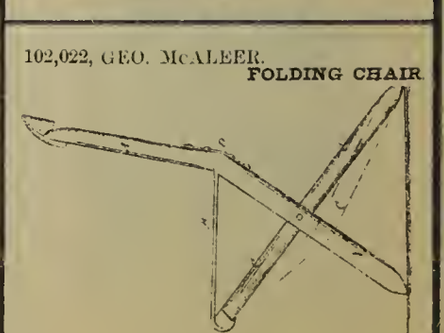


102,020, HECTOR MACKINNON. SMOKE-STACKS.

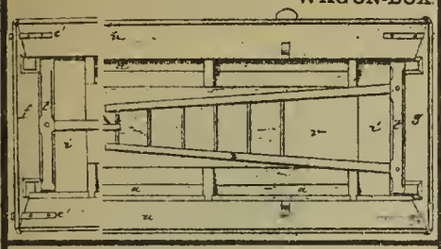
102,021, JONAH MARCHANT. CHERRY-STONER.



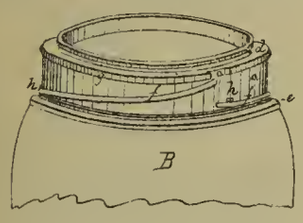
102,022, GEO. McALEER. FOLDING CHAIR.



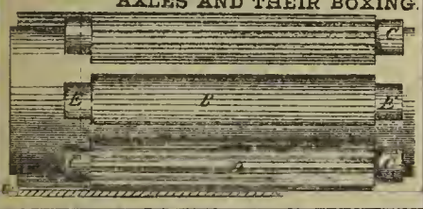
102,023, F. G. McCLELLAN.
COMBINED HAY-RACK AND WAGON-BOX.



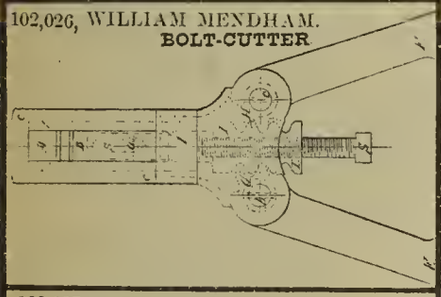
102,024, ROBERT McCULLY. FRUIT-JARS.



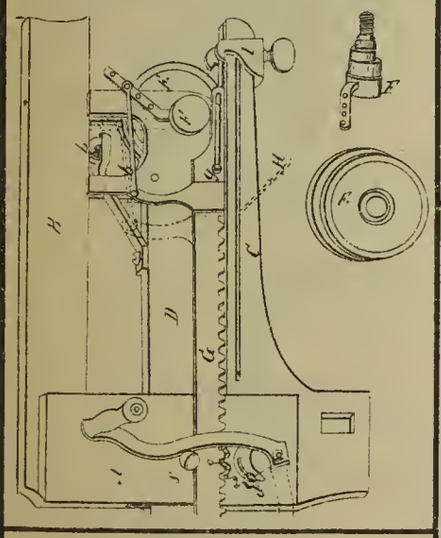
102,025, R. R. McGREGOR.
AXLES AND THEIR BOXING.



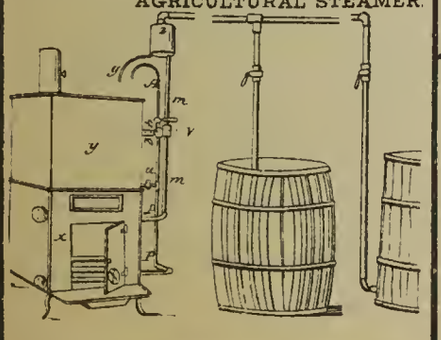
102,026, WILLIAM MENDHAM.
BOLT-CUTTER.



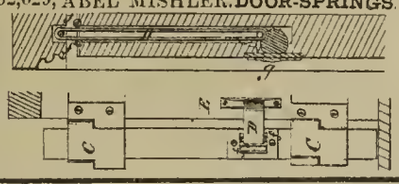
102,027, DAVID H. METCALF.
DANIEL SQUIER.
SHEET-METAL-GROOVING MACHINES.



102,028, HENRY W. MILLAR.
AGRICULTURAL STEAMER.

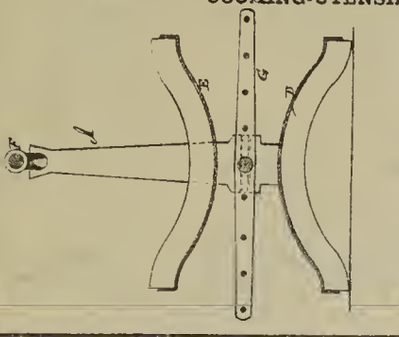


102,029, ABEL MISHLER. DOOR-SPRINGS.

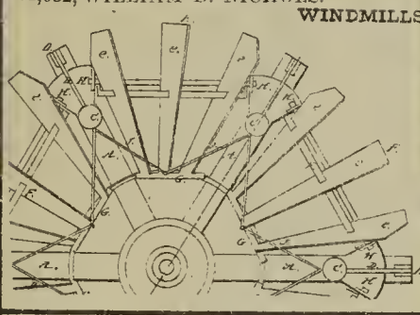


102,030, J. MOOG. METHOD OF TREATING TRACING-PAPER.

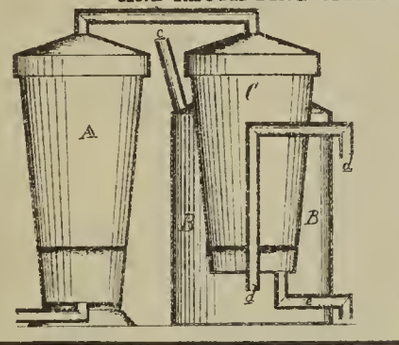
102,031, JAMES A. MORRISON.
COOKING-UTENSIL.



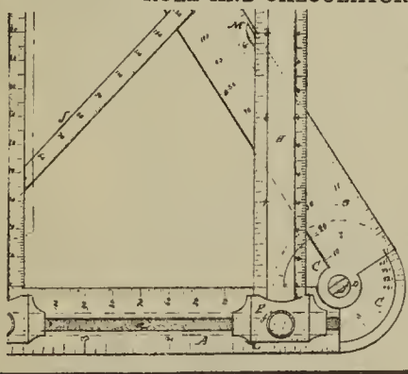
102,032, WILLIAM D. NICHOLS.
WINDMILLS.



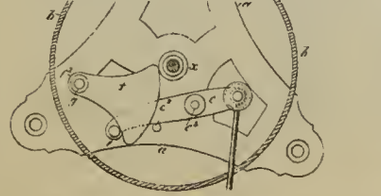
102,033, ALONZO NOTEMAN.
APPARATUS FOR REDISTILLING AND RECTIFYING SPIRITS.



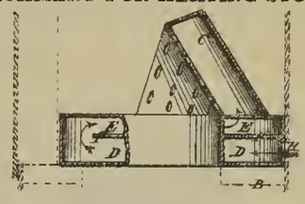
102,034, NELS OCKERLUND.
RULE AND CALCULATOR.



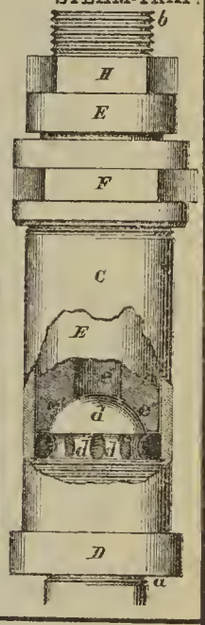
102,035, THOMAS PEMBERTON.
GEORGE ARTHUR PEMBERTON.
ALARM AND OTHER BELLS.



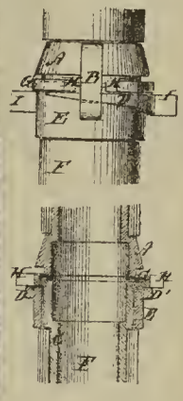
102,036, JOHN L. PFAU.
ATTACHMENT FOR HEATING-STOVES.



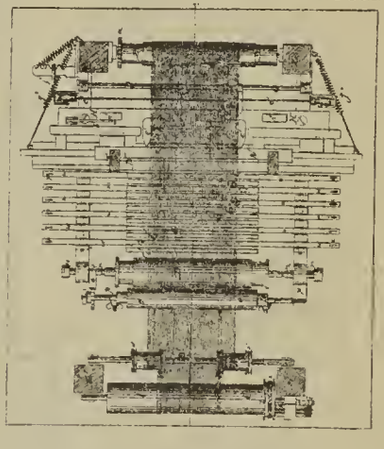
102,037, LOUIS H. PLUM.
STEAM-TRAP.



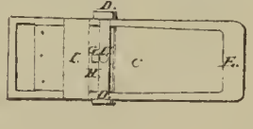
102,038, CHARLES POWELL.
HOSE-COUPLINGS.



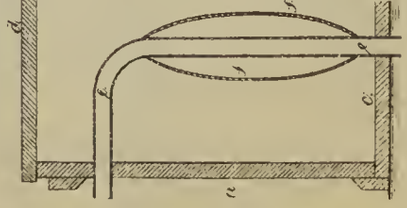
102,039, PIERRE FRANÇOIS RAMEL.
JEAN DROGAT.
LOOM.



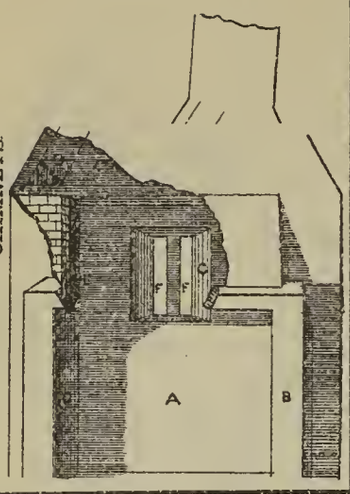
102,040, GEORGE REYER.
HARNESS-BUCKLES.



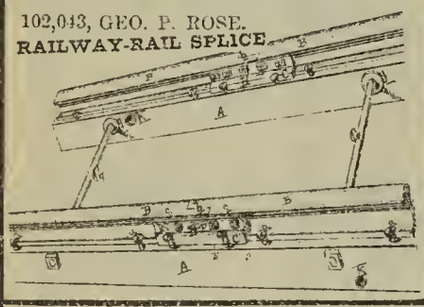
102,041, M. REYNOLDS.
COOLING ALE AND BEER.



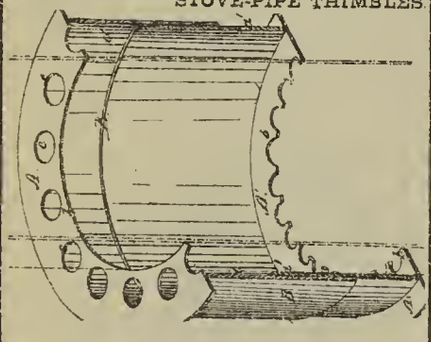
102,042, FRANCIS RICHARDSON. CHIMNEYS.



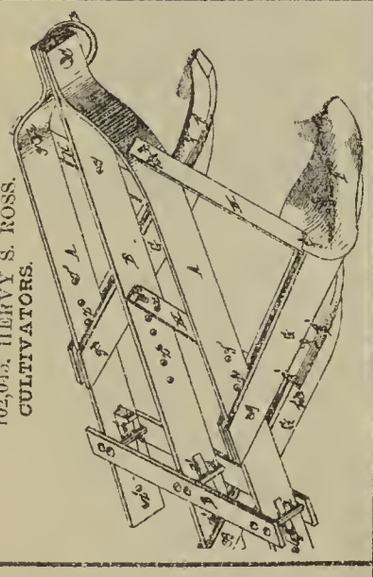
102,043, GEO. P. ROSE. RAILWAY-RAIL SPLICE.



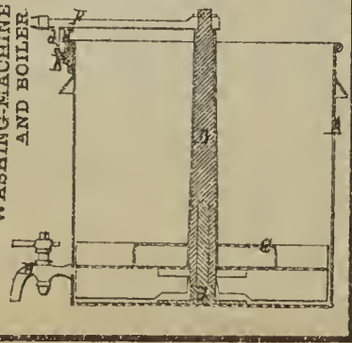
102,041, PHILIP HENRY ROSE. MILLER BARNEY HUDSON. STOVE-PIPE THIMBLES.



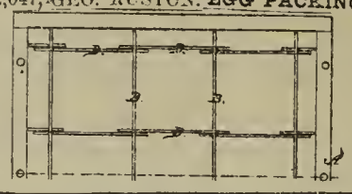
102,045, HENRY S. ROSS. CULTIVATORS.



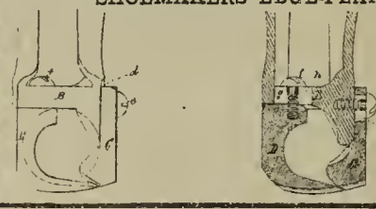
102,046, JOHN RUSSELL. THEODORE T. McGRATH. WASHING-MACHINE AND BOILER.



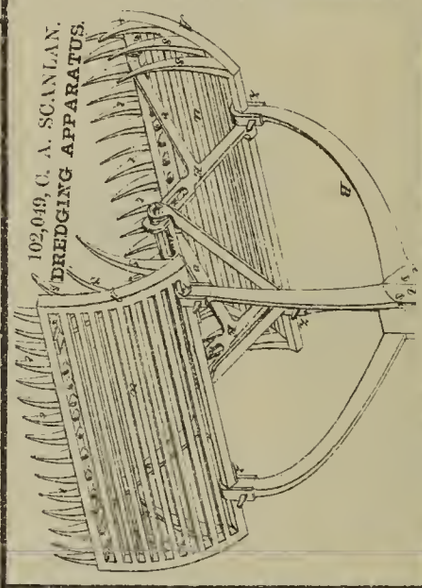
102,047, GEO. RUSTON. EGG PACKING.



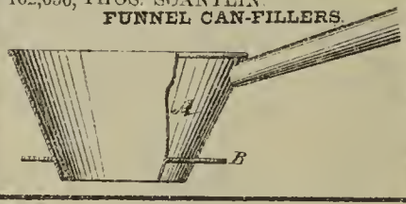
102,048, J. H. SANFORD. SHOEMAKERS' EDGE-PLANES.



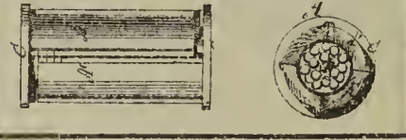
102,049, C. A. SCANLAN. DREDGING APPARATUS.



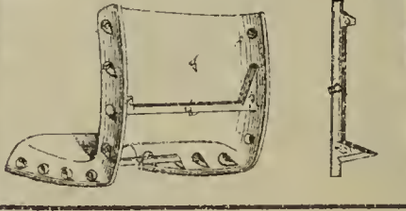
102,050, THOS. SQUANTLIN. FUNNEL CAN-FILLERS.



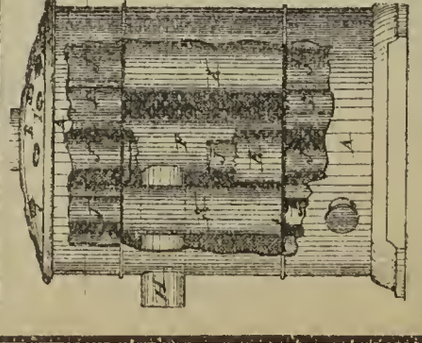
102,051, O. SCHEVENELL. CARTRIDGE-CASES.



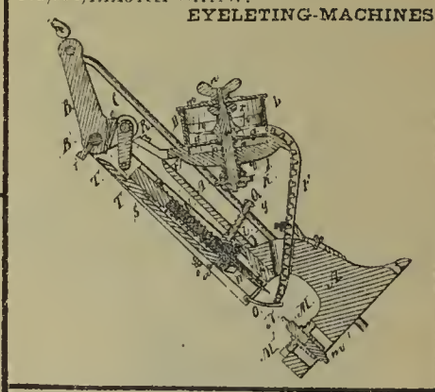
102,052, JOHN SELLORS. HORSE-COLLAR CAP.



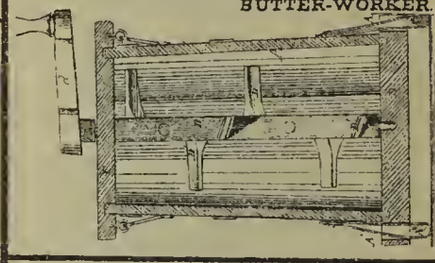
102,053, CHARLES W. SERVOSS. HEATING-DRUMS.



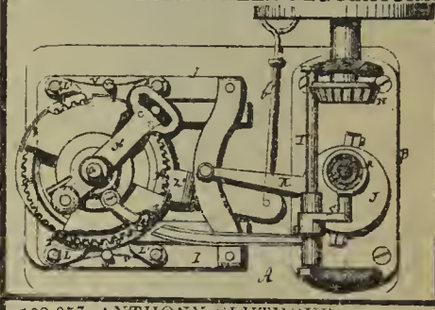
102,054, ELIJAH SHAW. EYELETING-MACHINES.



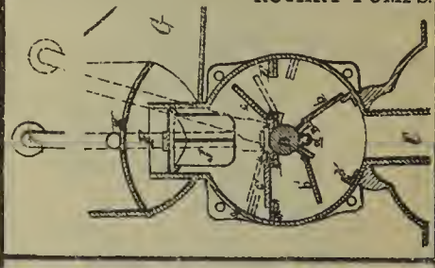
102,055, W. S. SHOEMAKER. BUTTER-WORKER.



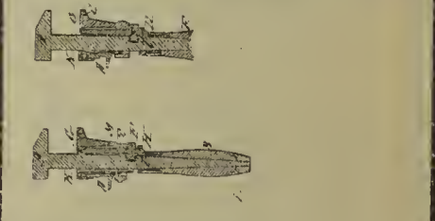
102,056, JAMES P. SIBLEY. ARTHUR WALSH. WATER-WHEEL REGULATORS.



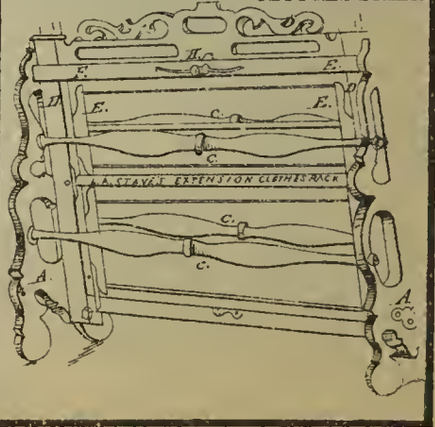
102,057, ANTHONY SLUTHOUR. ROTARY PUMPS.



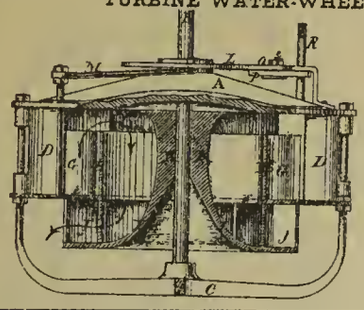
102,058, O. J. SMITH. WRENCHES.



102,059, LEWIS A. STAVE. CLOTHES-DRIER.

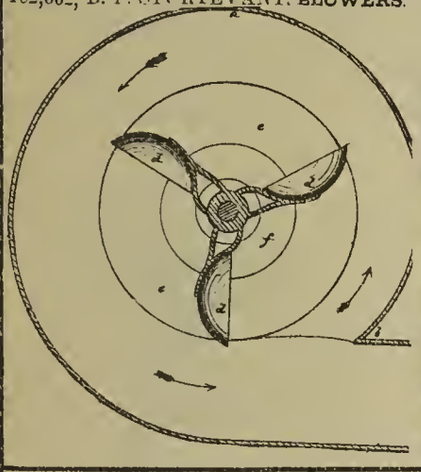


102,060, GILBERT STOVER. **TURBINE WATER-WHEELS.**

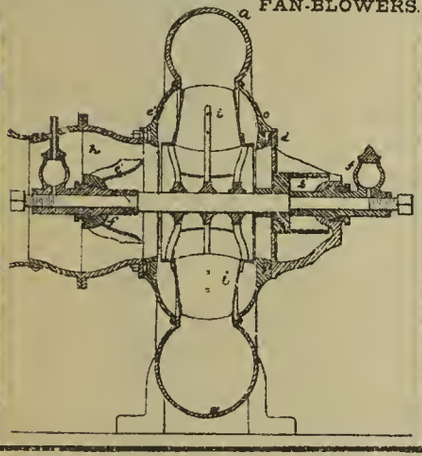


102,061, WILLIAM M. STUART. **ROOFING COMPOUND.**

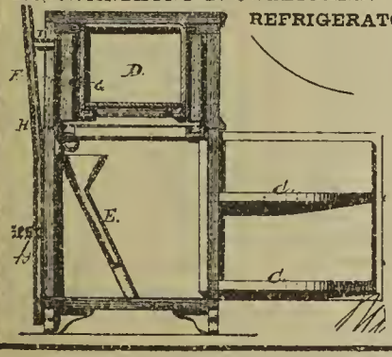
102,062, B. F. STURTEVANT. **BLOWERS.**



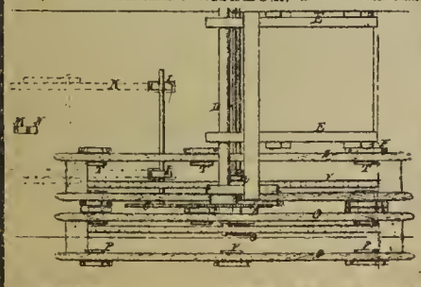
102,063, B. F. STURTEVANT. **FAN-BLOWERS.**



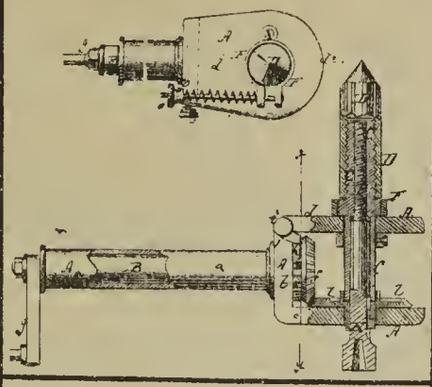
102,064, ANTHONY B. SWEETLAND. **REFRIGERATOR.**



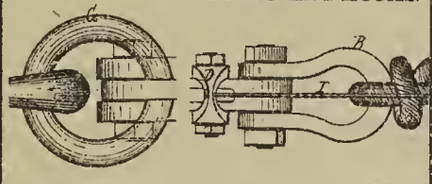
102,065, CHARLES TAYLOR. **SAW-MILLS.**



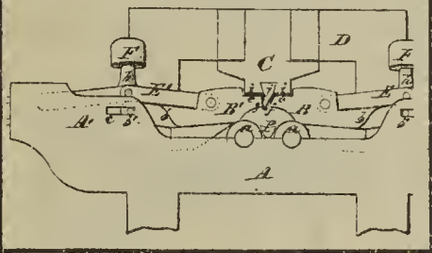
102,066, ALEX'R. THOMPSON. **DRILL**



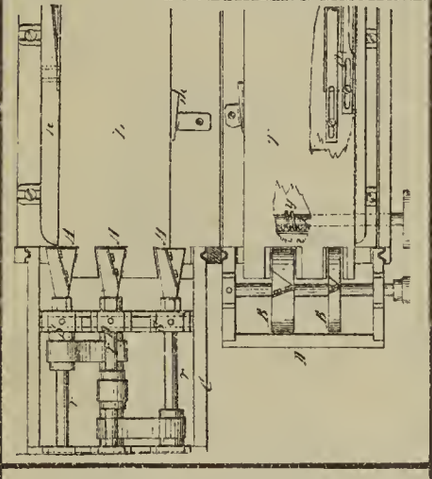
102,067, JOSEPH WOOD TUTTLE. JULIUS PETERSON. **DETACHING-HOOKS.**



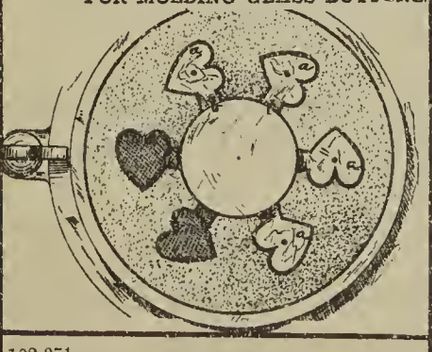
102,068, WM. VAN ANDEN. **MACHINE FOR MAKING WROUGHT-IRON CHAIRS FOR RAILROADS.**



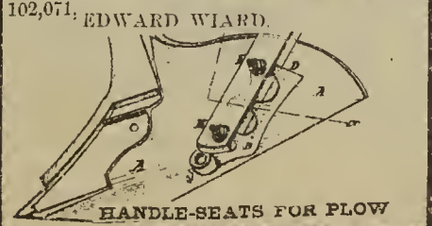
102,069, JAMES R. VAN EPPS. **DOVETAILING-MACHINE.**



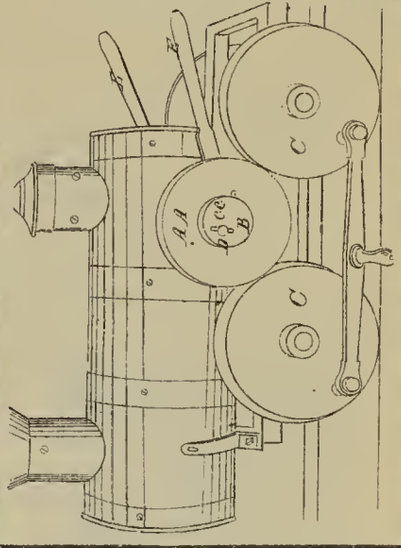
102,070, CHARLES VIGNERON. **MACHINE FOR MOLDING GLASS BUTTONS.**



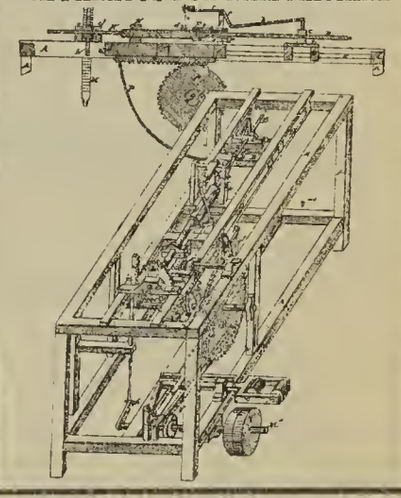
102,071, EDWARD WIARD. **HANDLE-SEATS FOR PLOW**



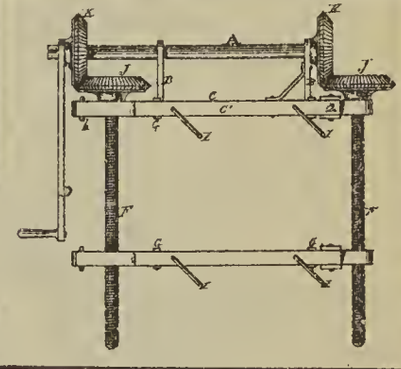
102,072, JOSEPH C. WILSON **LOCOMOTIVE AND CAR-BRAKES.**



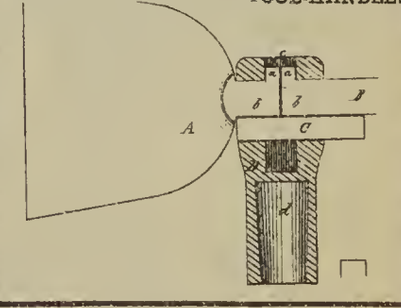
102,073, URIAH S. WOLFF. **FEEDING-APPARATUS FOR NAIL-MACHINE**



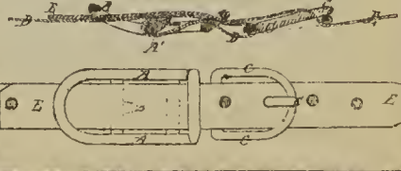
102,074, ALVIN N. WOODARD. **BELT-TIGHTENERS.**



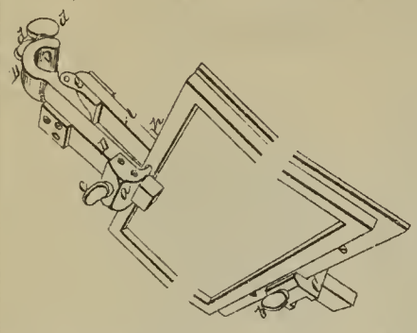
102,075, EDWIN L. ABERCROMBIE. **TOOL-HANDLES.**



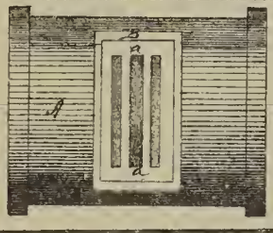
102,076, JOHN J. ADAIR. **BUCKLES.**



102,077, J. A. ADAMS. **ELECTROTYPING.**

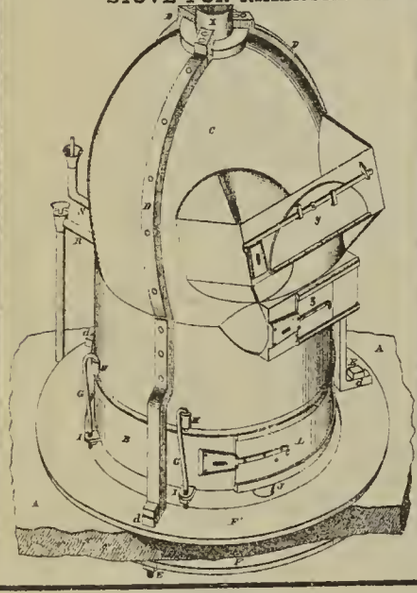


102,078, Q. S. BACKUS.
PROCESS FOR FACING VALVES AND VALVE-SEATS FOR STEAM-ENGINES.

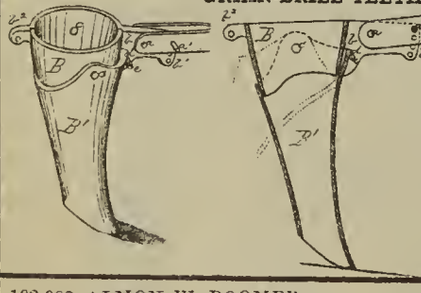


102,079, ALBERT BAXTER.
WHEEL-GEAR FOR CARRIAGES.

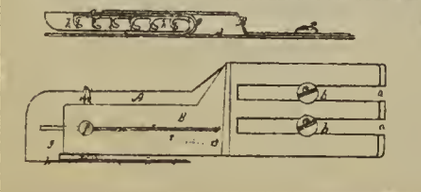
102,080, GAIN BEEMAN.
STOVE FOR RAILROAD CARS.



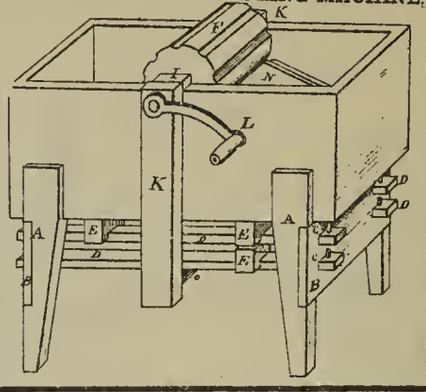
102,081, LYMAN BICKFORD.
GRAIN-DRILL TEETH.



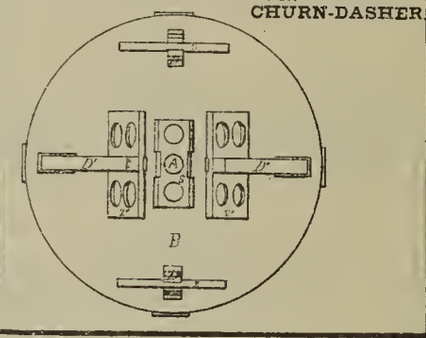
102,082, ALMON W. BOOMER.
JOHN P. HASKINS.
HEMMER FOR SEWING-MACHINE



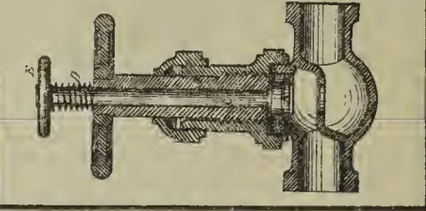
102,083, SAMUEL BRACKETT.
WASHING-MACHINE.



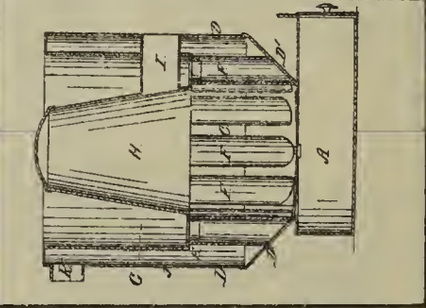
102,084, ISAAC BREWBAKER.
CHURN-DASHER.



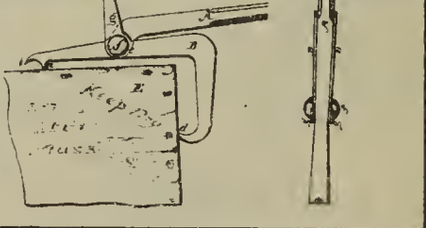
102,085, ISAAC W. BROWN.
GLOBE-VALVES.



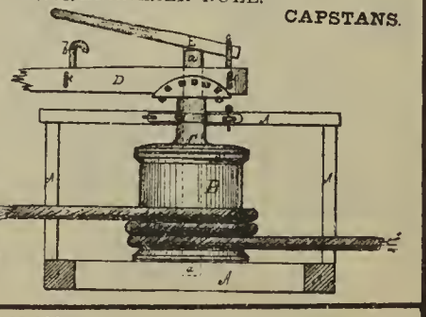
102,086, LORENZO W. BROWN.
HOT-AIR FURNACE.



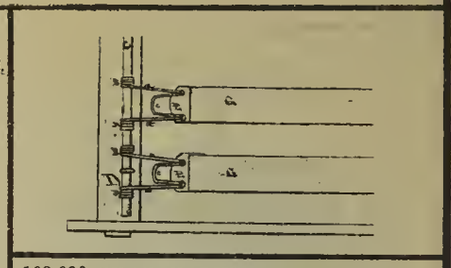
102,087, CHARLES BRUSO. **BOX-HOOK.**



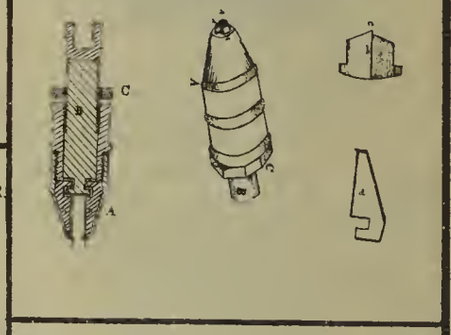
102,088, EBENEZER BUEL.
CAPSTANS.



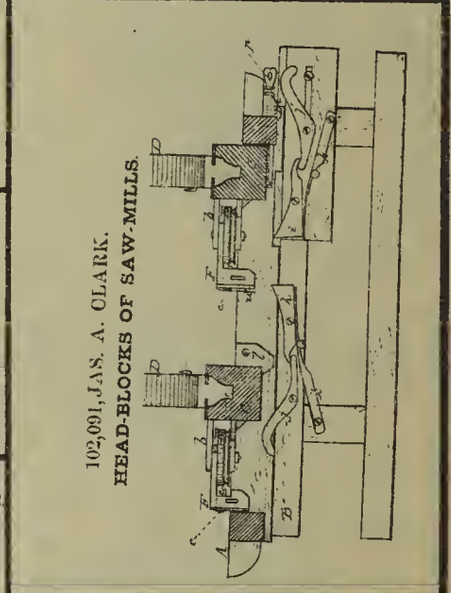
102,089, J. N. BULL.
SPRING-BED BOTTOM.



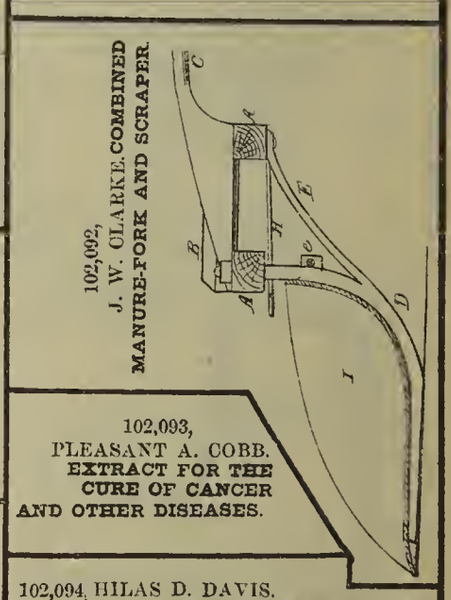
102,090, CHAS. E. BUTLER.
ADJUSTABLE HOLLOW DRILL.



102,091, JAS. A. CLARK.
HEAD-BLOCKS OF SAW-MILLS.

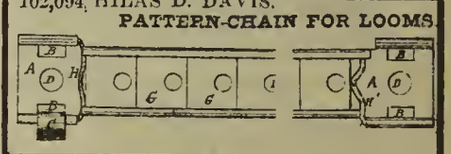


102,092,
J. W. CLARKE. **COMBINED MANURE-FORK AND SCRAPER.**

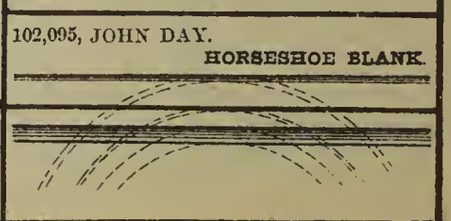


102,093,
PLEASANT A. COBB.
EXTRACT FOR THE CURE OF CANCER AND OTHER DISEASES.

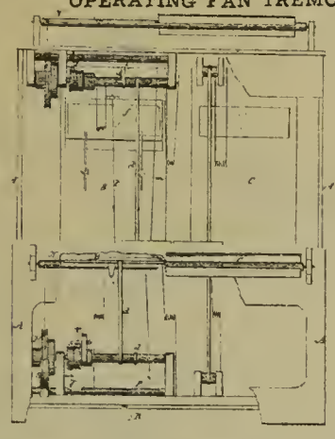
102,094, HILAS D. DAVIS.
PATTERN-CHAIN FOR LOOMS.



102,095, JOHN DAY.
HORSESHOE BLANK.

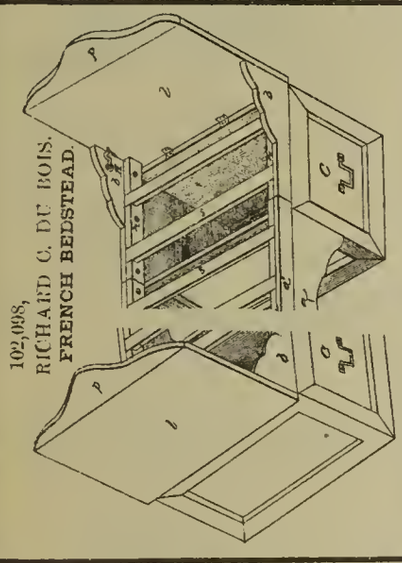


102,096, JOSEPH H. DOW.
OPERATING FAN TREMOLOS.

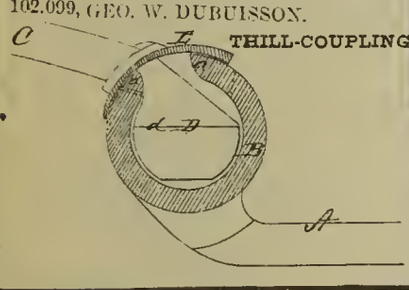


102,097 NELSON H. DOWNS.
CONCRETE PAVEMENTS.

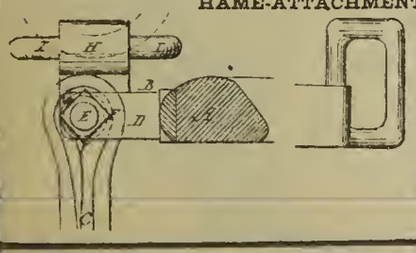
102,098, RICHARD C. DU BOIS.
FRENCH BEDSTEAD.



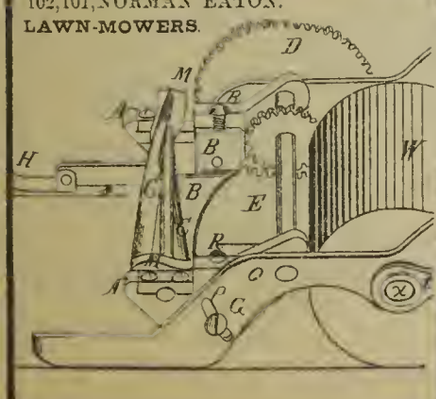
102,099, GEO. W. DUBUISSON.
THILL-COUPLING.



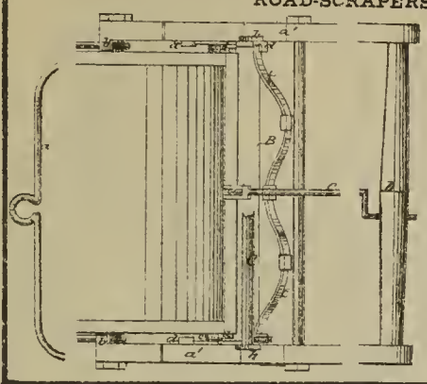
102,100, CHAS. H. EASTE.
HAME-ATTACHMENT.



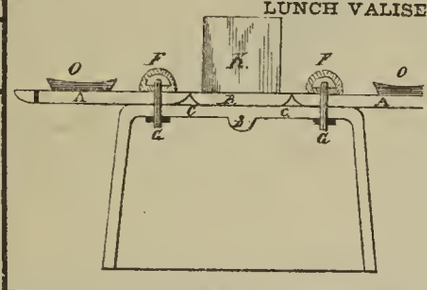
102,101, NORMAN EATON.
LAWN-MOWERS.



102,102. JAMES C. EVANS.
ROAD-SCRAPERS.

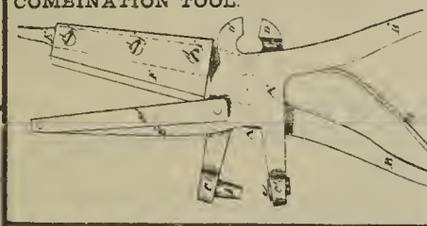


102,103. SIGMUND FEUST.
LUNCH VALISE.

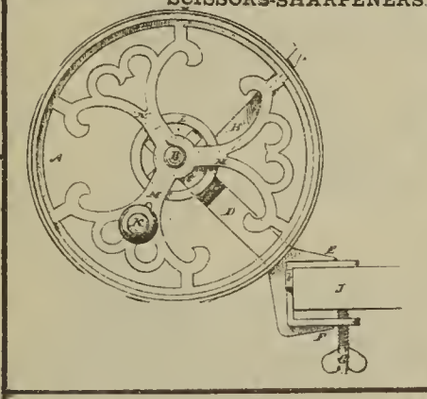


102,104, JAMES B. FORSYTH.
JOHN J. HALEY.
ELASTIC ROLLS.

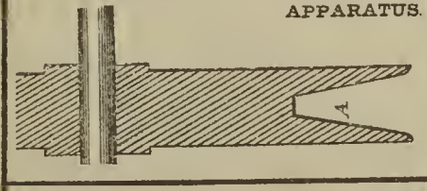
102,105. C. A. FOSTER.
COMBINATION TOOL.



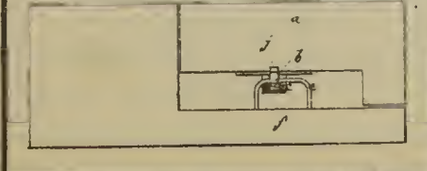
102,106, CALVIN A. FOSTER.
SCISSORS-SHARPENERS.



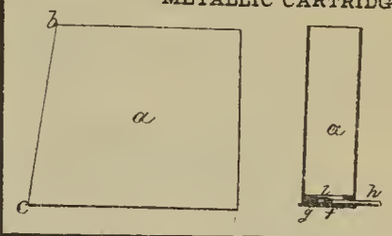
102,107, JAMES S. FRENCH.
WHEEL FOR LOCOMOTIVE LAND CONVEYANCE, AND COAL-HOISTING APPARATUS.



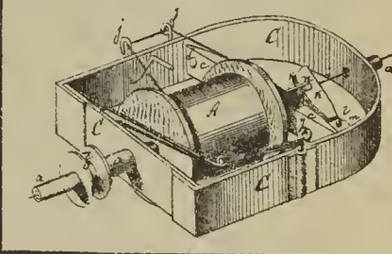
102,108. F. W. FROST.
SHUTTER-FASTENERS.



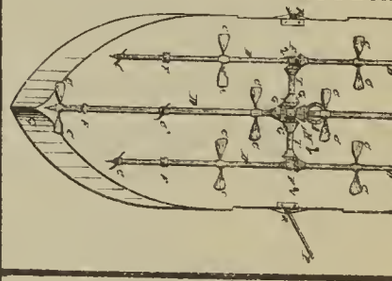
102,109. A. N. C. GAVARD.
METALLIC CARTRIDGES.



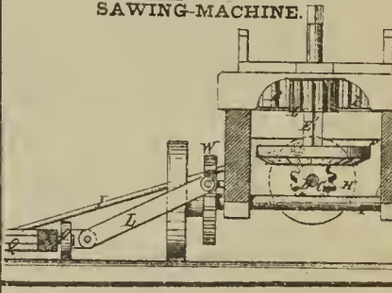
102,110, A. GIRAUDAT.
WIRE-COVERING MACHINES.



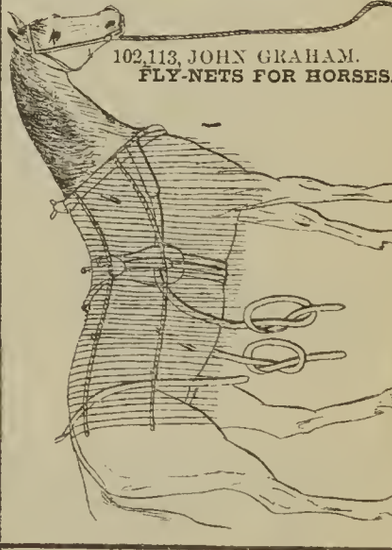
102,111, EDWARD D. GIRD.
SCREW PROPULSION FOR TUG-BOATS.



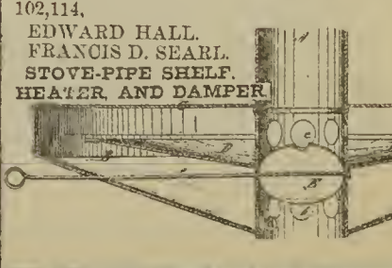
102,112, A. GOODMAN.
H. GOODMAN.
SAWING-MACHINE.



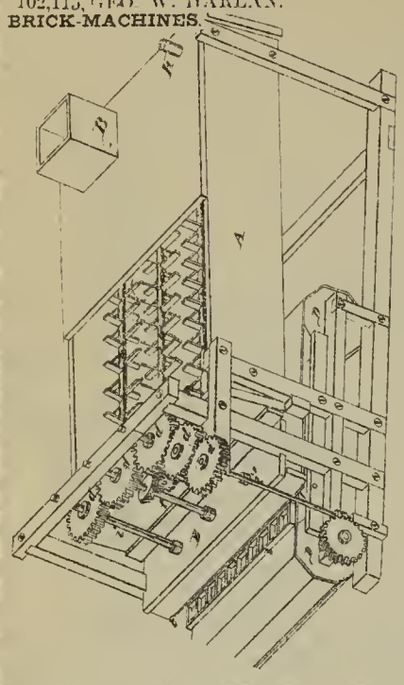
102,113, JOHN GRAHAM.
FLY-NETS FOR HORSES.



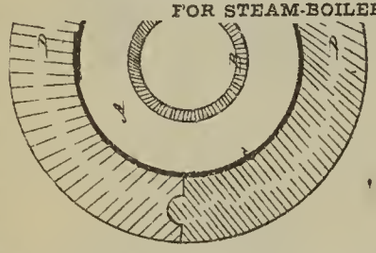
102,114,
EDWARD HALL.
FRANCIS D. SEARL.
STOVE-PIPE SHELF, HEATER, AND DAMPER.



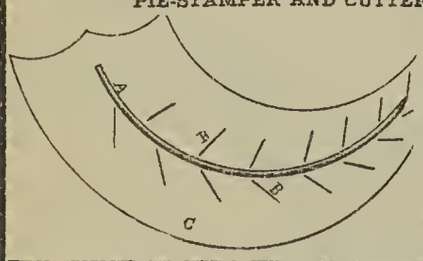
102,115, GEO. W. HARLAN.
BRICK-MACHINES.



102,116, WASHINGTON HARRIS.
WILLIAM HOWELL.
NON-CONDUCTING COVERING FOR STEAM-BOILERS.

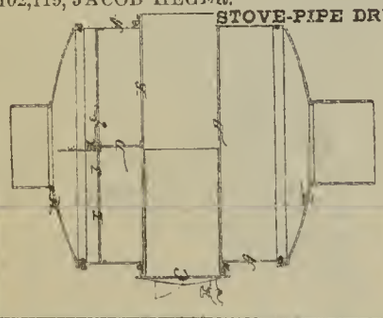


102,117, ALLEN HAWKES.
PIE-STAMPER AND CUTTER.

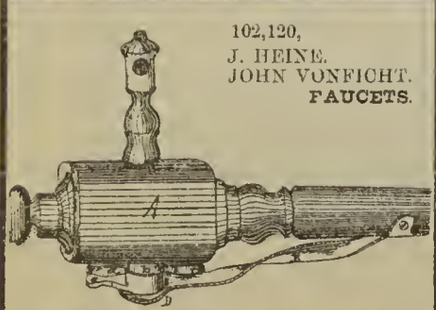


102,118, E. B. HECKEL. **MINERAL PAINT.**

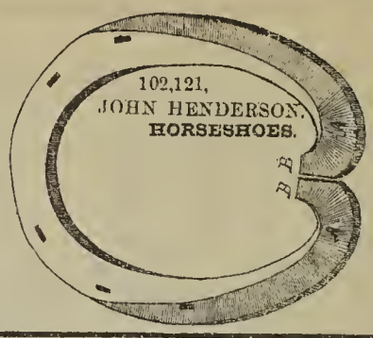
102,119, JACOB HEGER.
STOVE-PIPE DRUM.



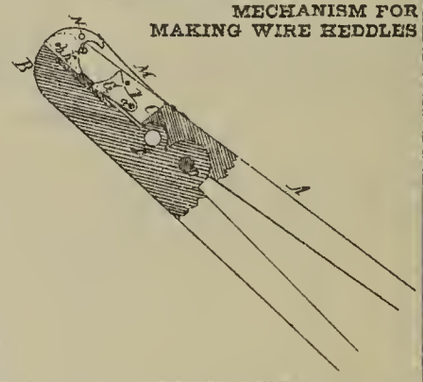
102,120,
J. HEINE.
JOHN VONFICHT.
FAUCETS.



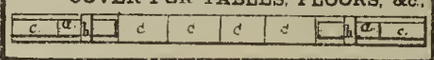
102,121,
JOHN HENDERSON.
HORSESHOES.



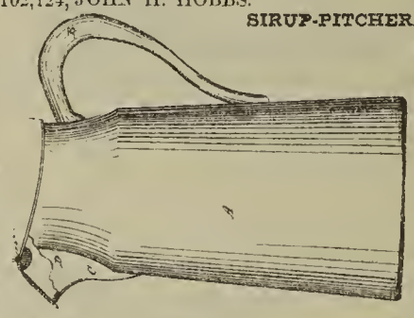
102,122, EMIL T. HERTLE.
RICHARD THOMPSON.
MECHANISM FOR MAKING WIRE HEDDLES



102,123, AUGUST HERZOG.
COVER FOR TABLES, FLOORS, &c.

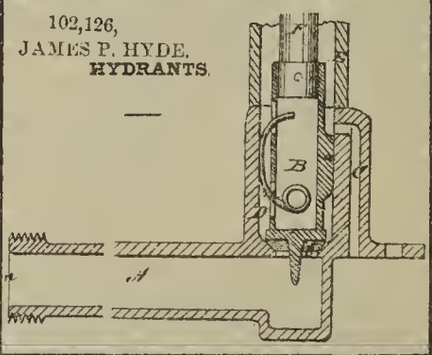


102,124, JOHN H. HOBBS.
SIRUP-PITCHER.

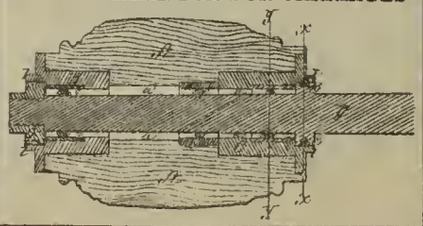


102,125, JOH. HOF.
PHILIPP BRENNEIS.
HINGES FOR SHUTTERS.

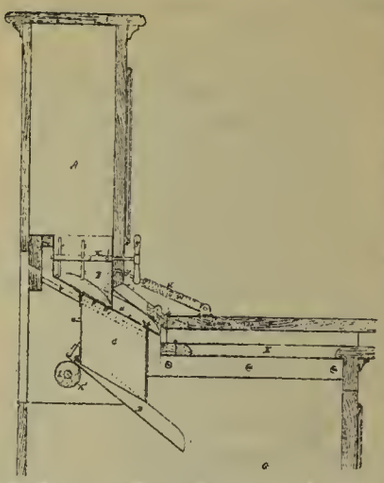
102,126,
JAMES P. HYDE.
HYDRANTS.



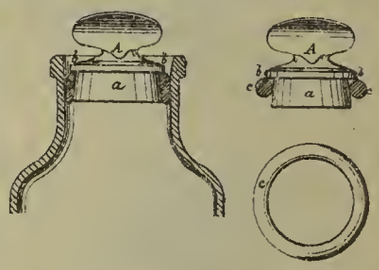
102,127, DAVID JEWETT.
AXLE-BOX FOR CARRIAGES



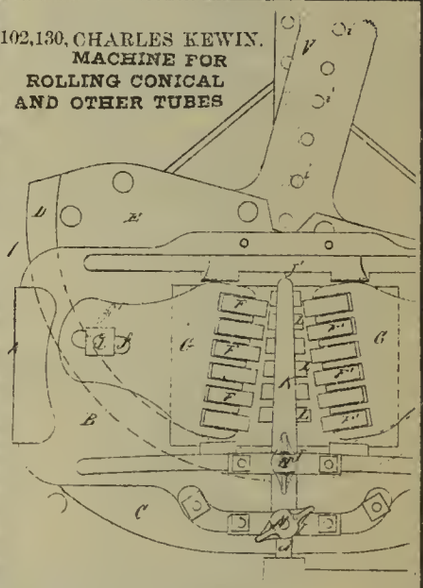
102,128, **EARTH CLOSETS.**
GEORGE BAKER JEWETT.



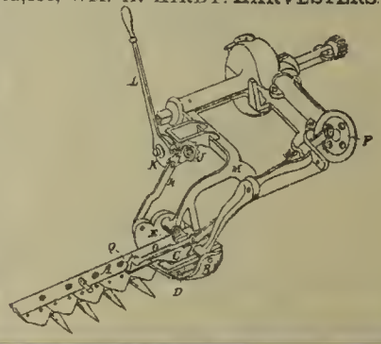
102,129, HENRY W. KETCHAM.
STOPPERS FOR JARS AND BOTTLES.



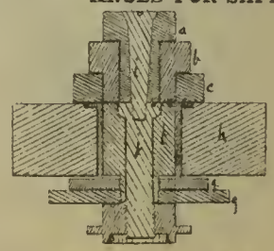
102,130, CHARLES KEWIN.
MACHINE FOR ROLLING CONICAL AND OTHER TUBES



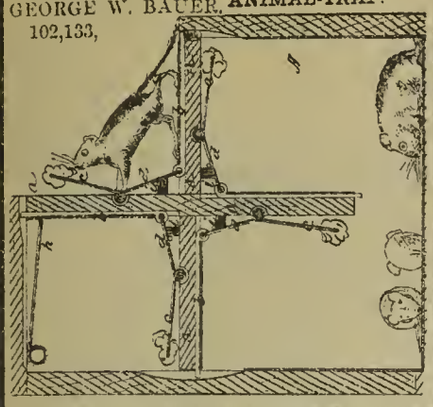
102,131, WM. A. KIRBY. **HARVESTERS.**



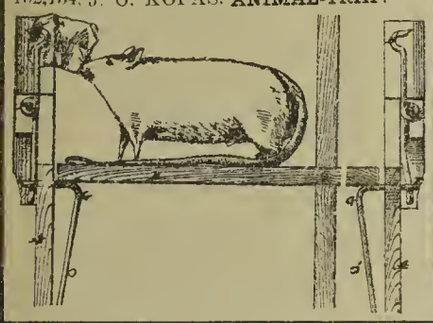
102,132, JOSEPH G. KITTREDGE.
KNOBS FOR SAFE-DOORS.



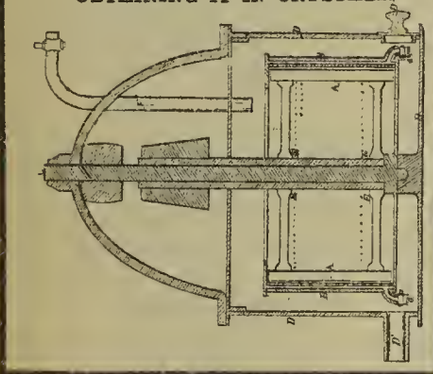
J. O. KOPAS.
GEORGE W. BAUER. ANIMAL-TRAP.
102,133,

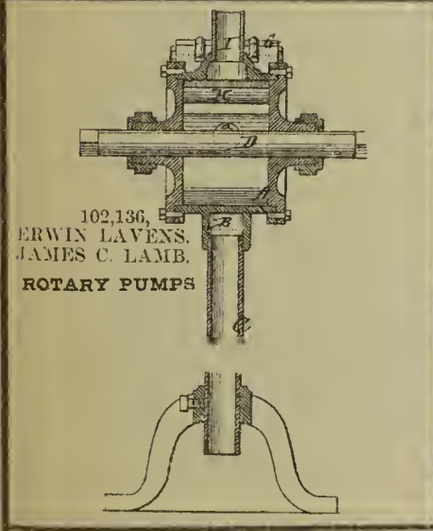


102,134. J. O. KOPAS. ANIMAL-TRAP.



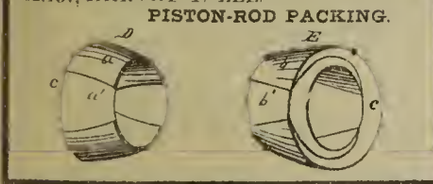
102,135, FREDERICK LAMBE.
TREATING PARAFFINE AND OBTAINING IT IN CRYSTALS.



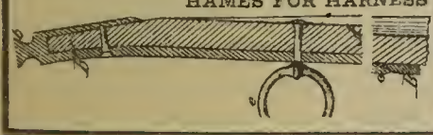


102,136,
ERWIN LAVENS.
JAMES C. LAMB.
ROTARY PUMPS

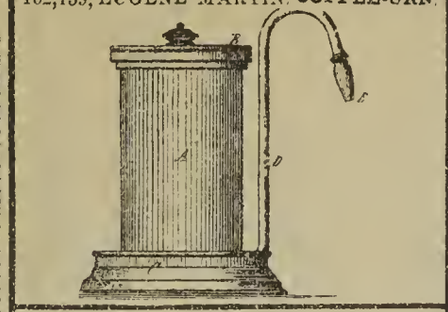
102,137, HARVEY T. LEE.
PISTON-ROD PACKING.



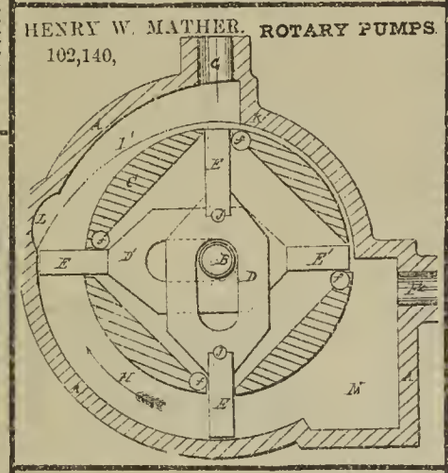
102,138. JOSIAH LETCHWORTH
HAMES FOR HARNESS



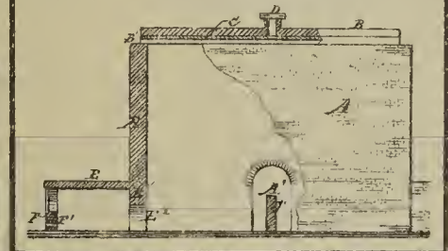
102,139, EUGENE MARTIN. COFFEE-URN.



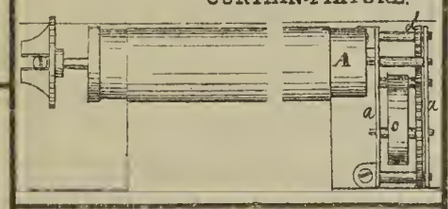
HENRY W. MATHER. ROTARY PUMPS.
102,140,



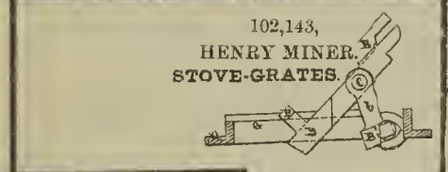
102,141, W. T. MATHEWS. BRICK-KILNS.



102,142, FERDINAND C. D. McKAY.
SELF-WINDING AND BALANCING CURTAIN-FIXTURE.

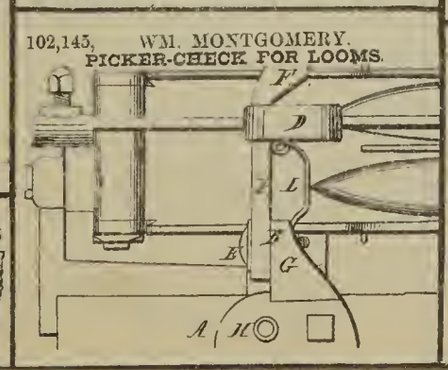


102,143,
HENRY MINER.
STOVE-GRATES.



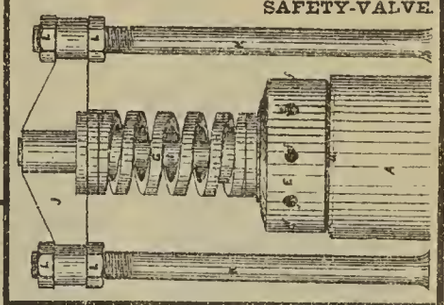
DAVID MOFFAT.
JOHN THOMSON.
102,144, PAVING-BRICKS.

102,145, WM. MONTGOMERY.
PICKER-CHECK FOR LOOMS.

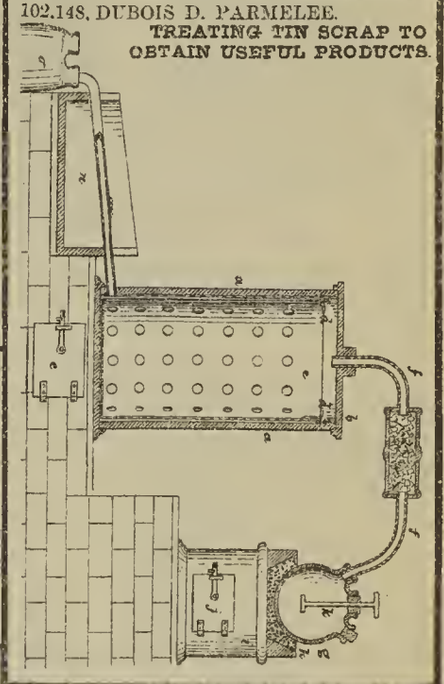


102,146, CHARLES MOTIER NES.
MANUFACTURE OF STEEL.

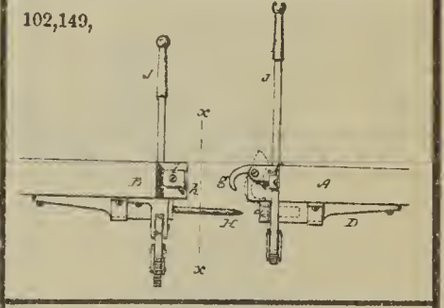
102,147, HENRY J. PAINE.
SAFETY-VALVE.



102,148, DUBOIS D. PARMELEE.
TREATING TIN SCRAP TO OBTAIN USEFUL PRODUCTS.



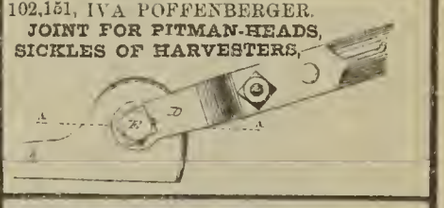
W. B. PARSONS. CAR-COUPLINGS.
102,149,



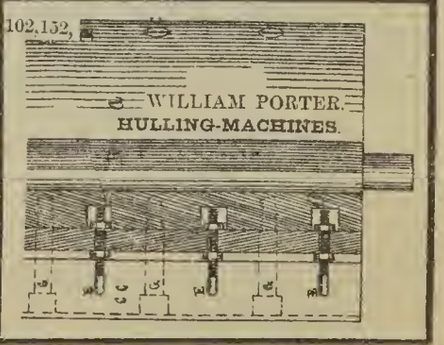
GEORGE PERRY.
102,150.

DOUBLE-SHOVEL PLOWS.

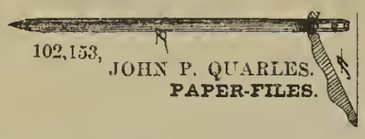
102,151, IVA POFFENBERGER.
JOINT FOR PITMAN-HEADS, SICKLES OF HARVESTERS,



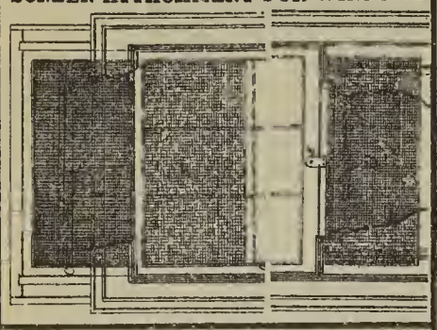
102,152,
WILLIAM PORTER.
HULLING-MACHINES.



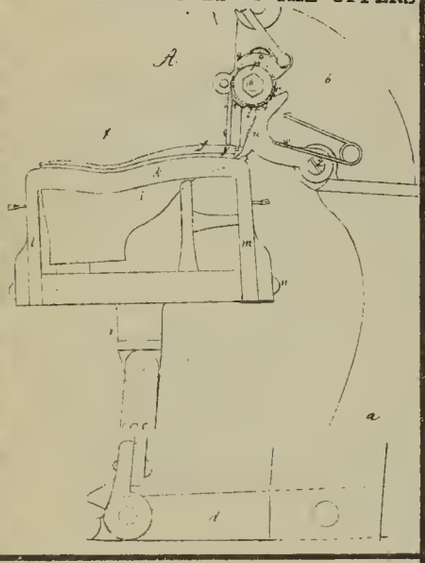
102,153, JOHN P. QUARLES.
PAPER-FILES.



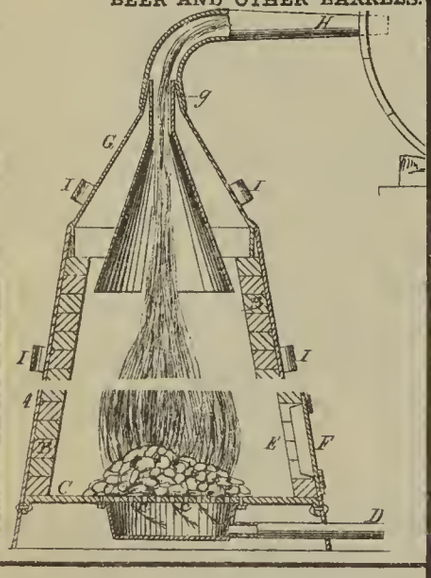
102,154, GEO. REED.
WILLIAM C. HOAGLAND.
JOHN J. NEWSOM.
SCREEN-ATTACHMENT FOR WINDOWS.



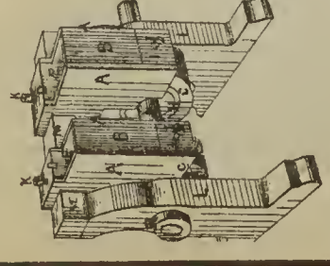
102,155, T. K. REED.
MACHINE FOR UNITING BOOT AND SHOE-SOLES TO THE UPPERS



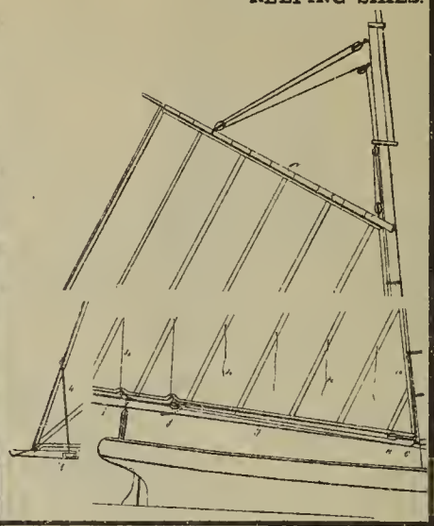
102,156, HERMANN REUTTI.
PHILIPP WINKELHAUS.
APPARATUS FOR PITCHING BEER AND OTHER BARRELS.



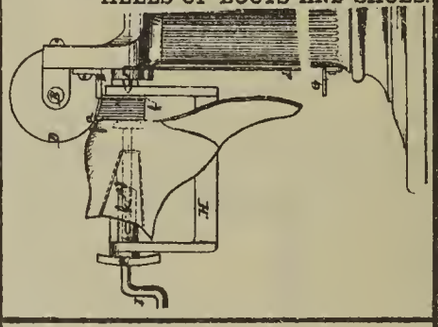
102,157, ISRAEL L. G. RICE.INKING APPARATUS FOR COLOR-PRINTING.



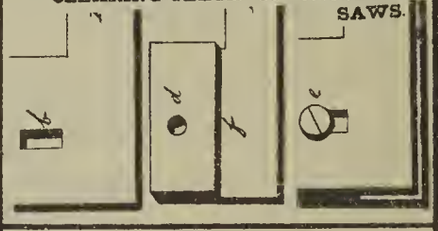
102,158 NATHANIEL WILEY RICH.
APPARATUS FOR REEFING SAILS.



102,159, EVERETT P. RICHARDSON.
MACHINES FOR TRIMMING THE HEELS OF BOOTS AND SHOES.

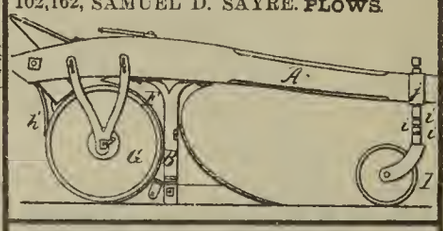


102,160, JOHN H. ROBSON.
MACHINE FOR JOINTING THE CLEARING-TEETH OF CROSSCUT-SAWS.

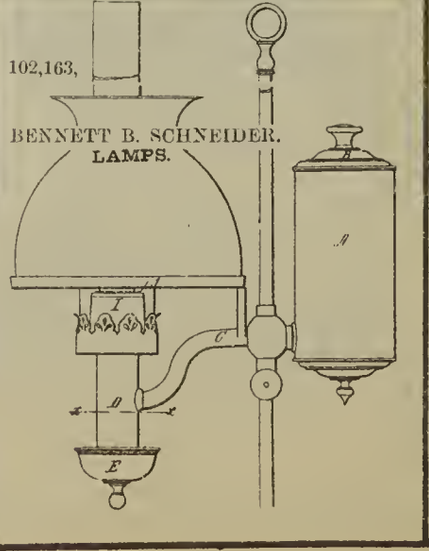


102,161.JOHN B. RODGERS.
RHEUMATISM AND OTHER DISEASES COMPOUND TO BE USED IN TREATING

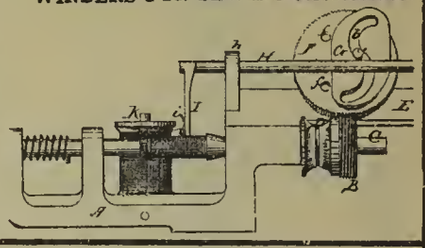
102,162, SAMUEL D. SAYRE. PLOWS.



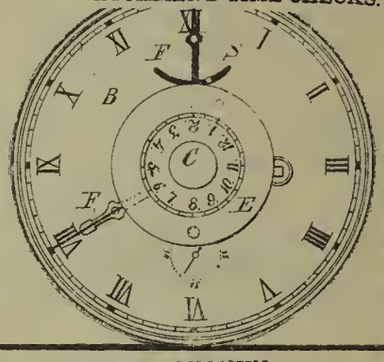
102,163,
BENNETT B. SCHNEIDER.
LAMPS.



102,164, THOMAS SHANKS. BOBBIN-WINDERS FOR SEWING-MACHINES.

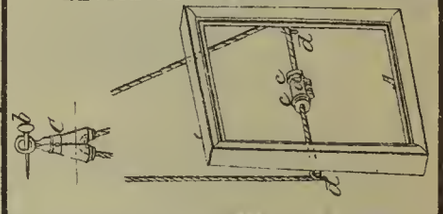


102,165, DAVID SHIVE.
WATCHMEN'S TIME-CHECKS.

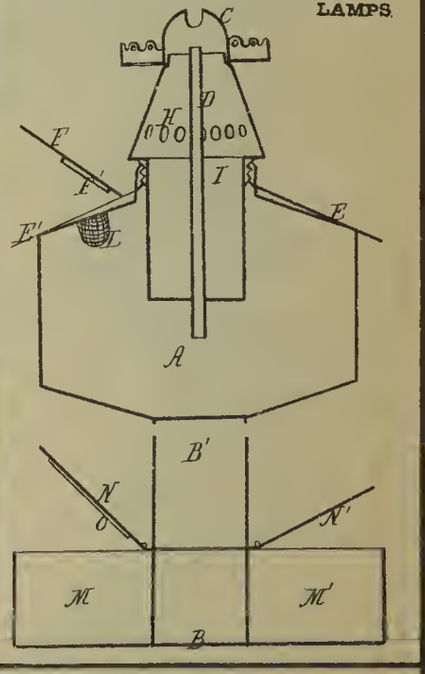


102,166, CHS. F. A. SIMONIN.
EDWARD W. COFFIN.
CLEANING WOOL AND HAIR.

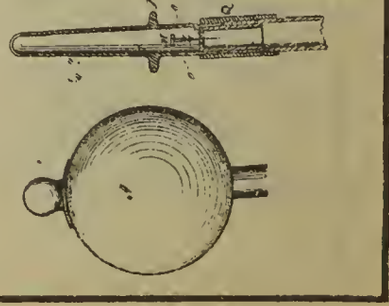
102,167, CORELLI W. SIMPSON.
DEVICE FOR HANGING PICTURES.



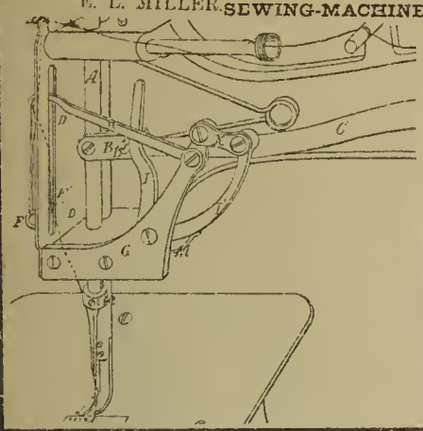
102,168, FRANCIS VANVOST SLEETH.
LAMPS.



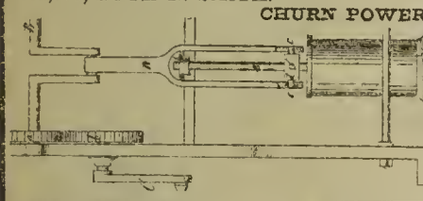
102,169. CHAS. E. SMITH.
HENRY J. RICE.
VAPOR-BURNERS.



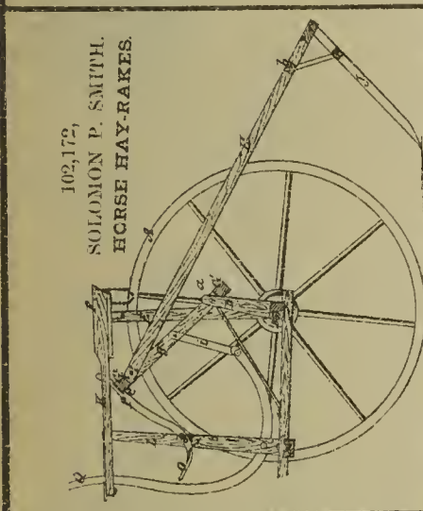
102,170, G. A. SMITH, E. L. MILLER. SEWING-MACHINE.



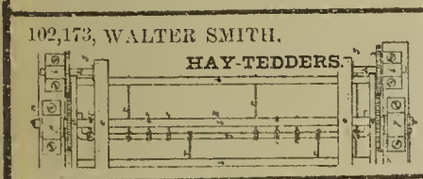
102,171, RUTH N. SMITH. CHURN POWER.



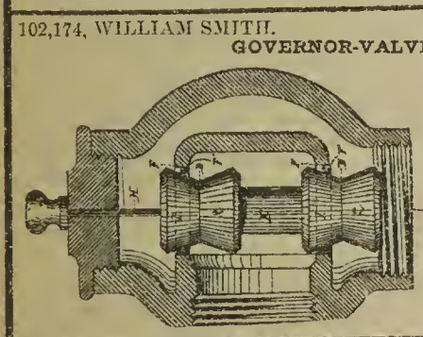
102,172, SOLOMON P. SMITH. HORSE HAY-RAKES.



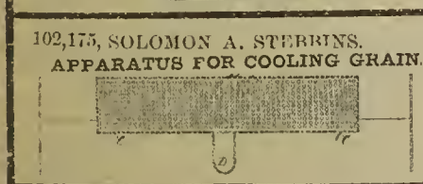
102,173, WALTER SMITH. HAY-TEDDERS.



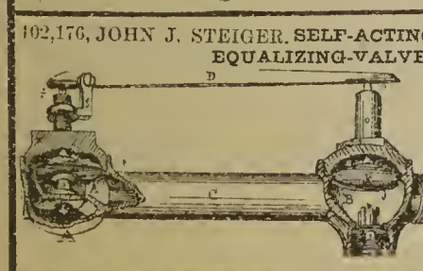
102,174, WILLIAM SMITH. GOVERNOR-VALVE.



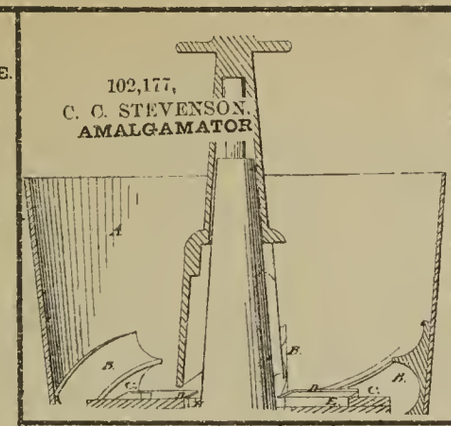
102,175, SOLOMON A. STEBBINS. APPARATUS FOR COOLING GRAIN.



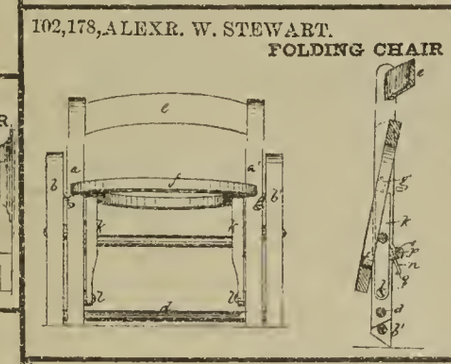
102,176, JOHN J. STEIGER. SELF-ACTING EQUALIZING-VALVES.



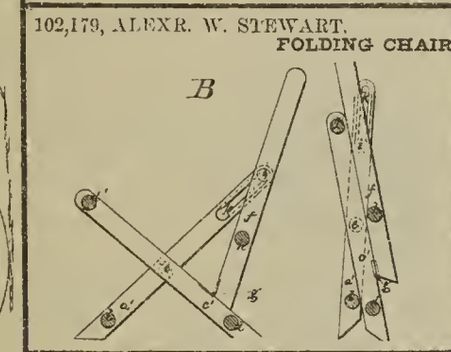
102,177, C. C. STEVENSON. AMALGAMATOR.



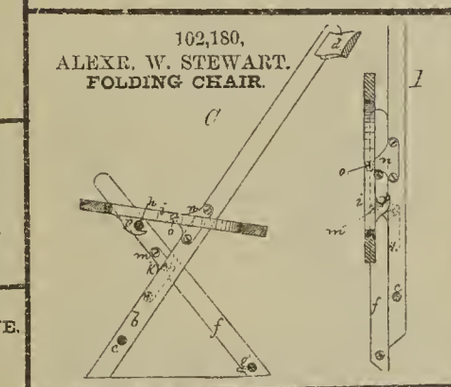
102,178, ALEXR. W. STEWART. FOLDING CHAIR.



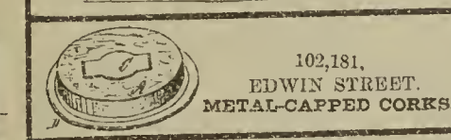
102,179, ALEXR. W. STEWART. FOLDING CHAIR.



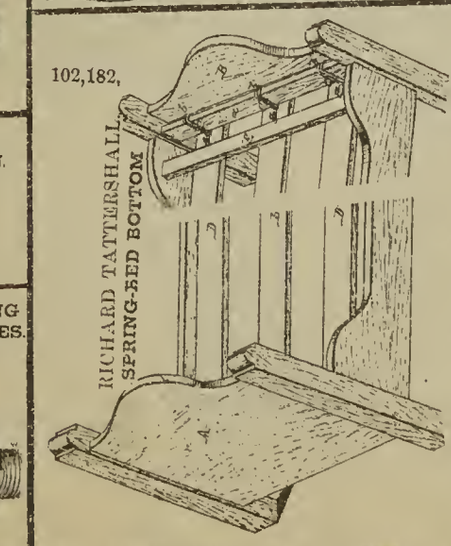
102,180, ALEXR. W. STEWART. FOLDING CHAIR.



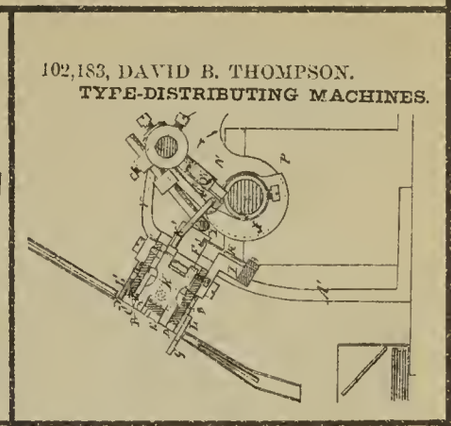
102,181, EDWIN STREET. METAL-CAPPED CORKS.



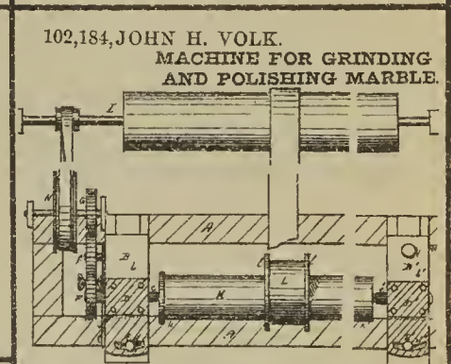
102,182, RICHARD TATTERSHALL. SPRING-BED BOTTOM.



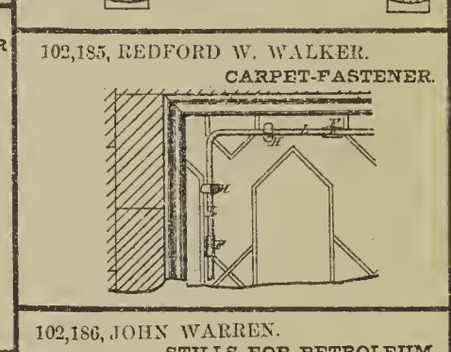
102,183, DAVID B. THOMPSON. TYPE-DISTRIBUTING MACHINES.



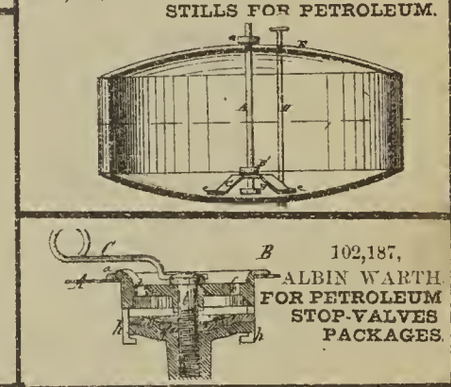
102,184, JOHN H. VOLK. MACHINE FOR GRINDING AND POLISHING MARBLE.



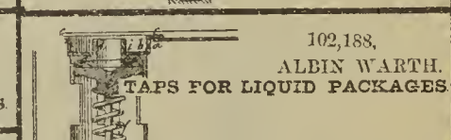
102,185, REDFORD W. WALKER. CARPET-FASTENER.



102,186, JOHN WARREN. STILLS FOR PETROLEUM.



102,187, ALBIN WARTH. FOR PETROLEUM STOP-VALVES PACKAGES.



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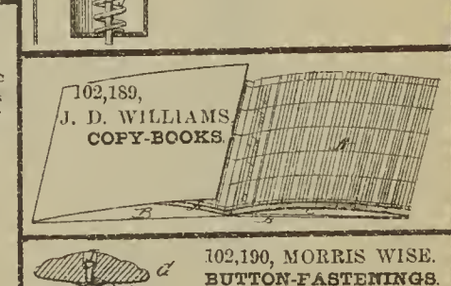

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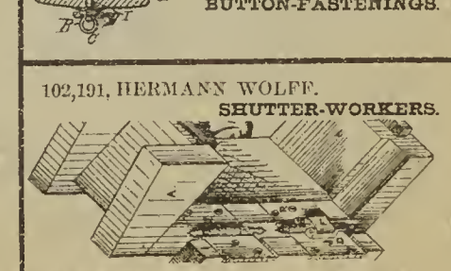
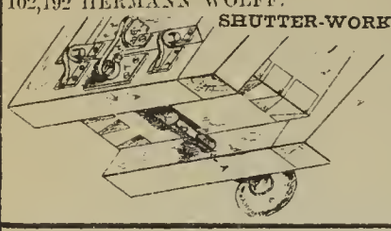


102,190, MORRIS WISE. BUTTON-FASTENINGS.

102,191, HERMANN WOLFF. SHUTTER-WORKERS.

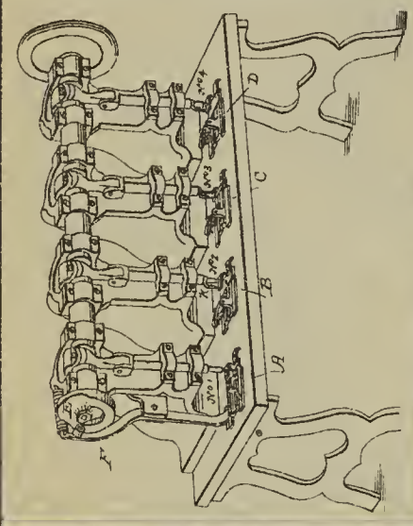
102,192 HERMANN WOLFF.
SHUTTER-WORKER.



102,193 J. H. WOOD.
ARTIFICIAL TEETH.

102,194, ALLEN YOUNG.
MEDICINE FOR COUGHS AND COLDS.

102,195, SOLOMON W. YOUNG.
MACHINE FOR FORMING AND CUTTING EYELETS AND FOR THE PREPARATION OF STOCK FOR THE SAME.



102,196, H. W. CROTZER.
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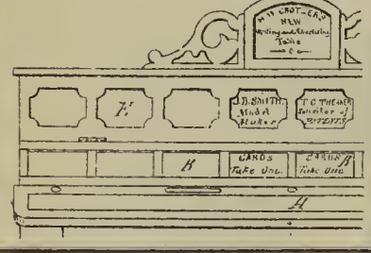

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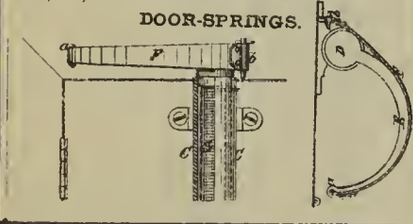
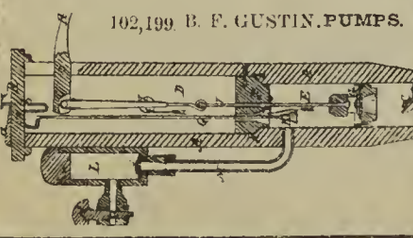
DOOR-SPRINGS.



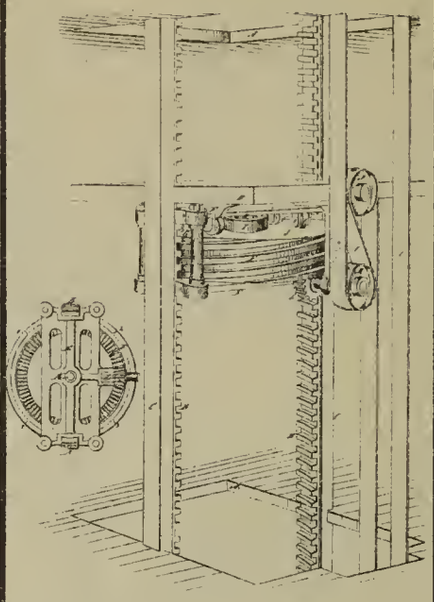
102,198, JOHN L. DUFFEE.
BRONZING AND GILDING.

102,199 B. F. GUSTIN. PUMPS.



3,921, RUDOLPH D'HEUREUSE.
TREATING ORGANIC MATERIALS WITH AIR.

3,922. WILLIAM MILLER.
HOISTING-MACHINE.



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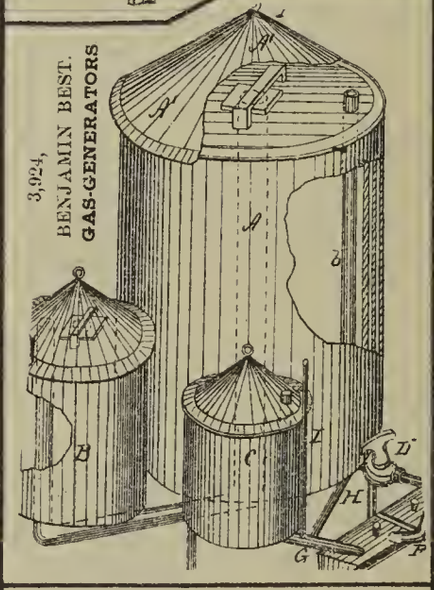
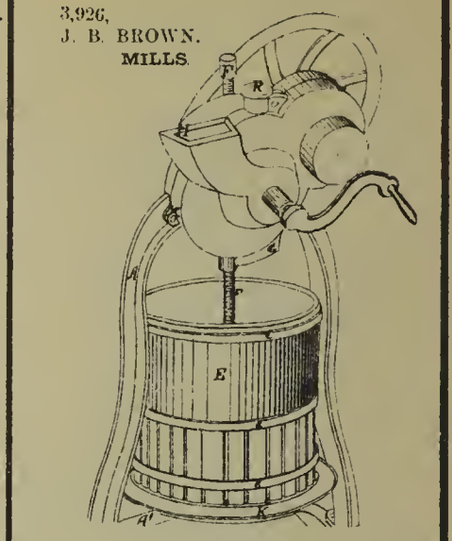
G. B. TURNER.
GRAIN-SEPARATOR.

3,924,
BENJAMIN BEST.
GAS-GENERATORS.

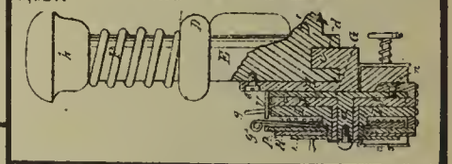


3,925. J. B. BROWN. MILLS.

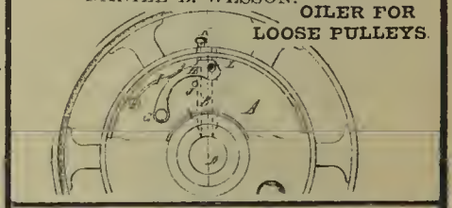
3,926,
J. B. BROWN.
MILLS.



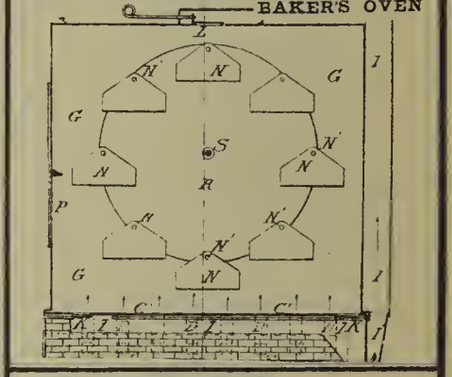
3,927. B. B. HILL HAND-STAMPS.



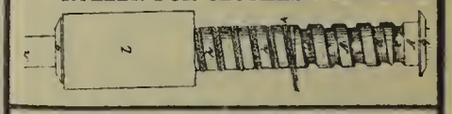
3,928, CHARLES A. KING.
DANIEL B. WESSON.
OILER FOR LOOSE PULLEYS.



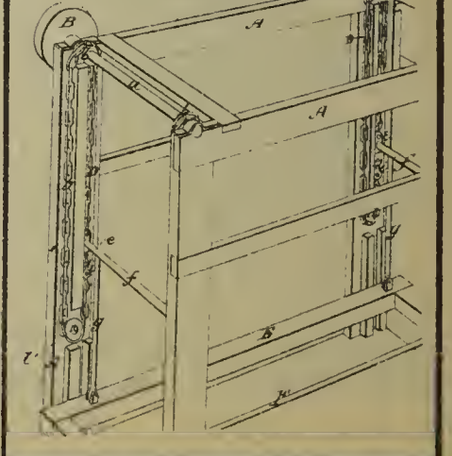
3,929, M. A. E. McKENZIE.
BAKER'S OVEN.



3,930, LYMAN A. COOK,
ROLLER FOR CLOTHES-WRINGERS.



3,931, P. J. TORNEY.
C. W. HAYDEN.
JNO. L. KIDWELL.
MACHINE FOR SAWING MARBLE.



ILLUSTRATIONS OF PATENTS

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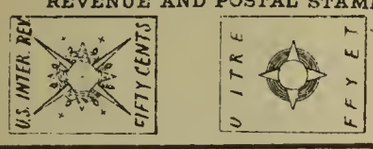
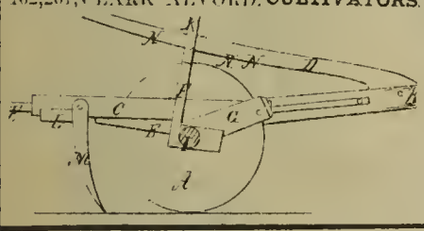
APRIL 26, 1870.

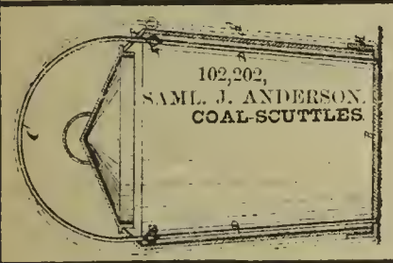
102,200, LEWIS ABRAHAM. **REVENUE AND POSTAL STAMPS.**



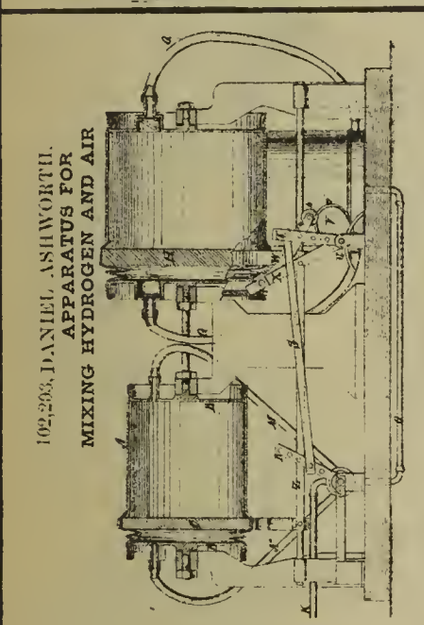
102,201, CLARK ALVORD. **CULTIVATORS.**



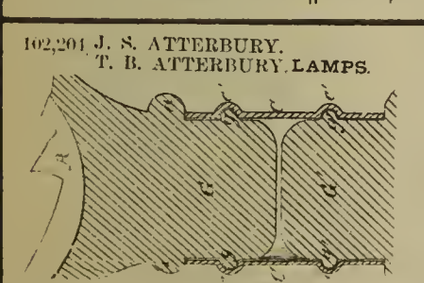
102,202, SAML. J. ANDERSON. **COAL-SCUTTLES.**



102,203, DANIEL ASHWORTH. **APPARATUS FOR MIXING HYDROGEN AND AIR**



102,204, J. S. ATTERBURY, T. B. ATTERBURY. **LAMPS.**

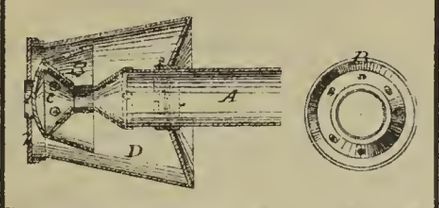


102,205 W. H. BALMAIN **CONCENTRATING OIL OF VITRIOL.**

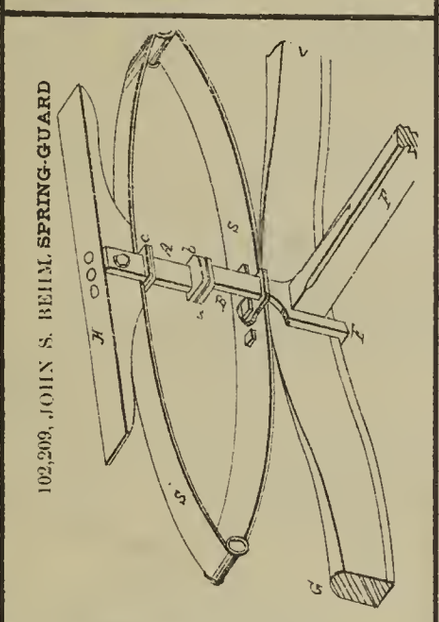
102,206, WILLIAM HENRY BALMAIN. **MODE OF STORING AND TRANSPORTING OIL OF VITRIOL**

102,207 SUSPENDED

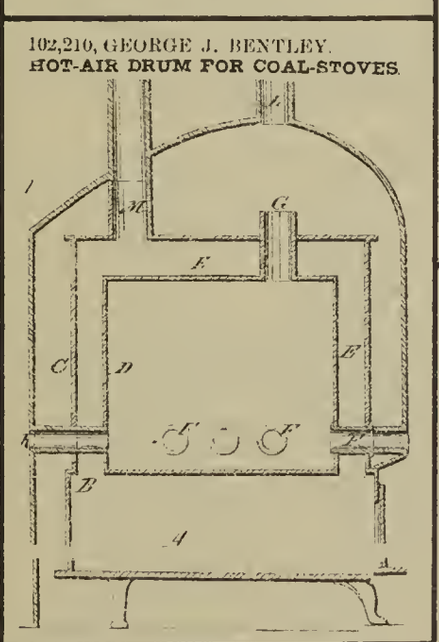
102,208, CHAS. E. BARLOW. **CHIMNEY-COWL.**



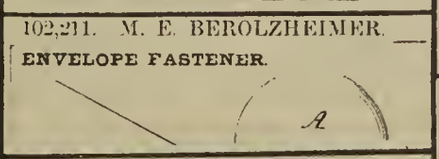
102,209, JOHN S. BEHM. **SPRING-GUARD**



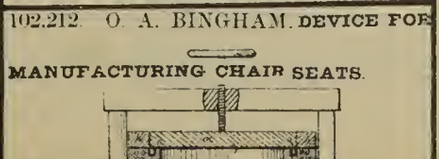
102,210, GEORGE J. BENTLEY. **HOT-AIR DRUM FOR COAL-STOVES.**

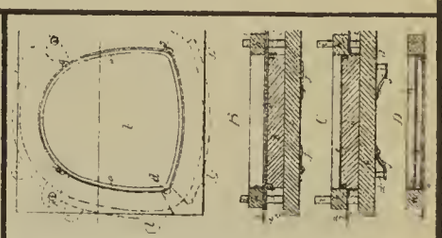


102,211. M. E. BEROLZHEIMER. **ENVELOPE FASTENER.**

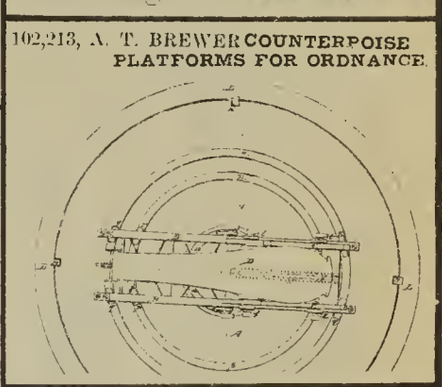


102,212. O. A. BINGHAM. **DEVICE FOR MANUFACTURING CHAIR SEATS.**

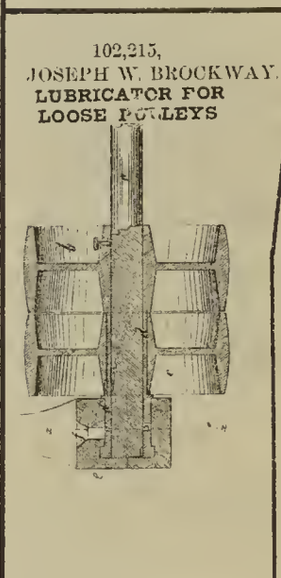




102,213, A. T. BREWER **COUNTERPOISE PLATFORMS FOR ORDNANCE.**

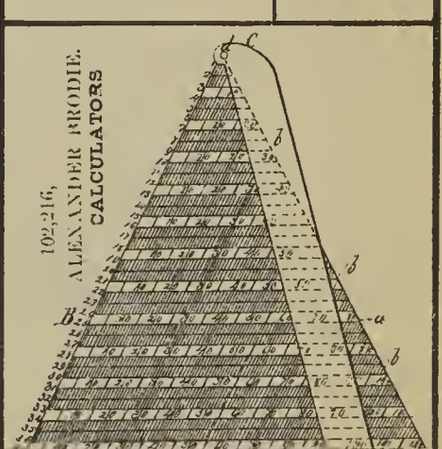


102,215, JOSEPH W. BROCKWAY. **LUBRICATOR FOR LOOSE PULLEYS**

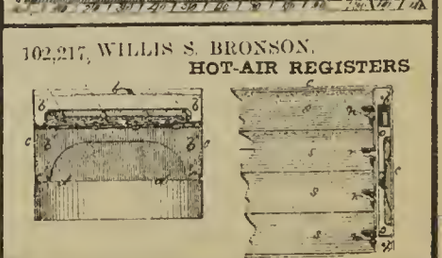


102,214, A. T. BREWER. **RAMMER-STAVES.**

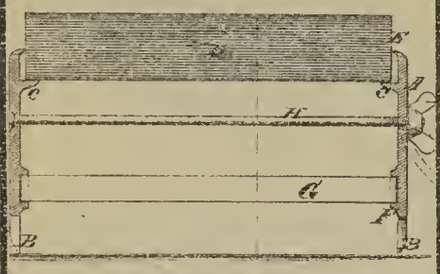
102,216, ALEXANDER BRODIE. **CALCULATORS**



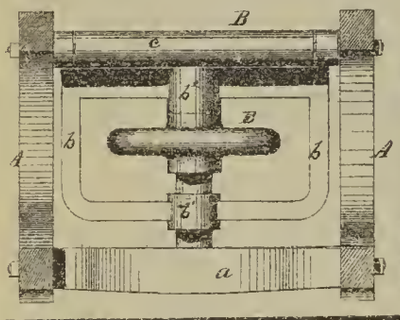
102,217, WILLIS S. BRONSON. **HOT-AIR REGISTERS**



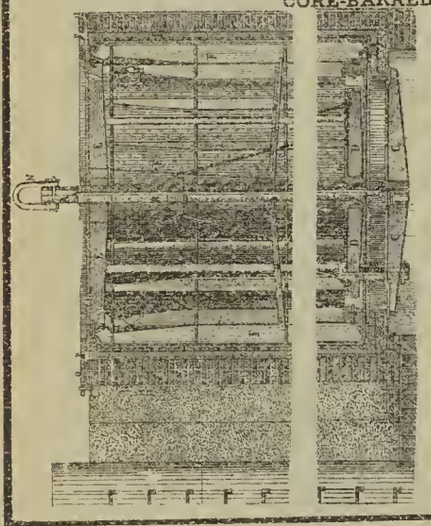
102,218. H. BROWN.
OIL STONE HOLDER.



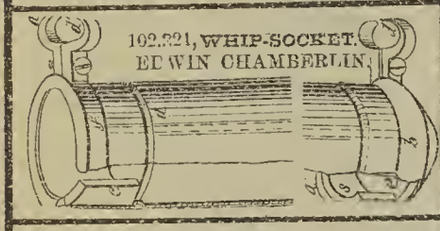
102,219, TIMOTHY L. CARLEY, MILTON BROUGHTON.
PLANING-MACHINE.



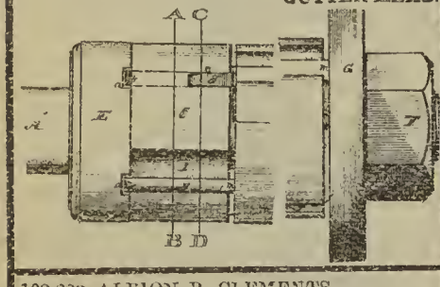
102,220. ROBT. CARTWRIGHT.
CORE-BARREL.



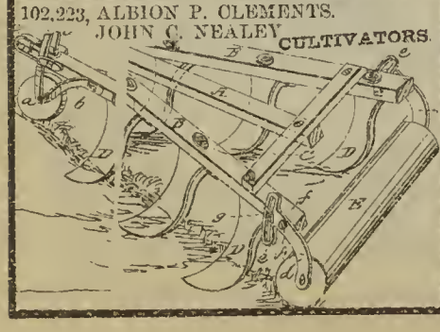
102,221, WHIP-SOCKET.
EDWIN CHAMBERLIN.



102,222, MILTON W. CLARK.
CUTTER-HEAD.

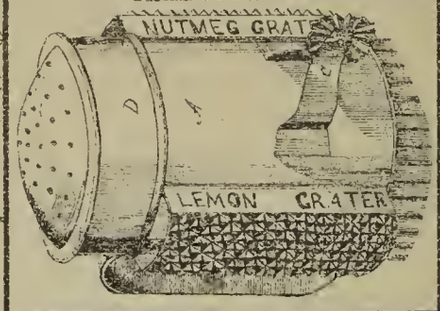


102,223, ALBION P. CLEMENTS, JOHN C. NEALEY.
CULTIVATORS.

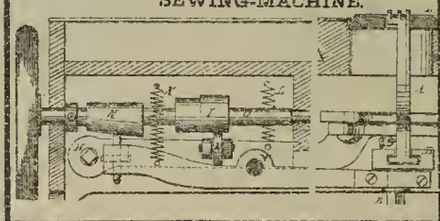


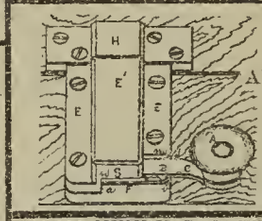
102,224, THOMAS COMBS. OINTMENT.

102,225, SYDNEY COOKE. DREDGE-BOX, CAKE-CUTTER AND GRATER.



102,226, WILLIAM COONEY.
SEWING-MACHINE.

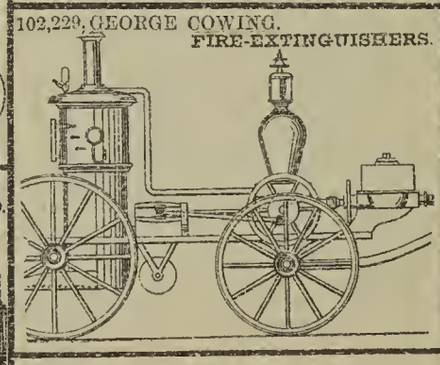




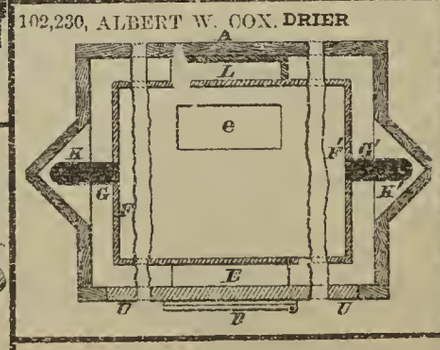
102,227, ALBERT COOPER.
SASH-LOCKS.

102,228, HENRY C. COTTRELL.
VENTILATED RUBBER BOOT.

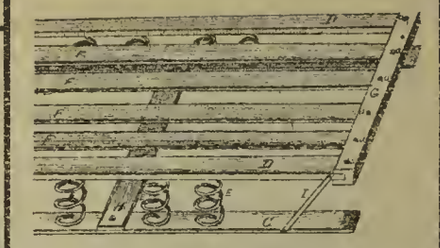
102,229, GEORGE COWING.
FIRE-EXTINGUISHERS.



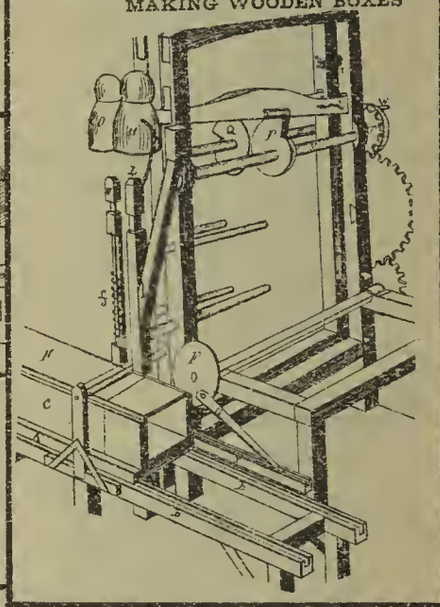
102,230, ALBERT W. COX. DRIER



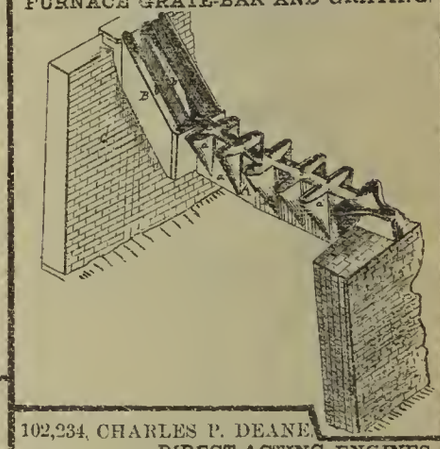
102,231, WARREN S. CRIPPEN.
SPRING BED-BOTTOM



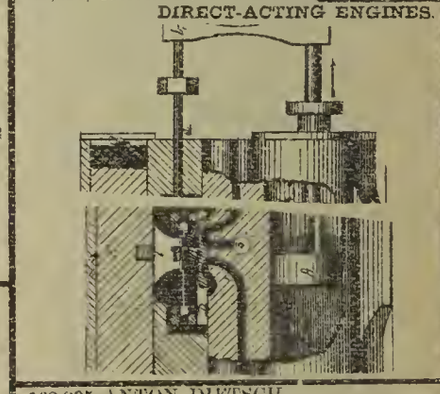
102,232, JOHN CRONIN. MACHINE FOR MAKING WOODEN BOXES



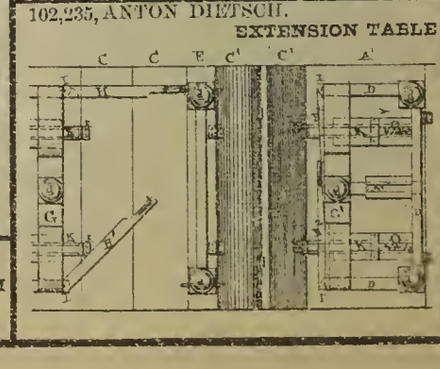
102,233, JOHN CUTHBERT.
FURNACE GRATE-BAR AND GRATING.



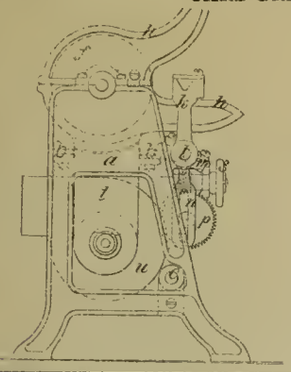
102,234, CHARLES P. DEANE.
DIRECT-ACTING ENGINES.



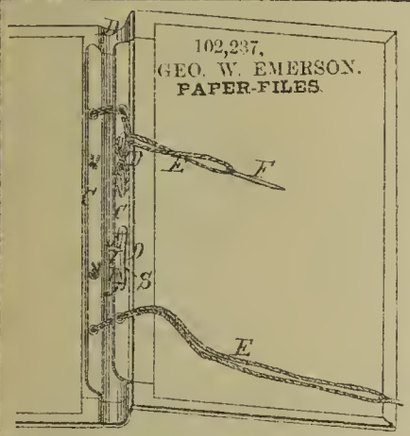
102,235, ANTON DIETSCH.
EXTENSION TABLE



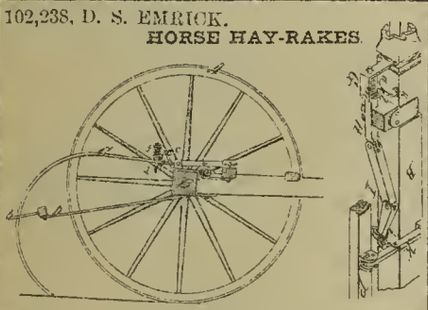
102,236, JOSEPH S. DRONSFIELD.
CARD-GRINDER.



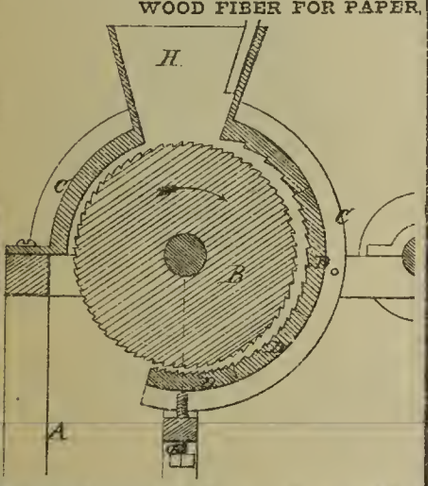
102,237,
GEO. W. EMERSON.
PAPER-FILES.



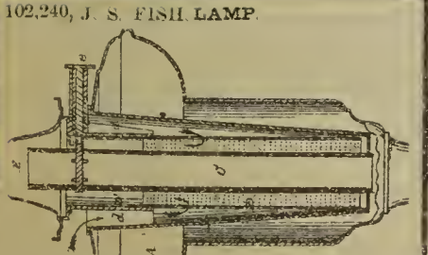
102,238, D. S. EMRICK.
HORSE HAY-RAKES.



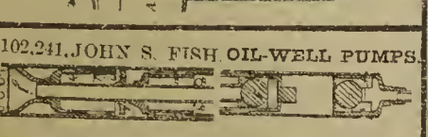
102,239, ALBERT FICKETT.
APPARATUS FOR SEPARATING WOOD FIBER FOR PAPER.



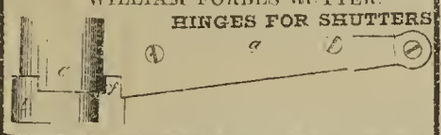
102,240, J. S. FISH, LAMP.



102,241, JOHN S. FISH, OIL-WELL PUMPS.



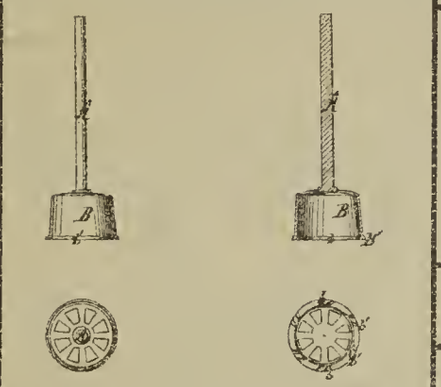
102,242, CHARLES HENRY FORBES.
WILLIAM FORBES RUTTER.
HINGES FOR SHUTTERS.



102,243, LEWIS FRANCIS, INK FOR PRINTING AND OTHER PURPOSES.

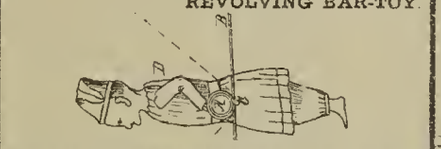
102,244, L. OTTMAR FRANKE.
RAINBOW SPINNING-TOP.

102,245, O. P. FRANTZ.
DEVICE FOR BORING WELLS.

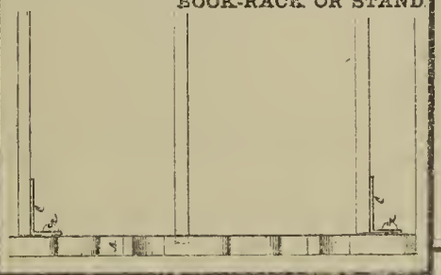


102,246, KAROLINA FRIES.
COMPOUND FOR CLEANSING SILK.

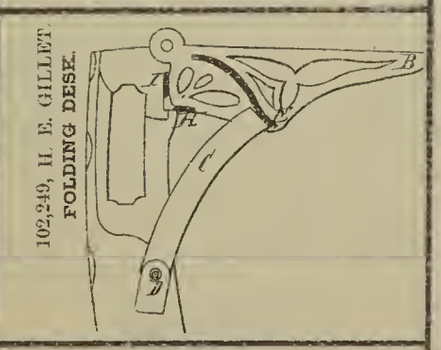
102,247, HENRY N. GALLAGHER.
REVOLVING BAR-TOY.



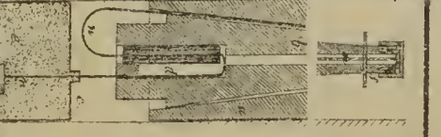
102,248, GEO. GARDNER.
BOOK-RACK OR STAND.



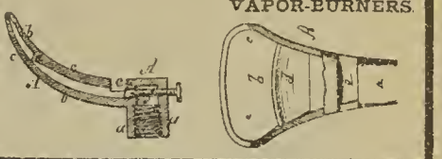
102,249, H. E. GILLET.
FOLDING DESK.



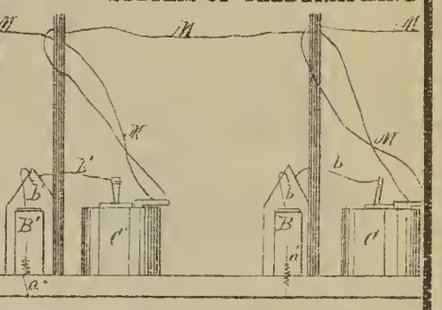
102,250, EDWIN GOMEZ.
TAMPING-PLUGS FOR BLASTING.



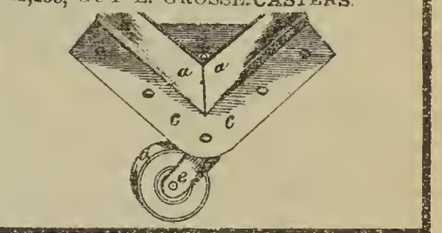
102,251, FRANKLIN GOULD.
VAPOR-BURNERS.



102,252, FREDERICK J. GRACE.
SYSTEM OF TELEGRAPHING.

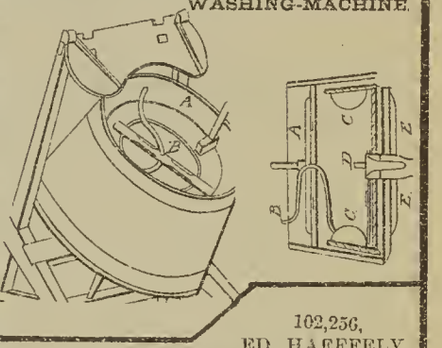


102,253, GUY E. GROSSE, CASTERS.

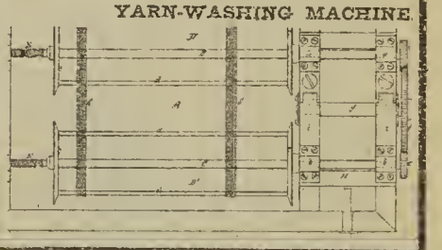


102,254, JOHN D. GRÜNEBERG.
COATING METALS.

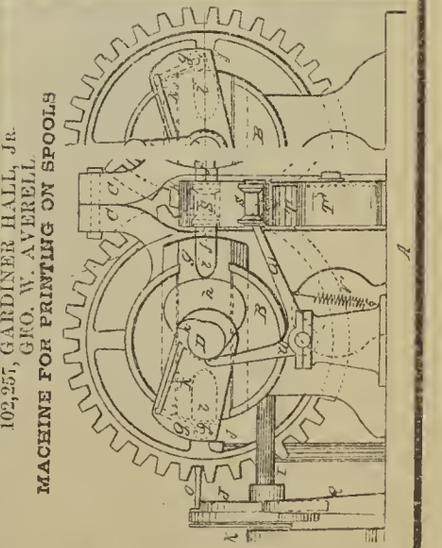
102,255, JOHN HABERMEHL.
WASHING-MACHINE.



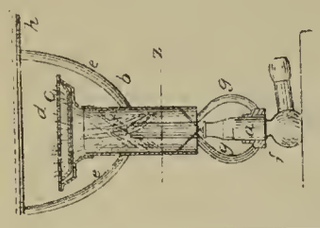
102,256,
ED. HAEFFELY.
YARN-WASHING MACHINE.



102,257, GARDINER HALL, Jr.
GEO. W. AVERELL.
MACHINE FOR PRINTING ON SPOOLS.

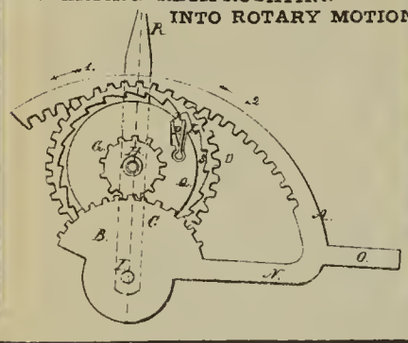


102,258, LAVINAS BUSH HAMILTON. GAS-HEATERS

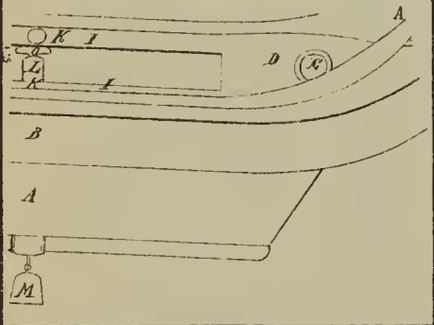


102,259, WM. HENRY HART, JR. HOLDERS FOR NECK-TIES.

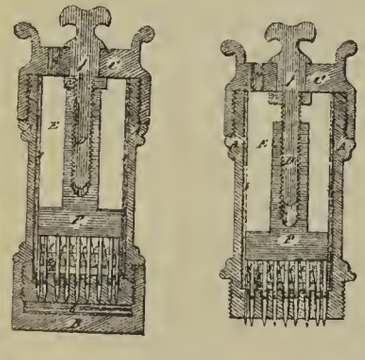
102,260, JOACHIM F. HARTMANN. CONVERTING RECIPROCATING INTO ROTARY MOTION.



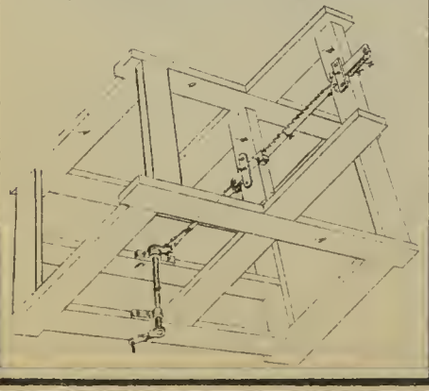
102,261, PHILIP HEINRICH. LIFE-BOATS.



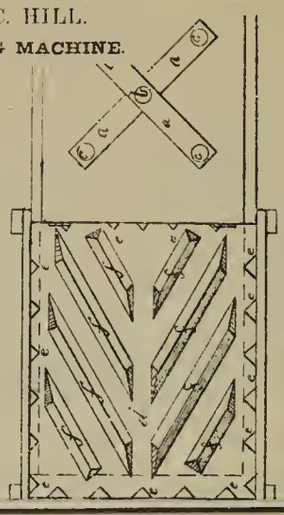
102,262, GARDNER HERRICK. ACUPUNCTURE INSTRUMENTS



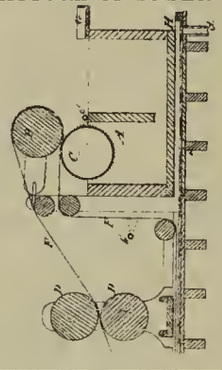
102,263, ENOCH HIGHLEY. SAW-MILLS.



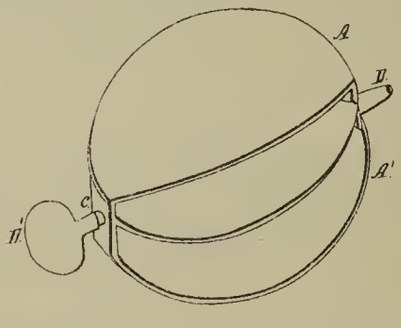
102,264. C. HILL. WASHING MACHINE.



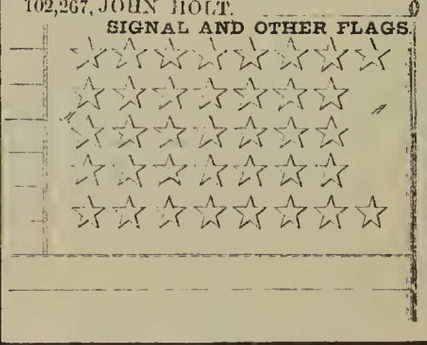
102,265. I. HOFFMAN. MANUFACTURE OF PAPER.



102,266. G. HOLLINGER AND S. H. FRY. STOVE PIPE DAMPER.

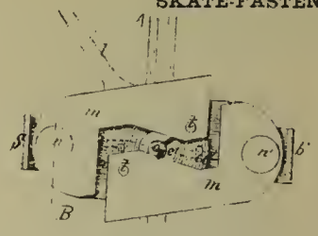


102,267, JOHN HOLT. SIGNAL AND OTHER FLAGS.

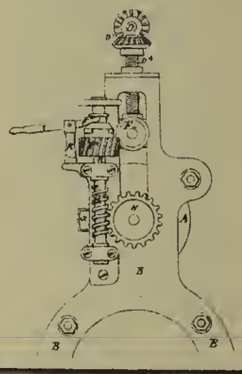


102,268, ALBERT H. HOOK. MANUFACTURE OF INDIA-RUBBER BELTS.

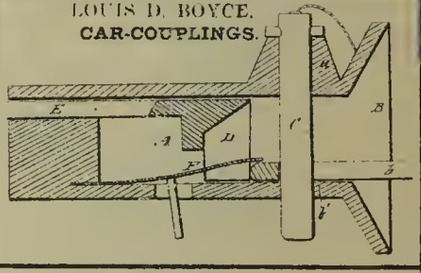
102,269, H. B. HOOKER. SKATE-FASTENING



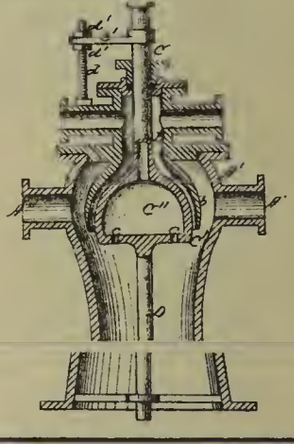
102,270. S. HUTCHINSON. MACHINERY FOR STRIKING OUT LEATHER



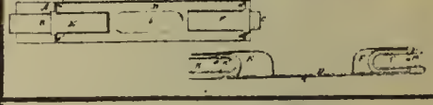
102,271 GEORGE H. JONES. LOUIS D. BOYCE. CAR-COUPLINGS.



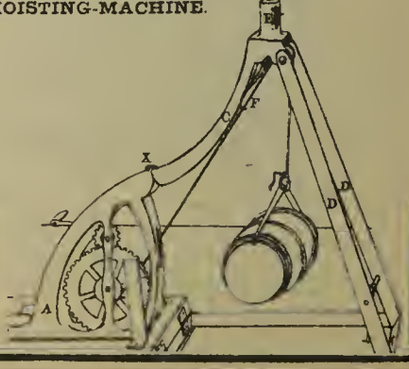
102,272. T. L. JONES. STEAM CONDENSER



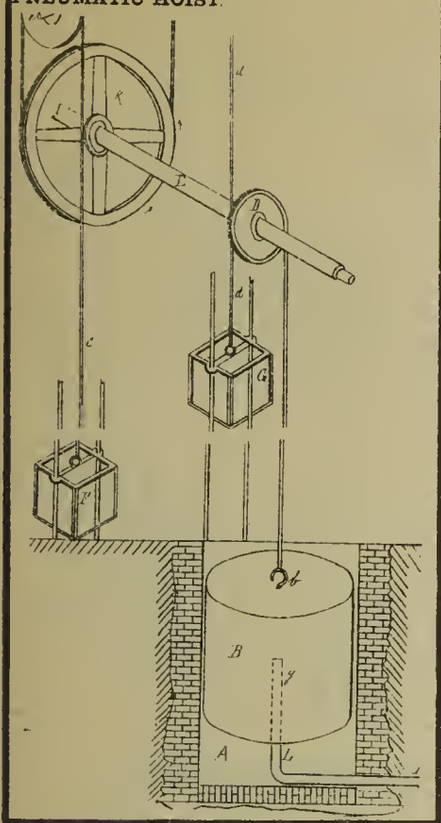
102,273, JAMES FRANKLIN KELLOGG BINDING-GUIDE FOR SEWING-MACHINE.



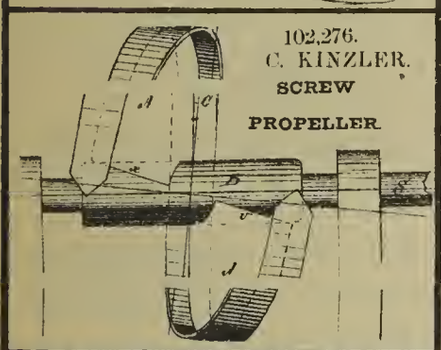
102,274, RICHARD A. KENDALL. WILLIAM KENDALL. HOISTING-MACHINE.



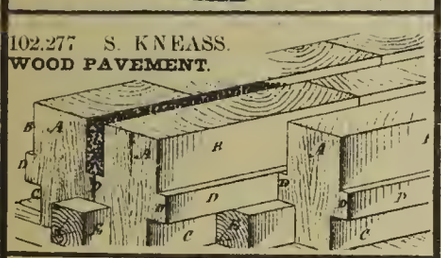
102,275. J. C. KENT AND H. C. RICH
PNEUMATIC HOIST.



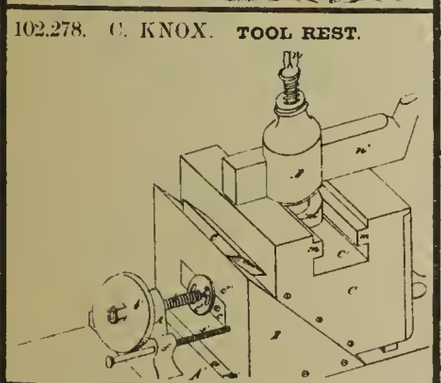
102,276. C. KINZLER.
SCREW PROPELLER.



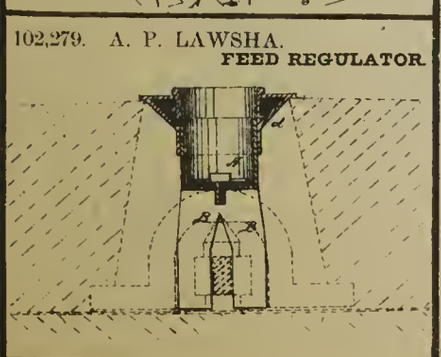
102,277 S. KNEASS.
WOOD PAVEMENT.



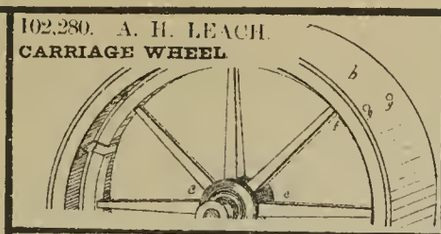
102,278. C. KNOX. **TOOL REST.**



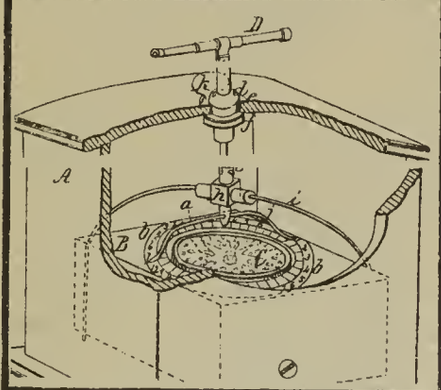
102,279. A. P. LAWSHA.
FEED REGULATOR.



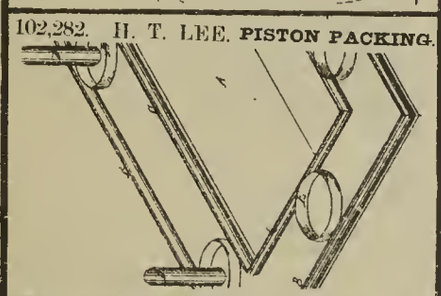
102,280. A. H. LEACH.
CARRIAGE WHEEL.



102,281. J. D. LEACH.
NAVIGATOR'S BEARING INDICATOR.



102,282. H. T. LEE. **PISTON PACKING.**

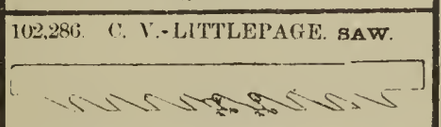


102,283. H. LEE.
MANUFACTURE OF RAILROAD RAILS.

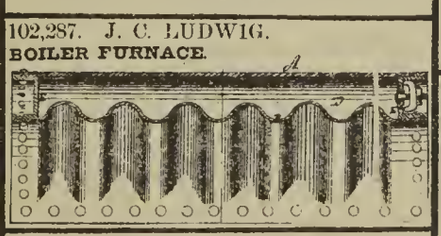
102,284. H. LENOX. **LIGHTING DEVICE.**

102,285. LICHTENSTADT & PENTLARGE **BUNG.**

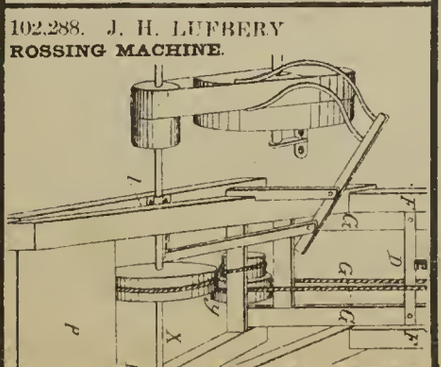
102,286. C. V. LITTLEPAGE. **SAW.**



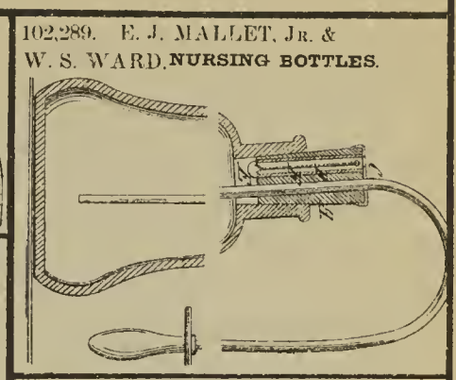
102,287. J. C. LUDWIG.
BOILER FURNACE.



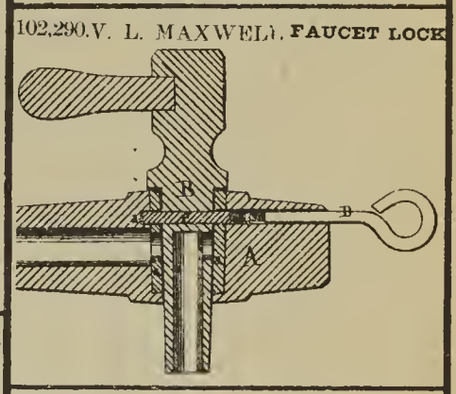
102,288. J. H. LUEBERY
ROSSING MACHINE.



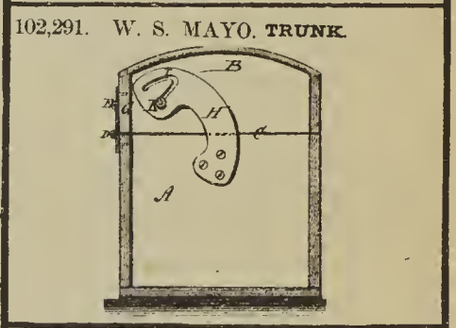
102,289. E. J. MALLET, Jr. &
W. S. WARD. **NURSING BOTTLES.**



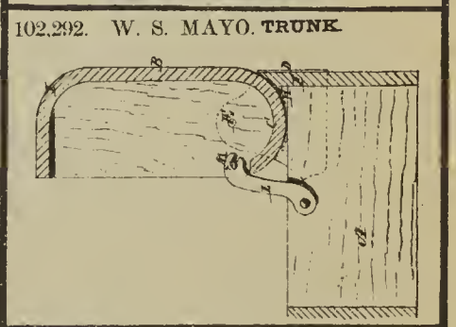
102,290. V. L. MAXWELL. **FAUCET LOCK.**



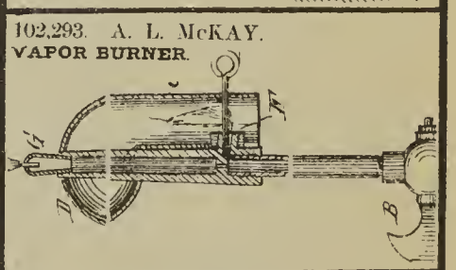
102,291. W. S. MAYO. **TRUNK.**



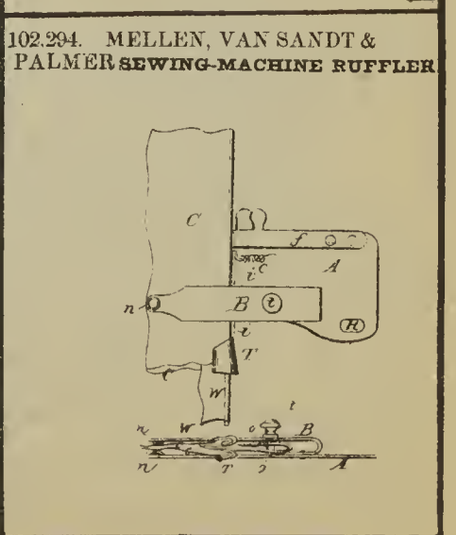
102,292. W. S. MAYO. **TRUNK.**



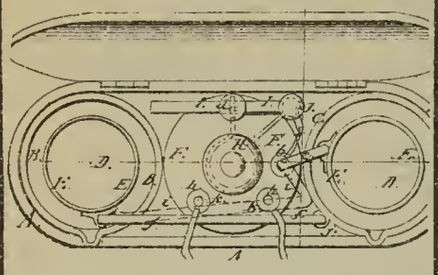
102,293. A. L. McKAY.
VAPOR BURNER.



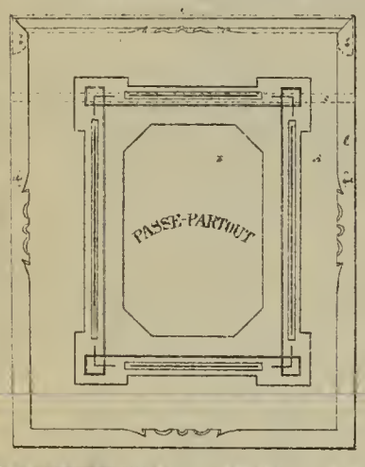
102,294. MELLEN, VAN SANDT &
PALMER **SEWING-MACHINE RUFFLER.**



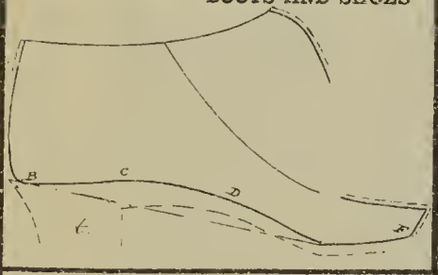
102,295, CURT W. MEYER
POCKET INDUCTION APPARATUS.



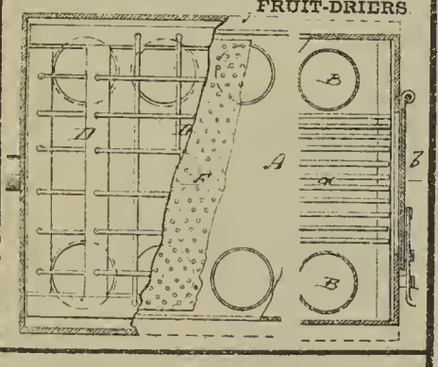
102,296, P. MIGNOT.
FRAME FOR PASSE-PARTOUTS.



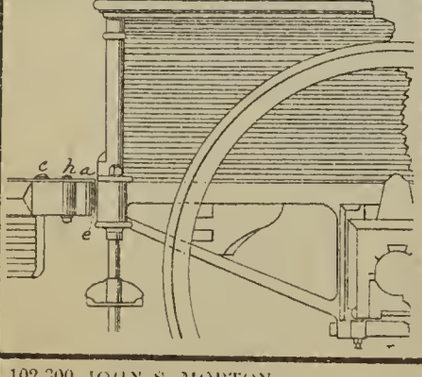
102,297, ROBERT A. MILLER.
BOOTS AND SHOES



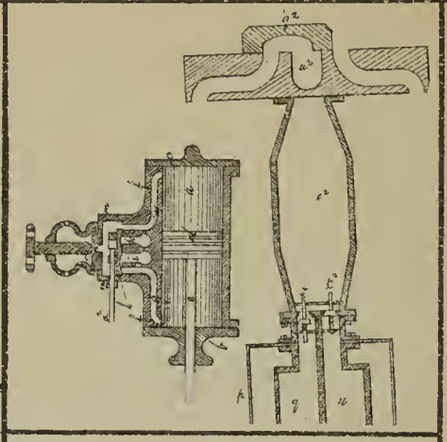
102,298, JOSEPH MONGENE.
FRUIT-DRIERS.



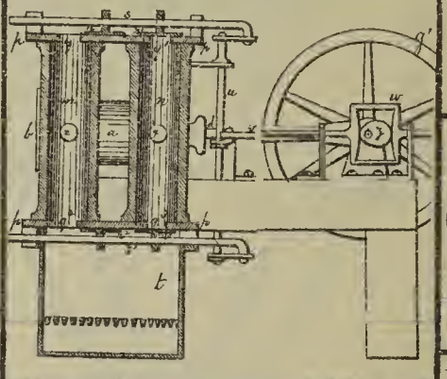
102,299, GEO. F. MORSE.
FOOT-BOARD FOR LOCOMOTIVES.



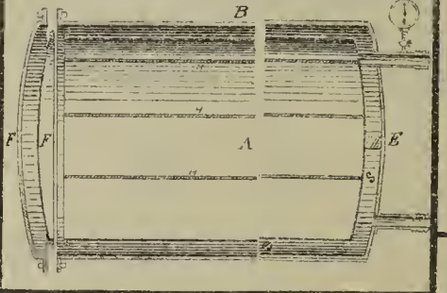
102,300, JOHN S. MORTON.
PNEUMATIC VACUUM-ENGINE.



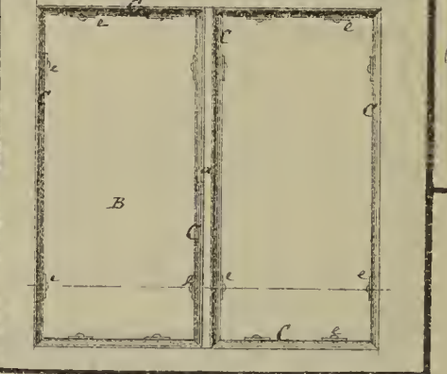
102,301, JOHN S. MORTON.
JOS. H. LANING.
PNEUMATIC VACUUM-ENGINE.



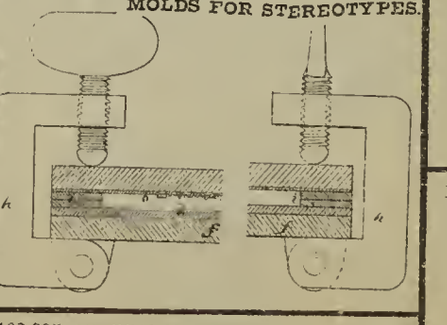
102,302, GEO. H. MUNROE. APPARATUS
FOR COOKING MEAT BY STEAM.



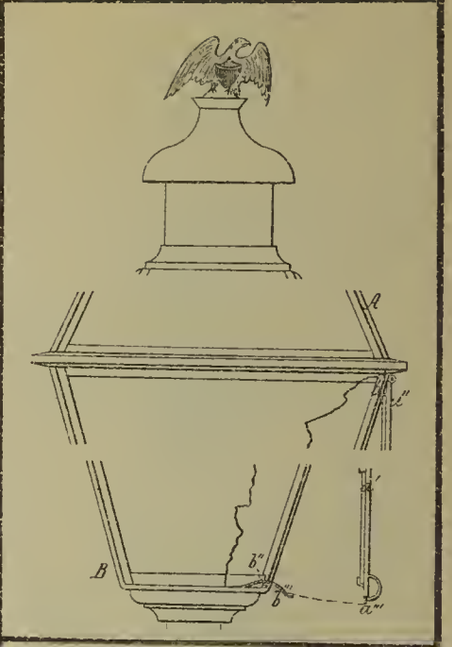
102,303, HARVEY L. MYERS.
WINDOW-SASH.



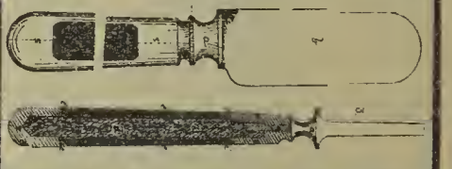
102,304, M. NELSON.
MOLDS FOR STEREOTYPES.



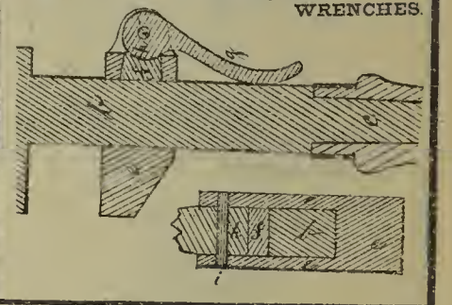
102,305, JOSEPH NEUMANN.
STREET-LANTERNS



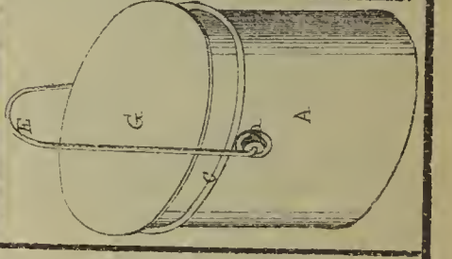
102,306, JOSIAH H. NICHOLS. CUTLERY.
WILLIAM BOWER.



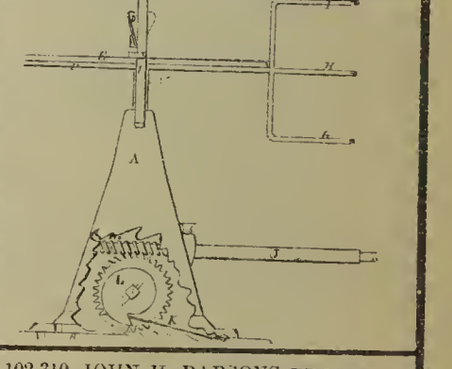
102,307, JOHAN F. NORDQUIST.
WRENCHES.



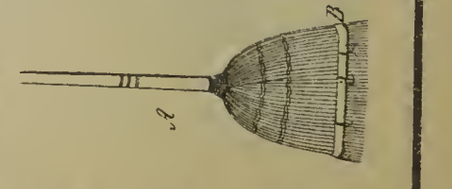
102,308, CHARLES E. OTIS.
PAINT-PAILS.



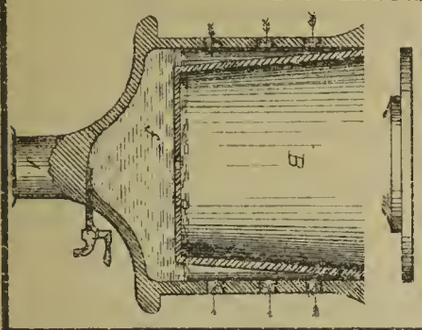
102,309, CAROLINE PARKS.
SWIFT AND REEL.



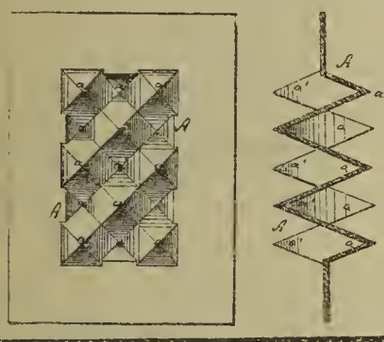
102,310, JOHN H. PARSONS. BROOM.



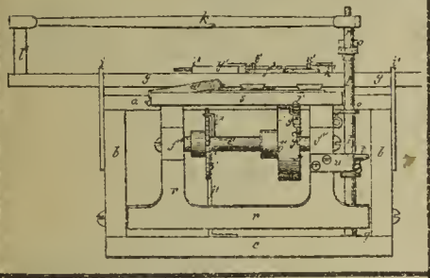
102,311, CHAS R. PENFIELD.
FLOWER-POTS.



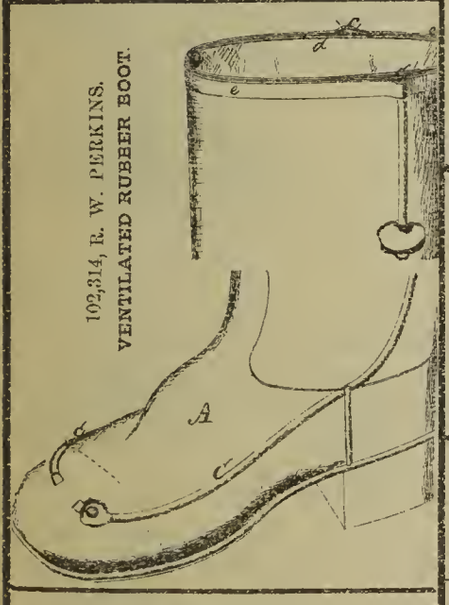
102,312, ABRAHAM LIDDON PENNOCK.
RADIATING OR BOILER-PLATE.



102,313, JOHN PEPPER.
KNITTING-MACHINE.



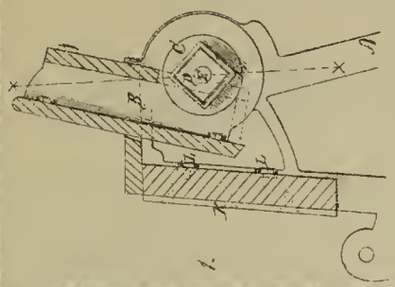
102,314, R. W. PERKINS.
VENTILATED RUBBER BOOT.



102,315, GEORGE M. PETERS.
ADJUSTABLE METALLIC DASHER FOR VEHICLES.

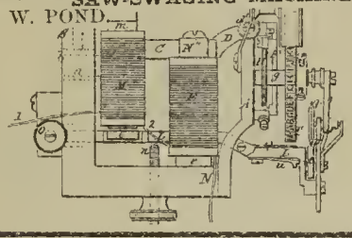
102,316, BENJAMIN F. PICKETT.
RAILWAY CAR-ROOF

102,317, JOHN his × mark F. PIEHL.
SCHOOL-DESK.

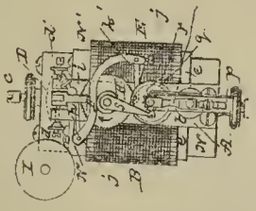


102,318, LEVI W. POND. SAW-SWAGE.

102,319, LEVI W. POND. SAW-SWAGING MACHINE.



102,320 F. L. POPE AND T. A. EDISON
PRINTING TELEGRAPH APPARATUS.



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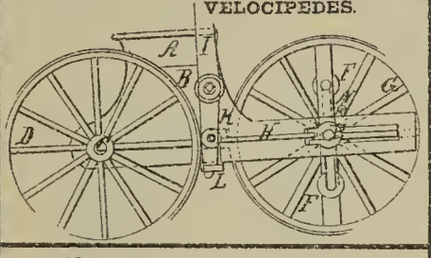
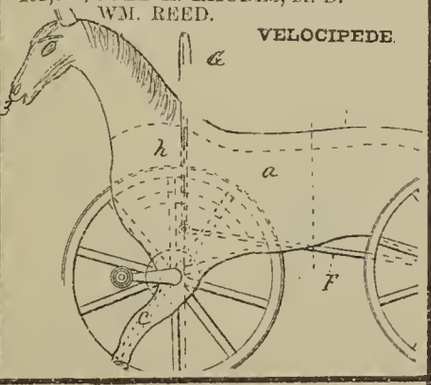
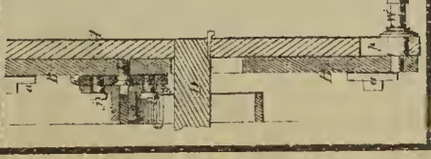
VELOCIPEDES.



102,322, JOEL H. RHODES, M. D.
WM. REED.
VELOCIPEDE.

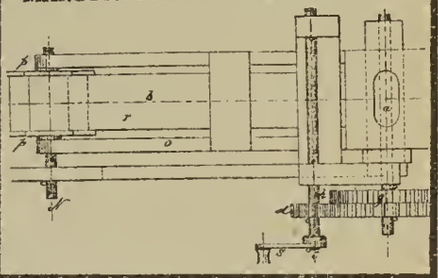


102,323, MARTIN A. ROWE.
CRANK-MOTION

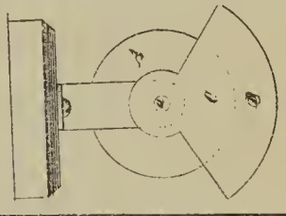


102,324, ELLIOT SAVAGE.
MANUFACTURE OF ALLOYS OF MANGANESE.

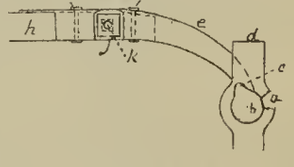
102,325, ALFRED SCATCHARD.
APPARATUS FOR THE MANUFACTURE OF AERATED BREAD.



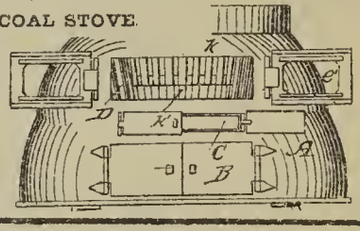
102,326, PETER J. SHIRTS.
SHADE-ROLLER ATTACHMENT.



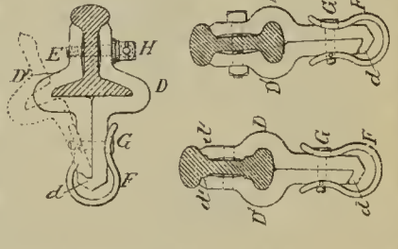
102,327. HUGH SMITH. SLEIGHS.



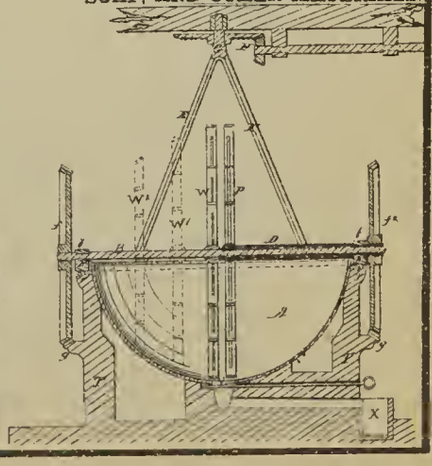
102,328. J. SPEAR.
COAL STOVE.



102,329, C. E. SPOONER.
GEO. A. HUDDART.
RAILWAY-RAIL JOINTS

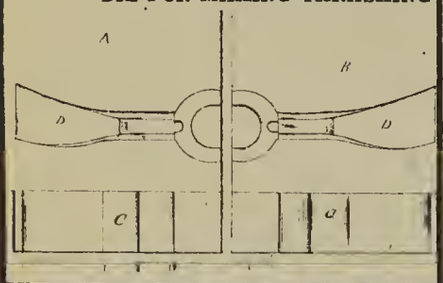


102,330, JOHN STAINTHORP.
ISAAC COLE.
MACHINE FOR MIXING PAINT, SOAP, AND OTHER MATERIALS.



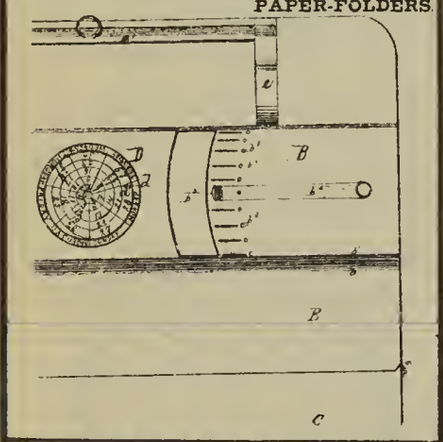
102,331, F. H. STAUFFER.
CARPET-TACKING MACHINE.

102,332, C. H. THOMPSON.
MACHINE TEETH
DIE FOR MAKING THRASHING

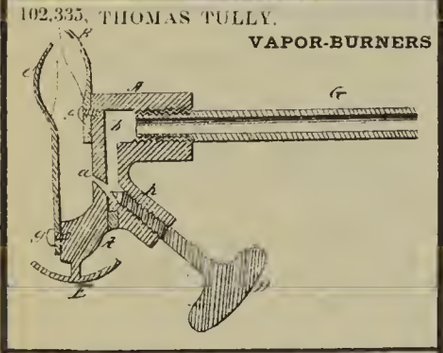


102,333, JAMES THORNTON.
CHARLES F. DEMMEN.
TRACE-BUCKLES.

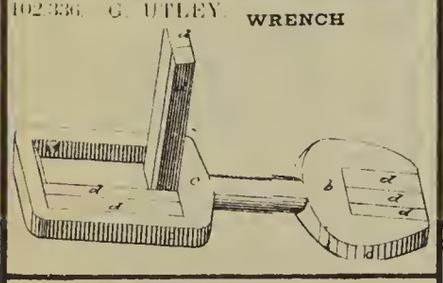
102,334, E. PALMER TIFFANY.
PAPER-FOLDERS.



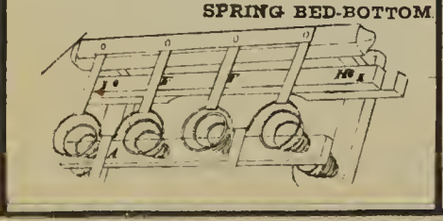
102,335, THOMAS TULLY.
VAPOR-BURNERS



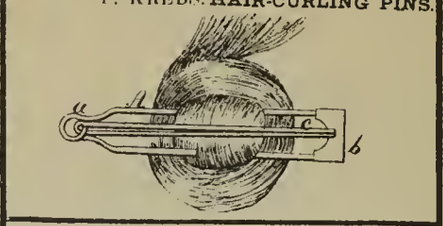
102,336, G. UTLEY.
WRENCH

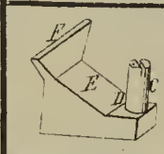


102,337, M. VAN VLECK.
LAWRENCE VAN VLECK.
SPRING BED-BOTTOM.



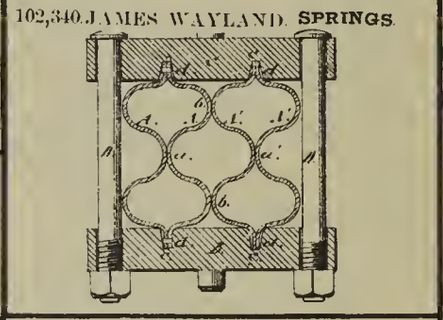
102,338, A. VOGEL.
F. KREBS. HAIR-CURLING PINS.



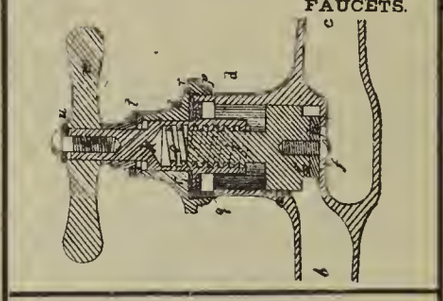


102,339,
THOMAS WARD.
VAPOR-BURNERS.

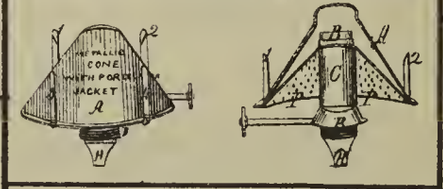
102,340. JAMES WAYLAND. SPRINGS.



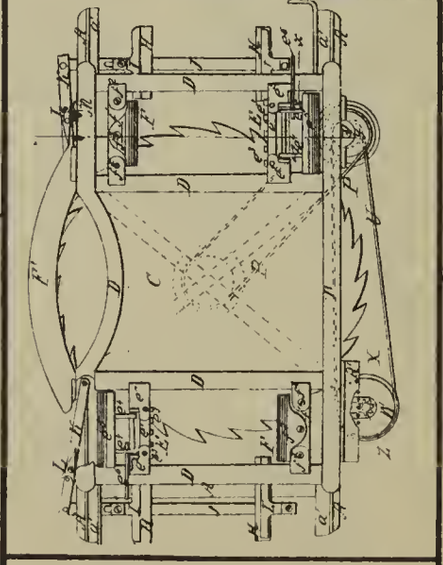
102,341, DARIUS WELLINGTON.
FAUCETS.



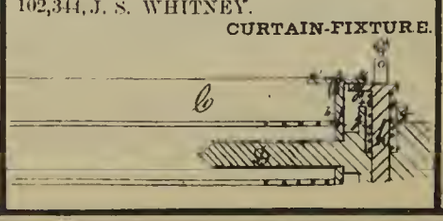
102,342, JAS. S. WETHERBY.
LAMP-BURNERS.



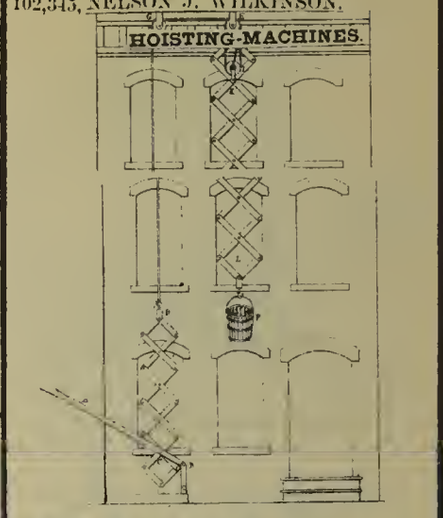
102,343, E. T. WHEELER.
SHINGLE-MACHINE.



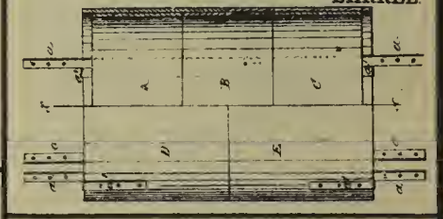
102,344, J. S. WHITNEY.
CURTAIN-FIXTURE.



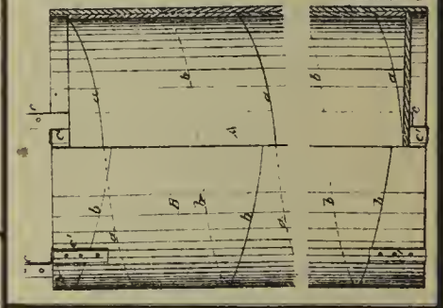
102,345, NELSON J. WILKINSON.
HOISTING-MACHINES.



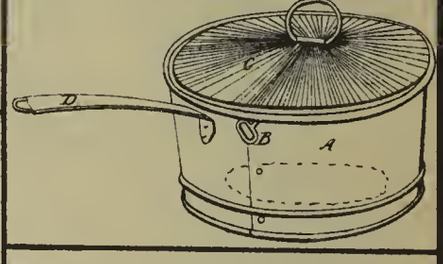
102,346, HENDERSON WILLARD.
BARREL.

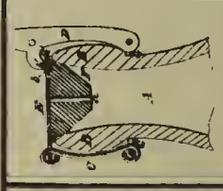


102,347, HENDERSON WILLARD.
BARREL.



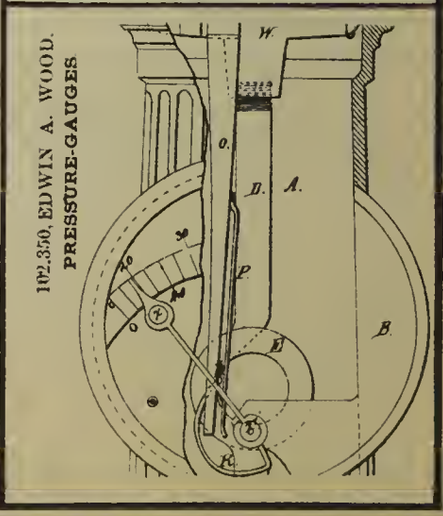
102,348, HENDERSON WILLARD.
BROILER FOR MEAT





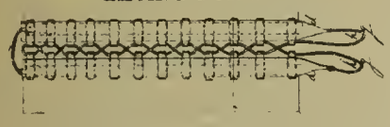
102,349,
WILLIAM WILSON.
DAVID WILSON.
BOTTLE-STOPPERS.

102,350, EDWIN A. WOOD.
PRESSURE-GAUGES.

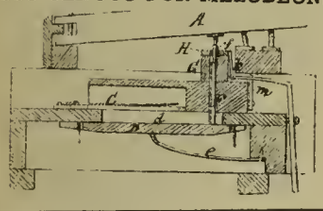


102,351, GEORGE W. WOOD
EAR-BRUSHES.

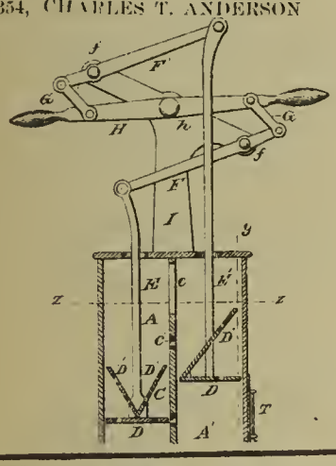
102,352. R. WRIGHT.
LACING FOR SHOES.



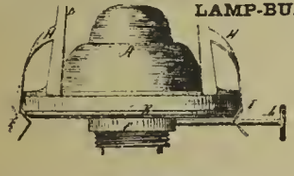
102,353 A. ZAWADSKI.
BASSO TENUTO FOR MELODEONS



102,354, CHARLES T. ANDERSON

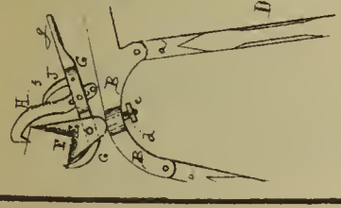


102,355, PHILANDER BAKER.
LAMP-BURNERS.

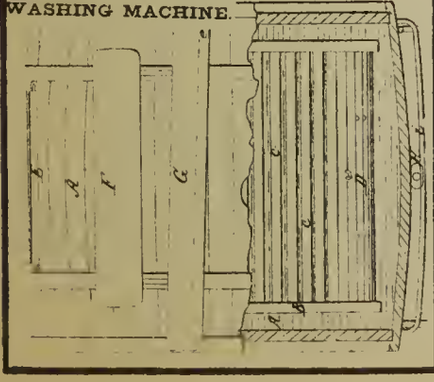


102,356. S. BEATTY.
PERFORATED WIRE.

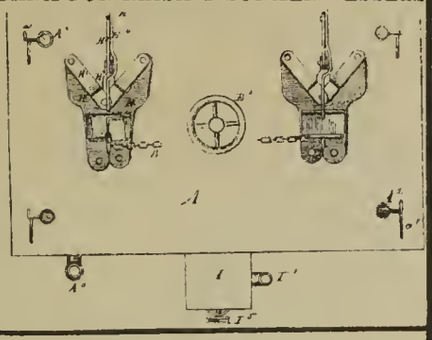
102,357 SAMUEL BECKER. CAR-MOVER.
PETER LOUCKS.



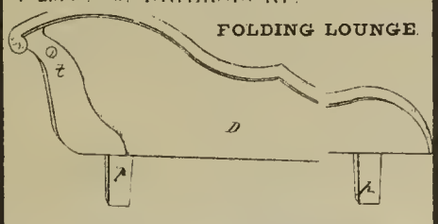
102,358. N. W. BECKWITH.
WASHING MACHINE.



102,359. F. W. BEERS
TANK FOR RAISING SUNKEN VESSELS

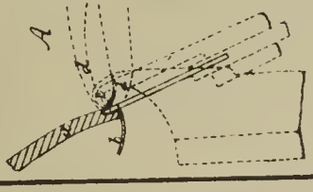


102,360. J. BEIERSDORF.
FOLDING LOUNGE.



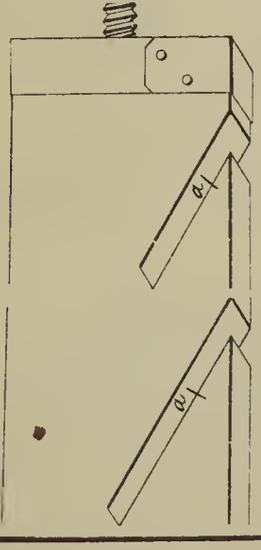
102,361. J. C. BLAKE.
STREET PAVEMENT.

102,362. L. R. BLAKE.
MANUFACTURE OF BOOTS AND SHOES

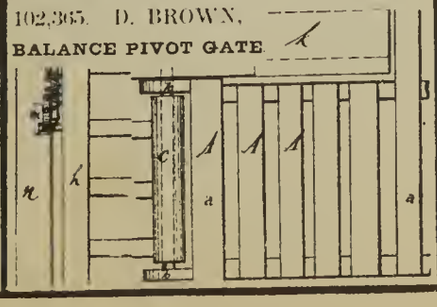


102,363. V. W. BLANCHARD
PINION

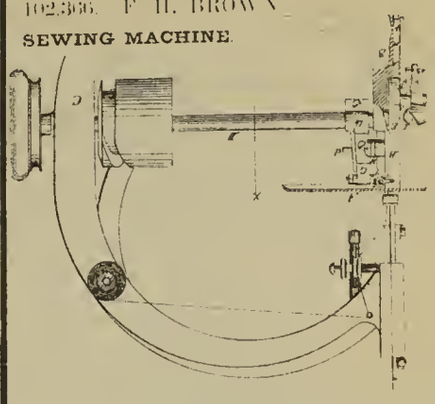
102,364. A. P. BROWN. WINDMILL.



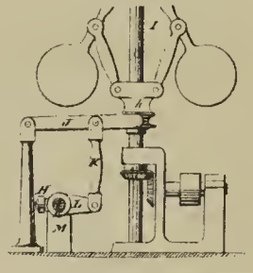
102,365. D. BROWN.
BALANCE PIVOT GATE.



102,366. F. H. BROWN.
SEWING MACHINE.

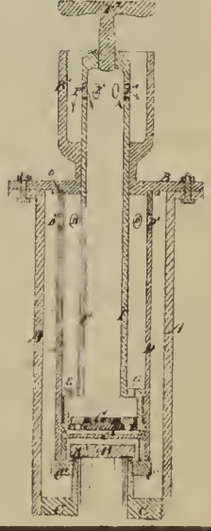


102,367. W. BROWN. VARIABLE CUT OFF VALVE GEAR AND VALVE.

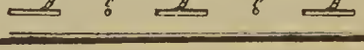


102,368. E. F. BURROWS.
SHUTTLE FOR LOOMS.

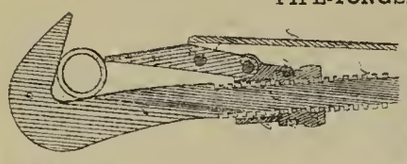
102,369. A. CARVER. PUMP.



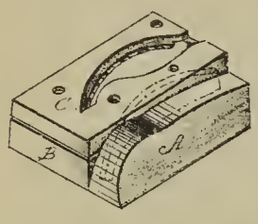
102,370. J. C. CARY
STRAP FASTENING FOR PACKAGES.



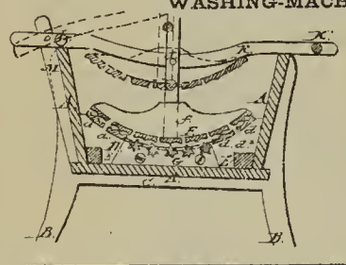
102,371, AURY GATES COES.
PIPE-TONGS.



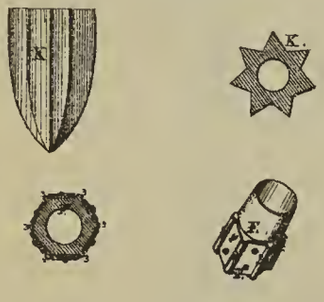
102,372. HORACE COLBURN.
DIE FOR FORGING OX-SHOES.



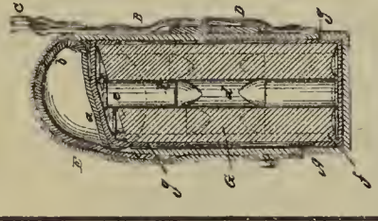
102,373. HANSON COOK.
WASHING-MACHINE.



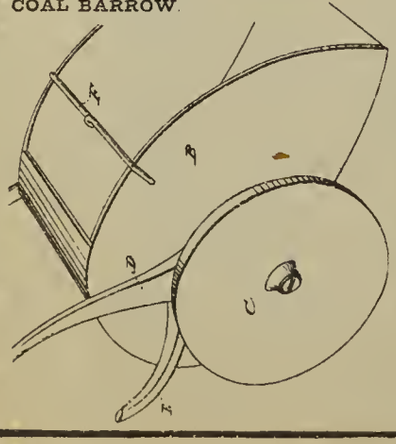
102,374, PATRICK H. COYLE.
BOILER-TUBE CLEANER.



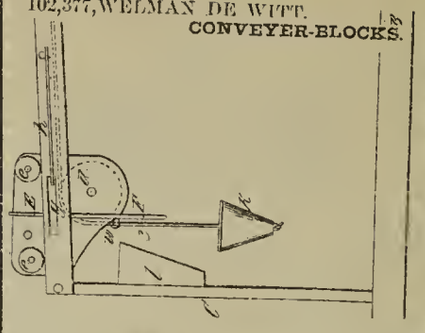
102,375. S. A. DAY.
CARTRIDGE CASE.



102,376. P. K. DEDERICK.
COAL BARROW.

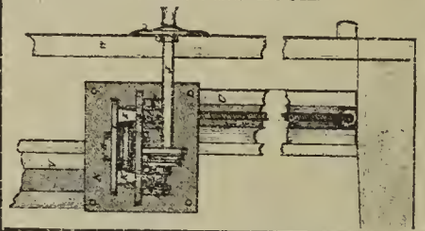


102,377, WELMAN DE WITT.
CONVEYER-BLOCKS.

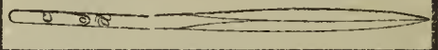


102,378, LANSING DOCKSTADER.
COATING AND BRONZING IRON.

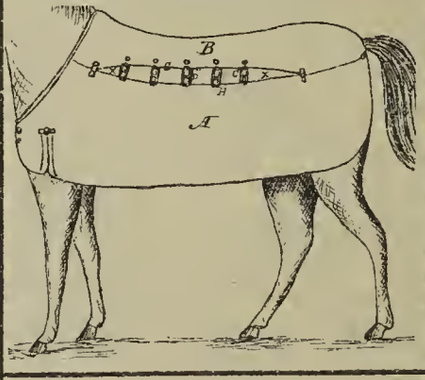
102,379. W. H. DOE.
SASH BALANCE AND LOCK.



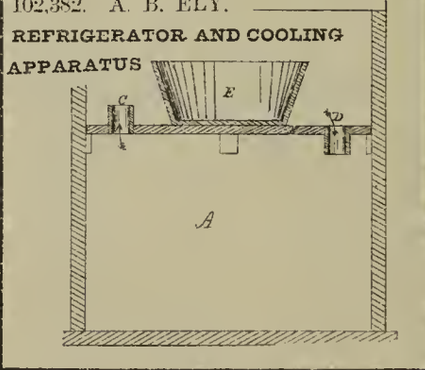
102,380, JAMES W. DONALDSON.
DANIEL SHEETS.
NEEDLES.



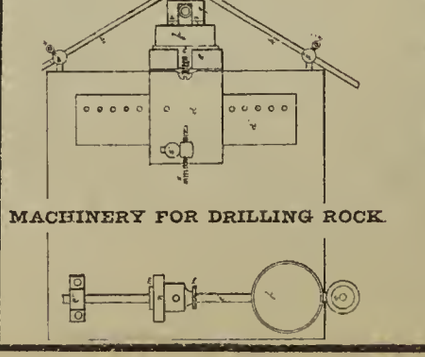
102,381. C. P. EAGER.
VENTILATED HORSE COVER.



102,382. A. B. ELY.
REFRIGERATOR AND COOLING APPARATUS



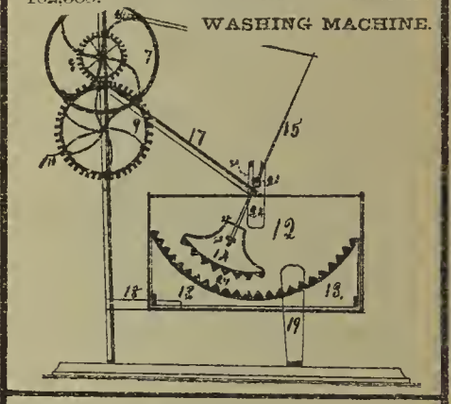
102,383. W. H. ELLIOT.



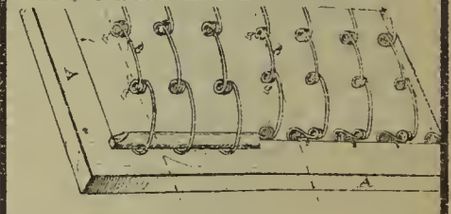
MACHINERY FOR DRILLING ROCK.

102,384. A. L. FINCH.
PATTERN FOR CASTINGS.

102,385. E. FISEUS AND S. ARNEY.
WASHING MACHINE.

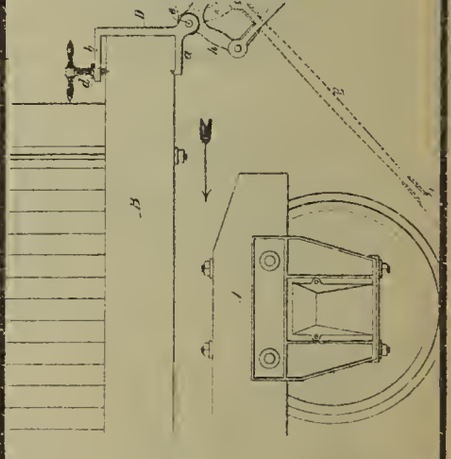


102,386. M. FLANIGAN.
SPRING SEAT AND BED BOTTOM.

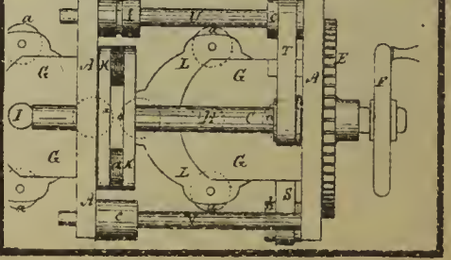


102,387. H. FLEISCHMANN.
MANUFACTURE OF YEAST.

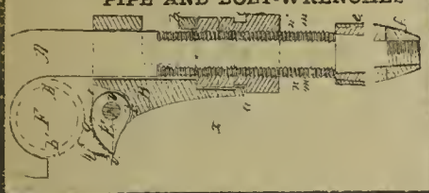
102,388. J. FOREMAN.
DEVICE FOR MOVING CARS.



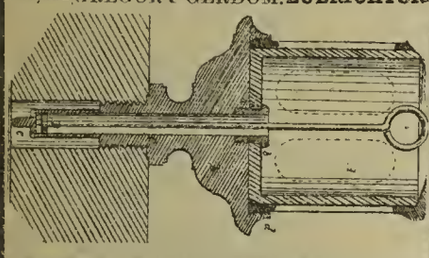
102,389. T. FOWLER.
MACHINE FOR ROLLING METAL BARS.



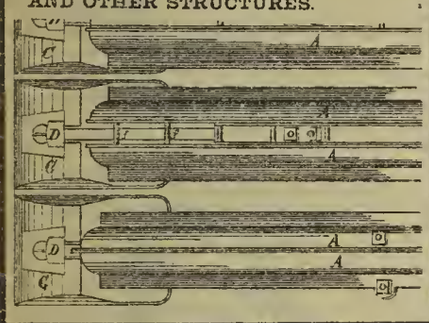
102,390, LOUIS FREY
GEORGE MACARDLE.
PIPE AND BOLT-WRENCHES



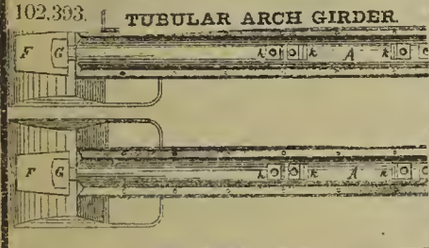
102,391, GREGORY GERDOM. LUBRICATOR.



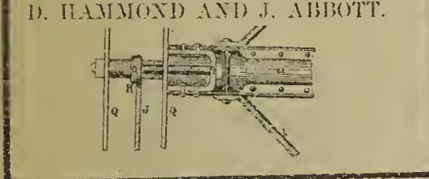
102,392, DAVID HAMMOND.
JOB ABBOTT.
TUBULAR ARCH GIRDER FOR BRIDGES AND OTHER STRUCTURES.



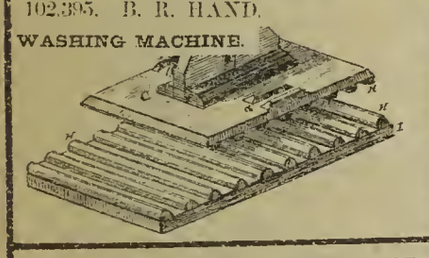
D. HAMMOND AND J. ABBOTT.
102,393. TUBULAR ARCH GIRDER.



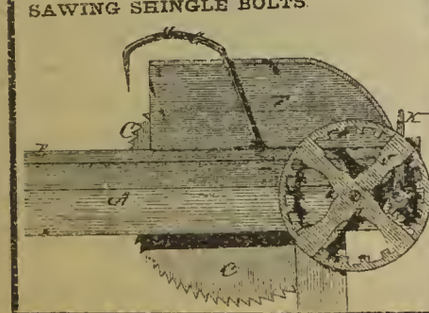
102,394. TRUSS GIRDER BRIDGE.
D. HAMMOND AND J. ABBOTT.



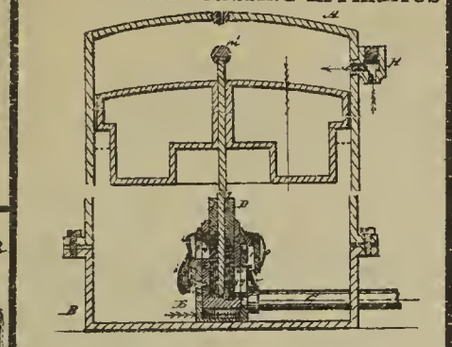
102,395. B. R. HAND.
WASHING MACHINE.



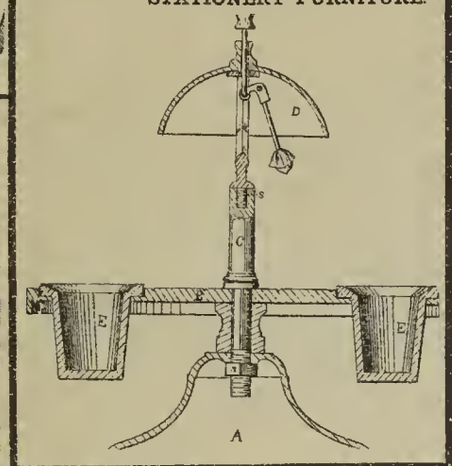
102,396. M. HART MACHINE FOR SAWING SHINGLE BOLTS.



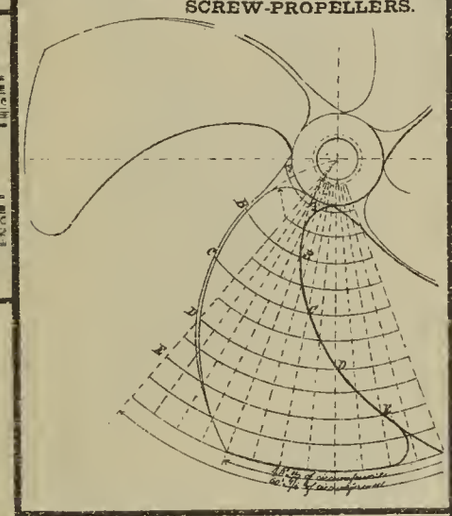
102,397, MICHAEL HEY. HYDRAULIC AIR-COMPRESSING APPARATUS



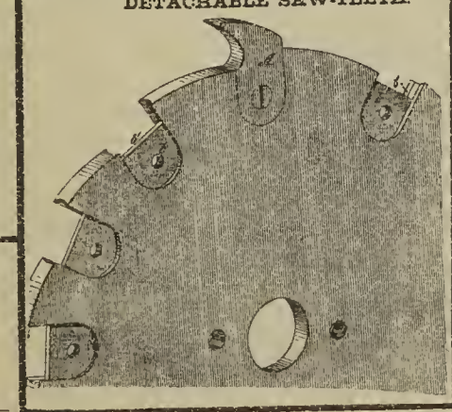
102,398, ADALINE D. HIBBS.
STATIONERY FURNITURE.



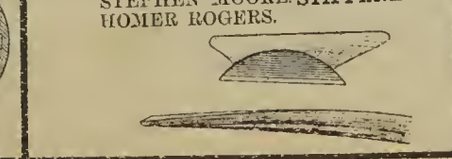
102,399, HERMANN HIRSCH.
SCREW-PROPELLERS.



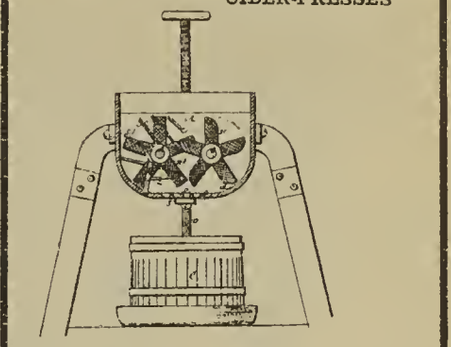
102,400, PATRICK J. HOGAN.
DETACHABLE SAW-TEETH.



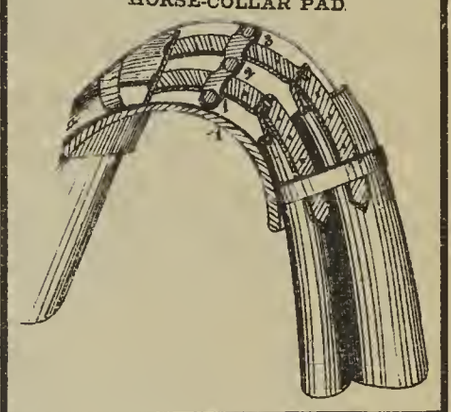
102,401, GEO. HOUGHTON. STEPHEN MOORE. HOMER ROGERS.
SHANK-STIFFENER.



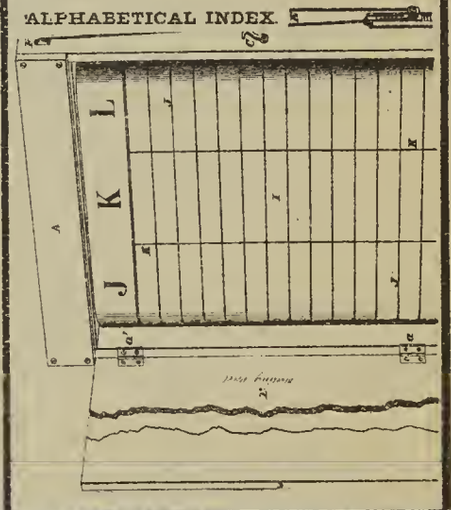
102,402, FRANCIS HOVEY.
CIDER-PRESSES



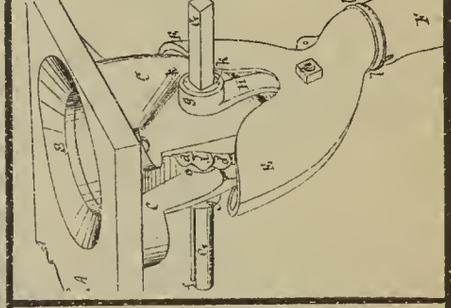
102,403. JAMES S. HUSTON.
HORSE-COLLAR PAD.



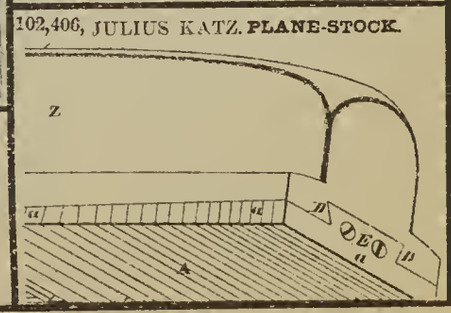
102,404. W. C. HUSTON
ALPHABETICAL INDEX.



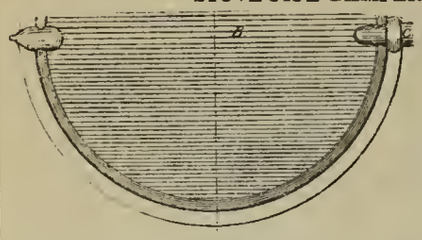
102,405. JOSEPH INGELS.
SEEDING-MACHINES.



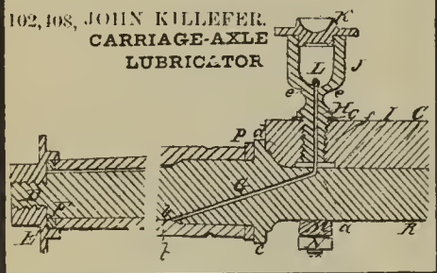
102,406, JULIUS KATZ. PLANE-STOCK.



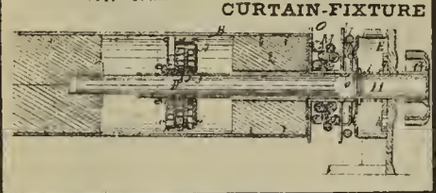
102,407, WILLIAM J. KEEP.
STOVE-PIPE DAMPER.



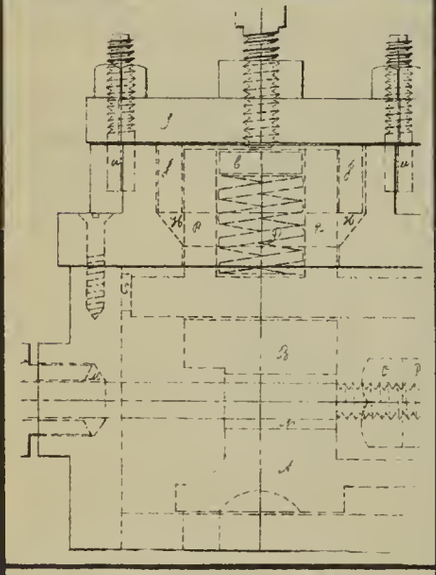
102,408, JOHN KILLEFER.
CARRIAGE-AXLE LUBRICATOR



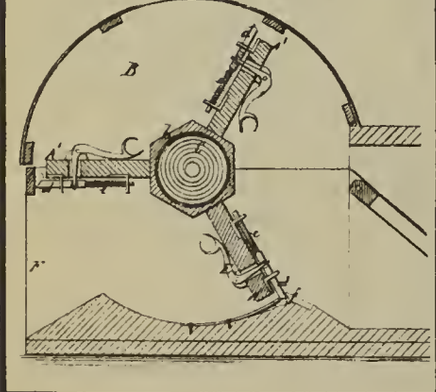
102,409, A. H. KNAPP.
GEORGE W. BAILEY.
CURTAIN-FIXTURE



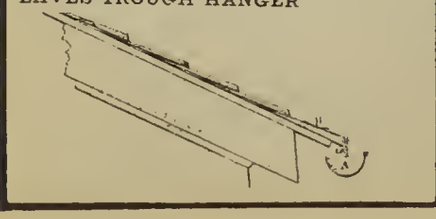
102,410, JAMES LARKIN **SLIDE-VALVES**



102,411, JAMES H. LORD. **ANIMAL TRAP.**

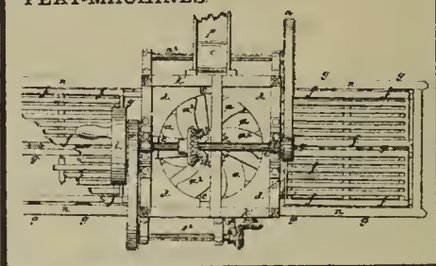


102,412 R. A. LUCAS
EAVES TROUGH HANGER

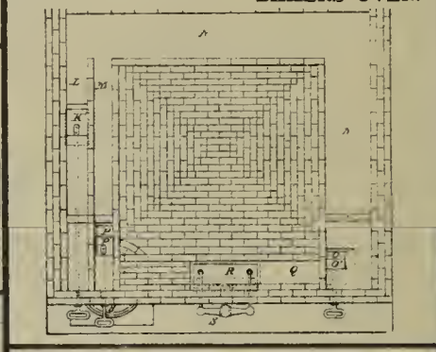


102,413, O. R. LUTHER.
ADJUSTABLE FEET FOR CLOCK-CASES.

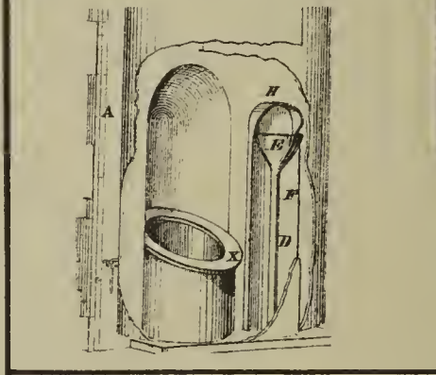
102,414, JAMES B. LYONS.
PEAT-MACHINES.



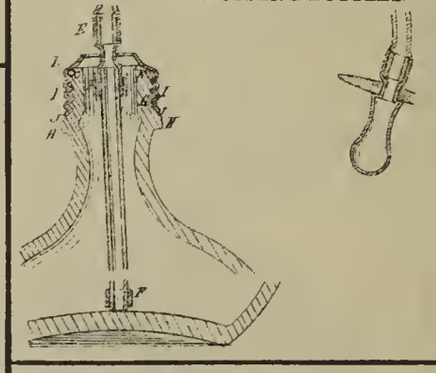
102,415, TERRENCE P. MAHON.
BAKERS' OVEN.



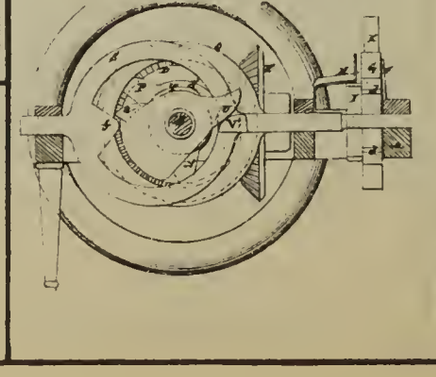
102,416, S. MALES.
PUBLIC URINAL.



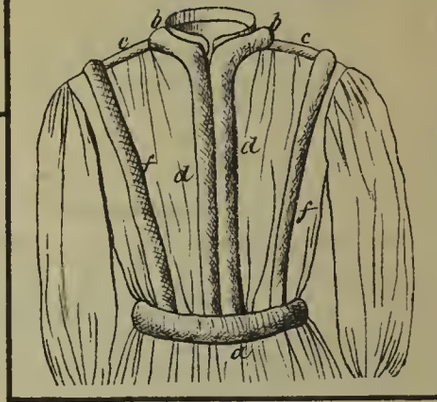
102,417, JOHN L. MASON.
NURSING-BOTTLES.



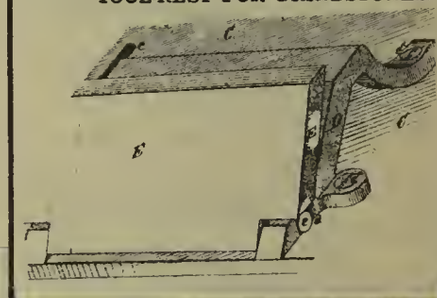
102,418, JOHN MORGAN, JR.
BOLT AND RIVET-MACHINE.



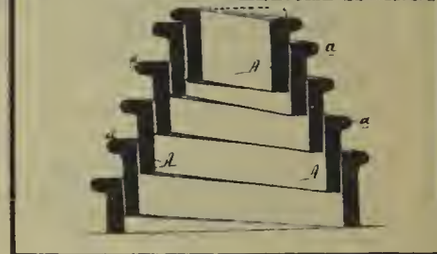
102,419, WILLIAM MORRIS, M. D.
LIFE-PRESERVING GARMENTS.



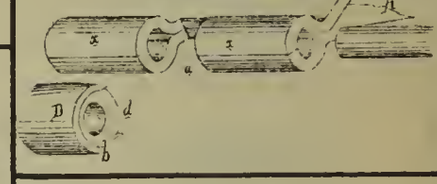
102,420, WILLIAM H. MOSSTELLER.
TOOL-REST FOR GRINDSTONES.



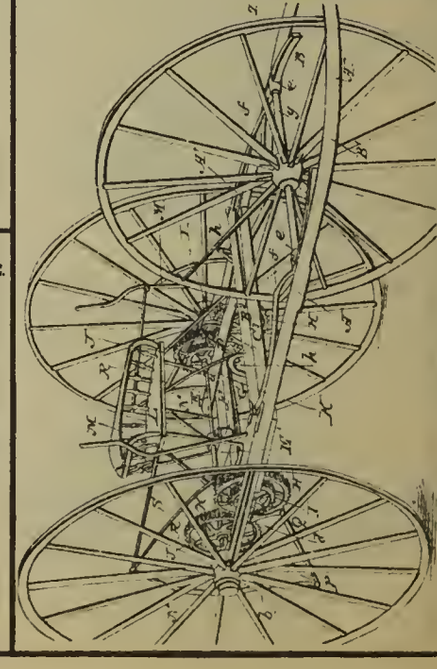
102,421, WILLIAM RHODA NICHOLS.
HELICAL SPRINGS.



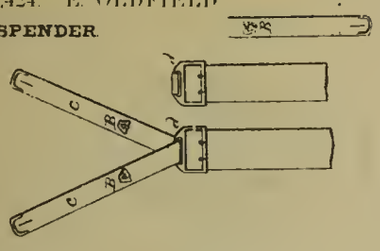
102,422,
WILLIAM RHODA NICHOLS.
CHARLES WILLIAMS PICKERING.
SPRINGS FOR RAILWAY CARS AND OTHER VEHICLES.



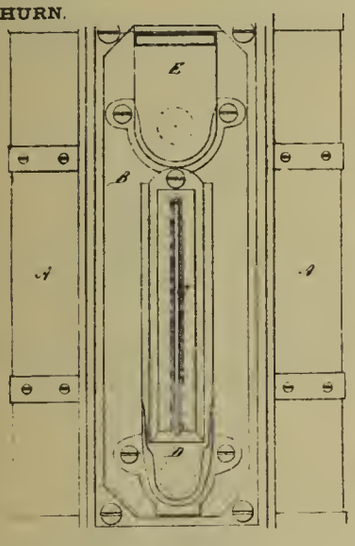
102,423, STAS NISLOSDUFF.
VELOCIPEDES.



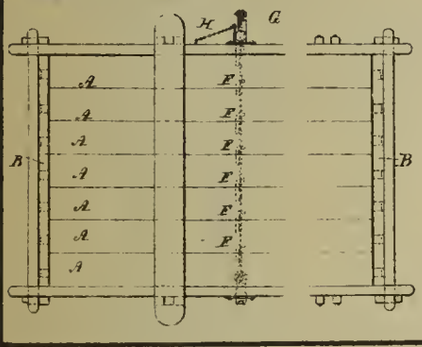
102,424. E. OLDFIELD
SUSPENDER.



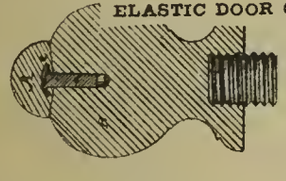
102,425. G. N. PALMER.
CHURN.



102,426. C. F. PARKER.
DUMPING WAGON.

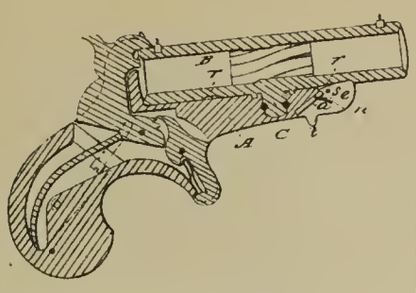


102,427. D. E. PECK
ELASTIC DOOR GUARD

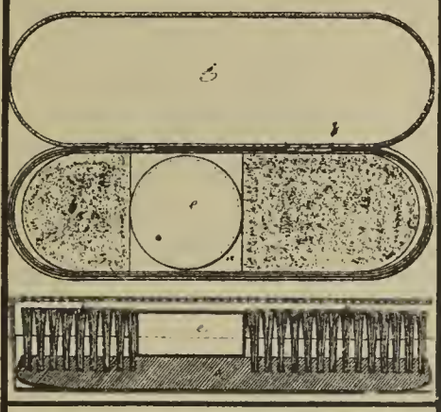


102,428. D. W. PEPPER.
DREDGING CAN.

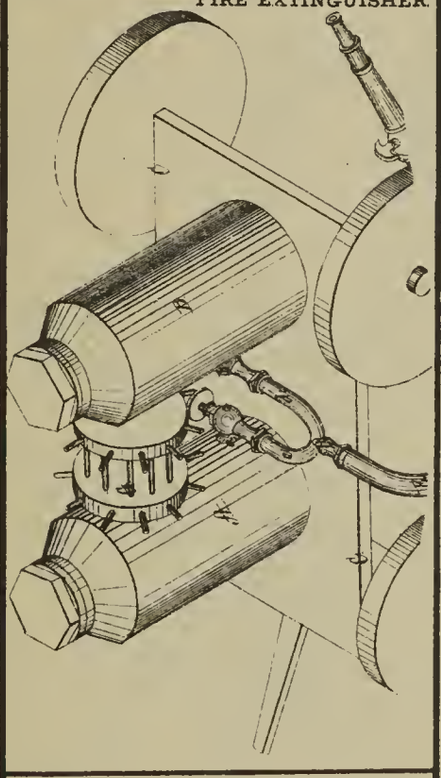
102,429. S. M. PERRY.
BREECH LOADING PISTOL.



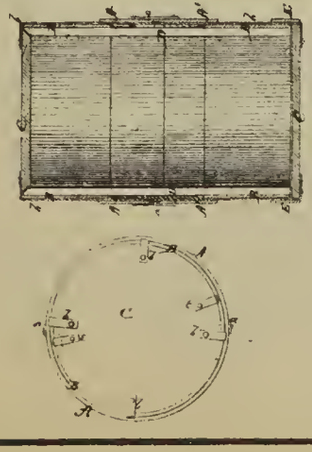
102,430. E. A. PIERCE.
PORTABLE SHOE BRUSH AND BOX.



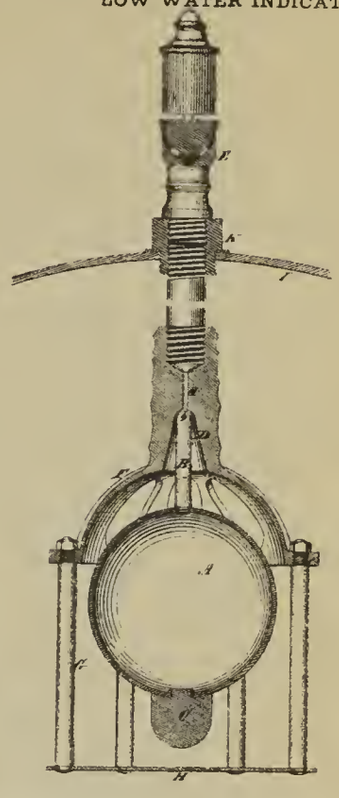
102,431. G. F. PINKHAM.
FIRE EXTINGUISHER.



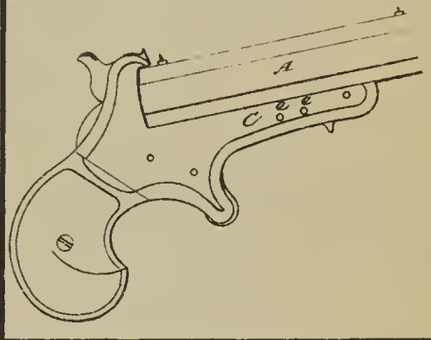
102,432. H. G. PORTER BARREL.



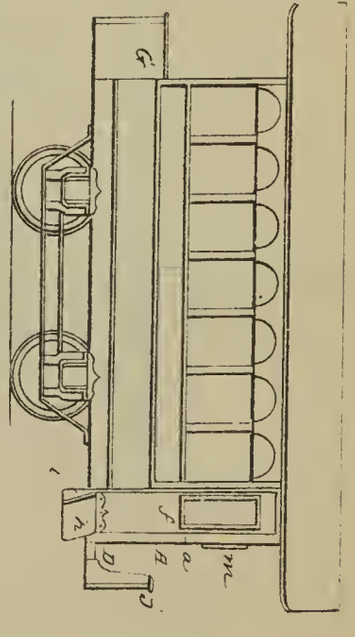
102,433. P. W. REINSHAGEN
LOW WATER INDICATOR



102,434. E. S. RENWICK.
BREECH LOADING FIRE ARM.

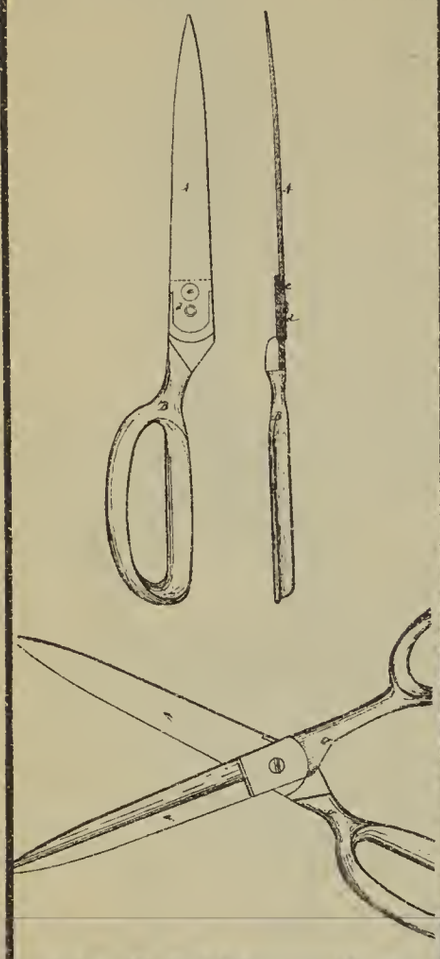


102,435. J. E. RIDGWAY.
STREET CAR.



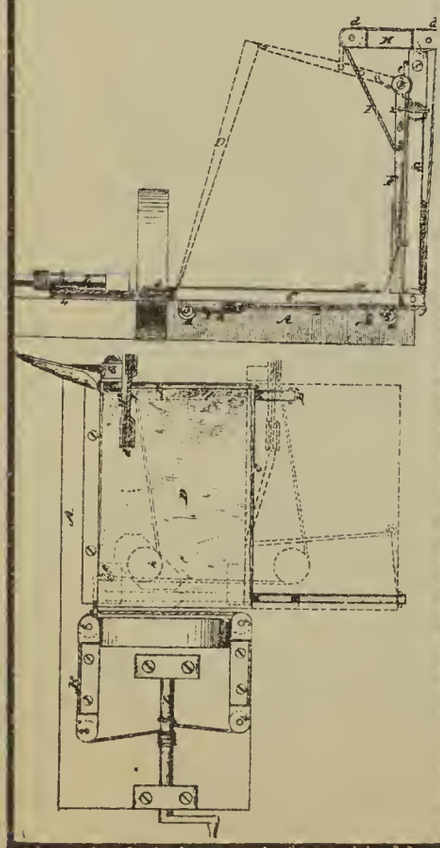
102,436. J. F. RUSSELL.
BUTTON SHANK GAGE.

102,437. J. RYALS.
MANUFACTURE OF SHEARS.



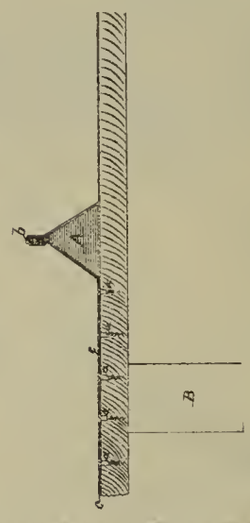
102,438. W. I. SAPP.
MANUFACTURE OF FERTILIZER.

102,439. J. B. SAWYER.
DROPPING PLATFORM
FOR HARVESTERS.

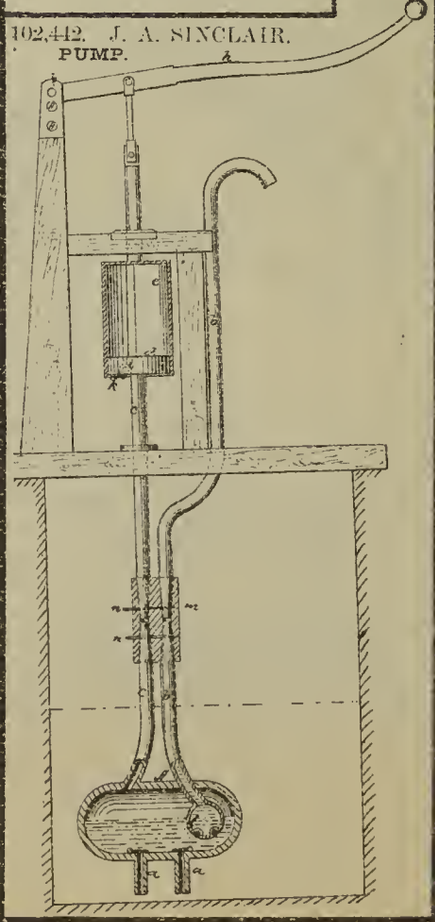


102,440. H. S. SHEPARDSON.
PADLOCK.

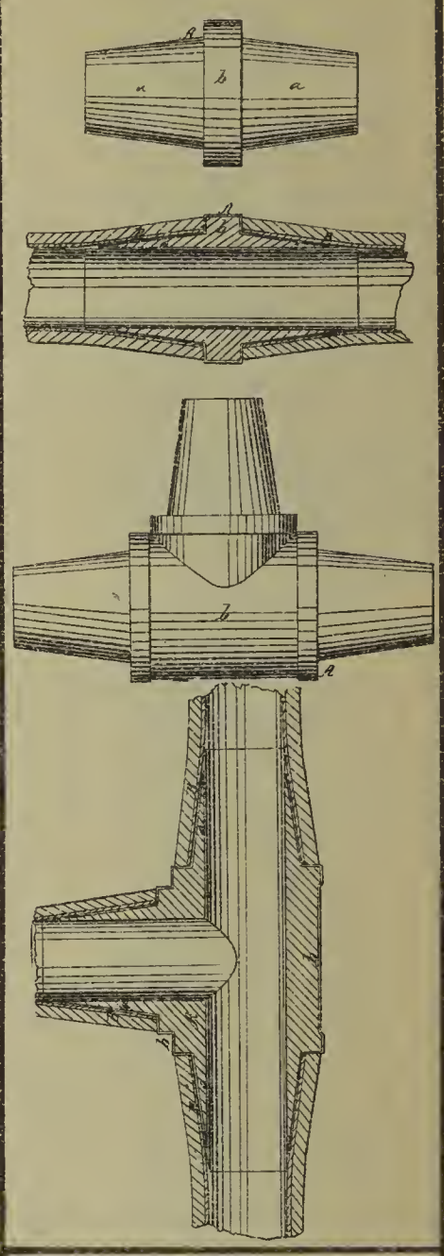
102,441. J. SIDDONS.
METALLIC ROOFING.



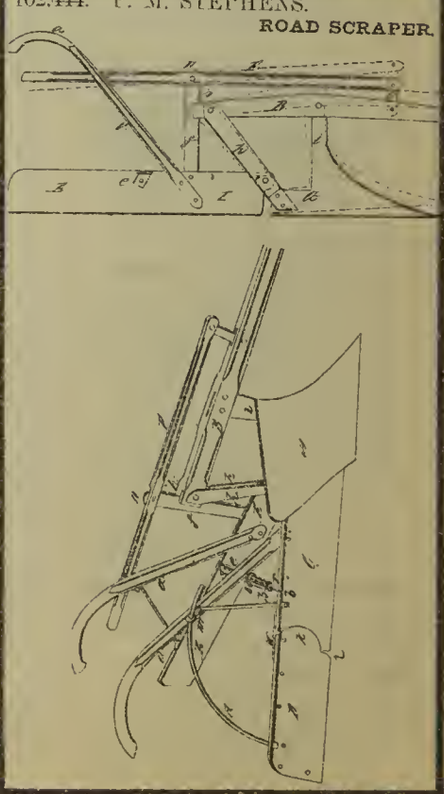
102,442. J. A. SINCLAIR.
PUMP.



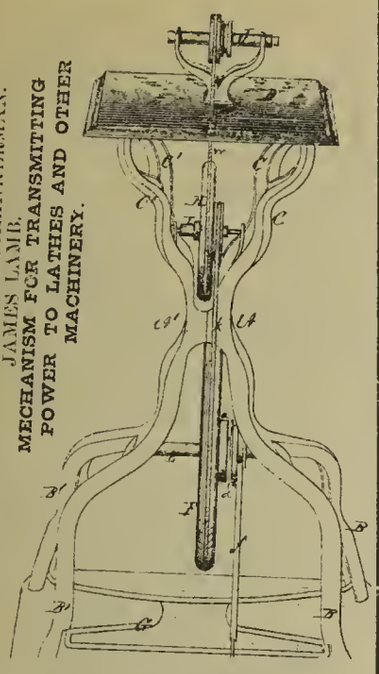
102,443. I. SMITH.
CONNECTION FOR LEAD PIPE JOINTS



102,444. P. M. STEPHENS.
ROAD SCRAPER.



102,445, JAS. F. STEWART.
FREDRICH KLINKERMAN.
JAMES LAMB.
MECHANISM FOR TRANSMITTING POWER TO LATHES AND OTHER MACHINERY.



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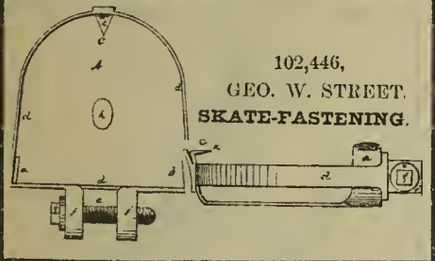
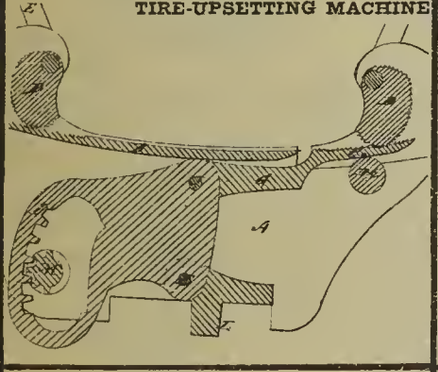
GEO. W. STREET.
SKATE-FASTENING.

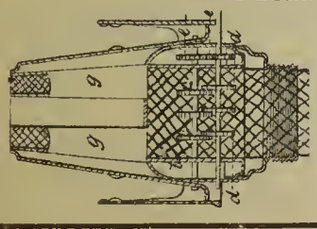


102,447,
JOHN G. STREET.
MACHINE-BELTING.

102,448, THOMAS SULLIVAN.
TIRE-UPSETTING MACHINE.



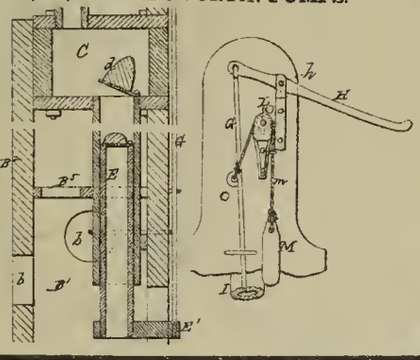
102,449, ALVIN TAPLIN.
LAMP-BURNERS.



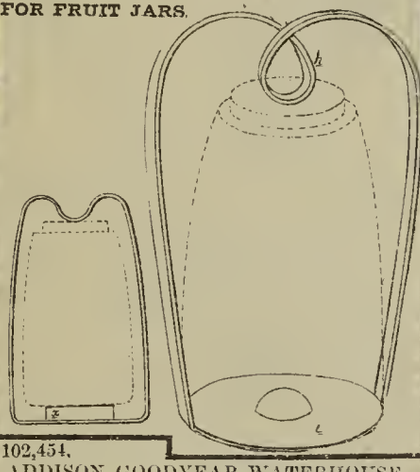
102,450, WILLIAM A. TORREY.
PREVENTING MILDEW AND DECAY IN SAILS, AWNINGS, TENTS, TARPAULINS, AND OTHER ARTICLES AND FABRICS.

102,451, GEO. D. VOLKMAR.
METAL-ROOF PROTECTOR

102,452, H. WADSWORTH. PUMPS.



102,453. W. P. WALTER. HOLDER FOR FRUIT JARS.



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ADDISON GOODYEAR WATERHOUSE.
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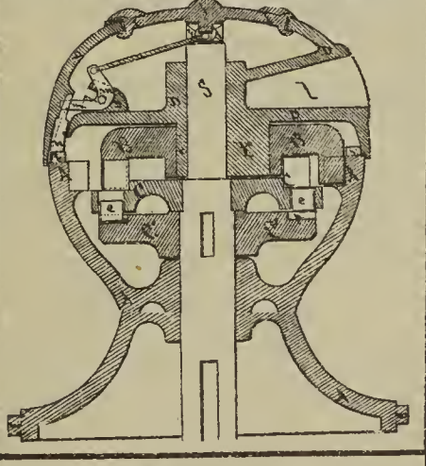
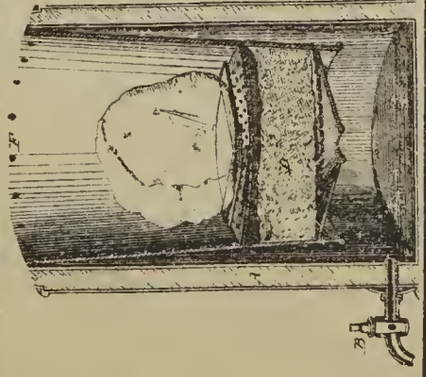
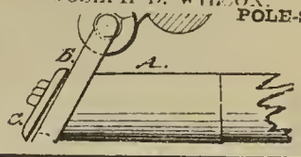


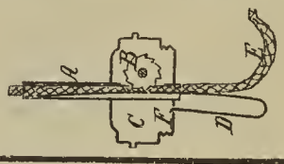
102,455, JAMES E. WHITE.
COMBINED FILTER AND COOLER.



102,456. CHARLES W. WILCOX.
JOSEPH D. WILCOX.
POLE-SOCKET.



102,457, J. D. WILLOUGHBY.
LAMP-BURNERS.



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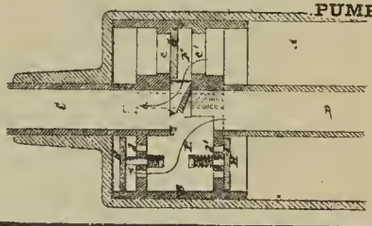
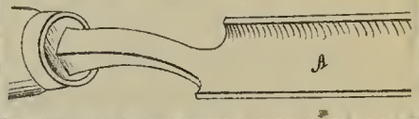
PUMPS.

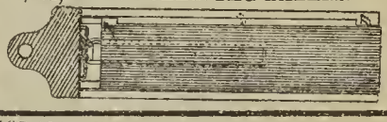


102,459, JAS. F. WOOD. GOUGE.



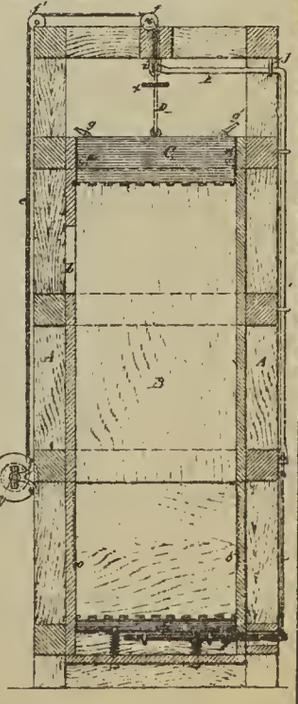
102,460, OSCAR D. WOODBURY.
BRUSHES.

102,461, D. D. FOLEY. TAG-LABELS.

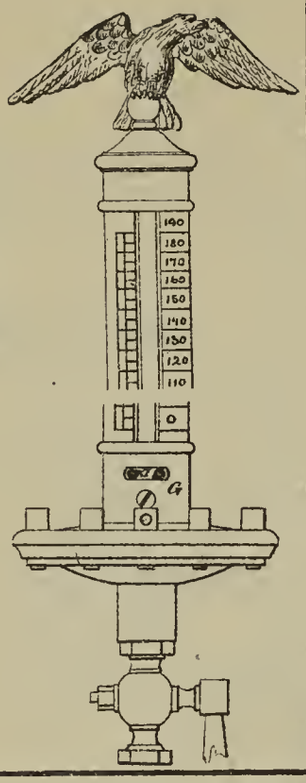


102,462. R. M. HERMANCE.
COOKING STOVE.

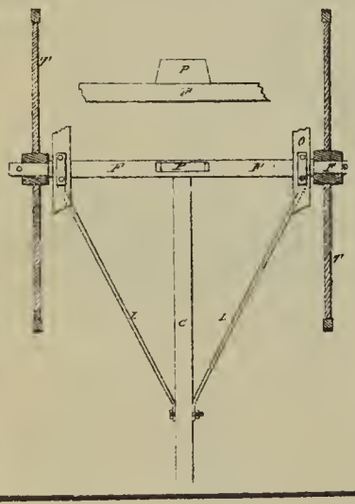
102,463, HENRY R. WALTON.
HAY AND COTTON-PRESSES.



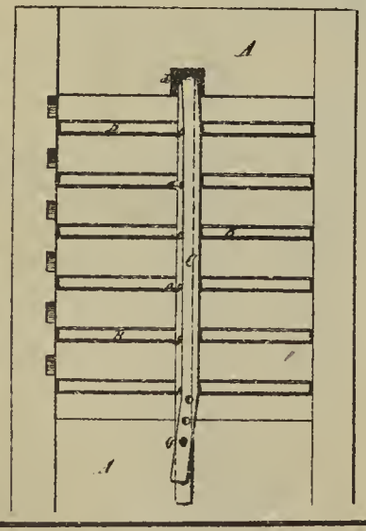
102,464, MATTHEW E. CAMPFIELD. ADJUSTMENT OF MERCURIAL PRESSURE-GAUGES.



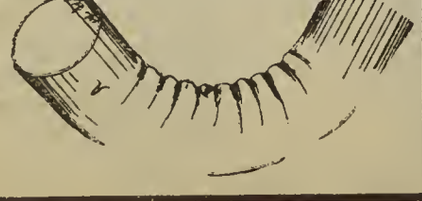
3,932. JULIUS GERBER. CULTIVATORS



3,933. STEPHEN HEBRON. WINDOW-BLINDS



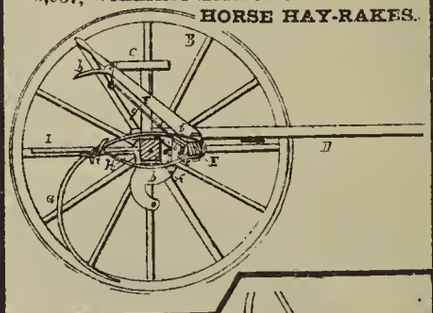
3,934 C. HOELLER. STOVE-PIPE ELBOWS.



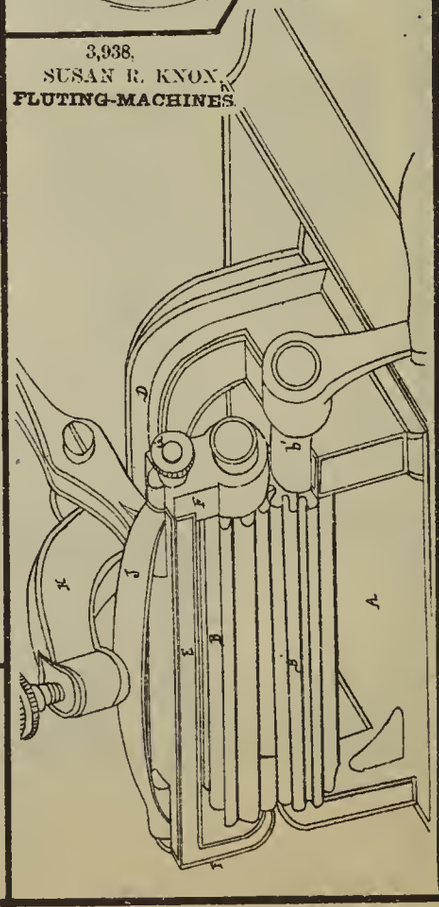
3,935. JAMES C. WADE. SHUTTLE FOR SEWING-MACHINE.

3,936 CHARLES P. EAGER. VENTILATED HORSE-COVER.

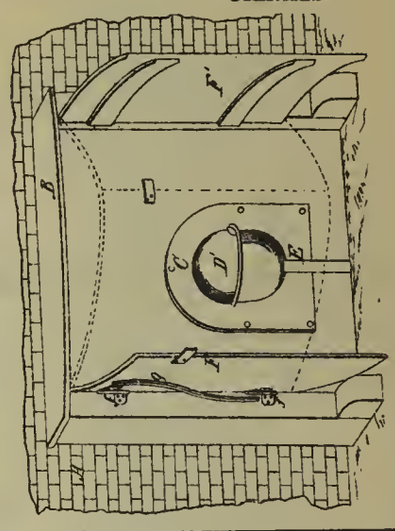
3,937, WILLIAM EMMONS. HORSE HAY-RAKES.



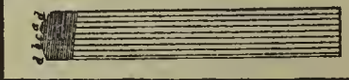
3,938. SUSAN R. KNOX. FLUTING-MACHINES.



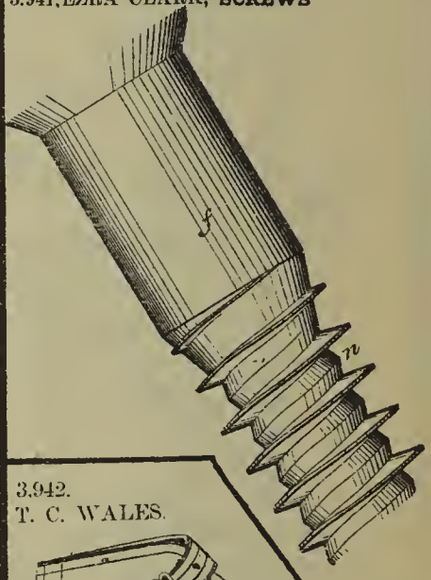
3,939. SAMUEL MALES. URINALS.



3,940 EZRA CLARK. TOOL FOR CUTTING SCREW-THREADS.



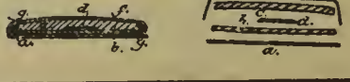
3,941, EZRA CLARK, SCREWS



3,942. T. C. WALES. WATER PROOF SHOE.

3,943. E. B. WALKER. BUTTER WORKER.

3,944, WILLIAM WILLIAMS. INSOLE FOR BOOTS AND SHOES.



ILLUSTRATIONS OF PATENTS

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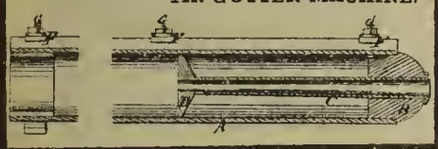
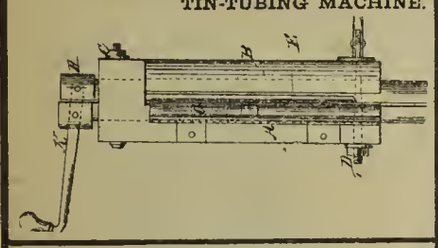
MAY 3, 1870.

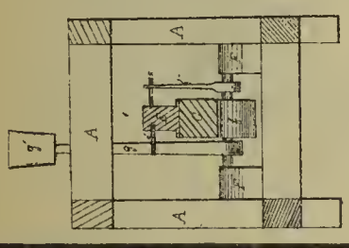
102,465, J. N. ADAMS.
TIN-GUTTER MACHINE.



102,466, J. N. ADAMS.
TIN-TUBING MACHINE.

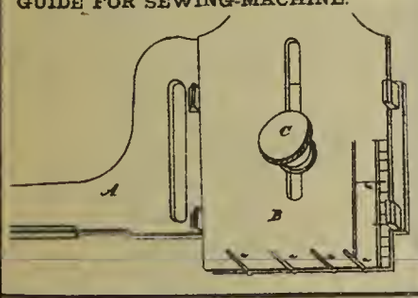


102,467, M. PASCAL ADAMS.
STAVE-DRESSING MACHINE.

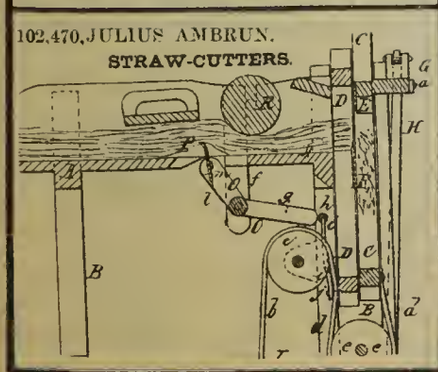


102,468, J. D. ALVORD.
DIES FOR DRAWING WIRE.

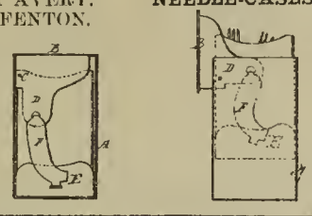
102,469, J. S. ALTER.
GUIDE FOR SEWING-MACHINE.



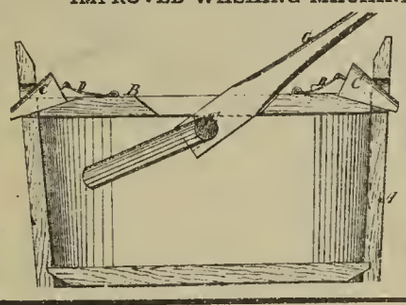
102,470, JULIUS AMBRUN.
STRAW-CUTTERS.



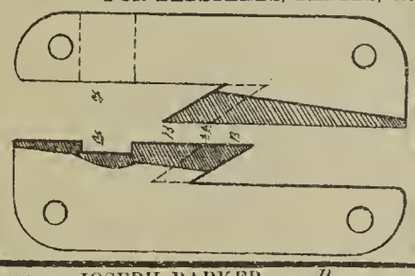
WILLIAM AVERY.
ALBERT FENTON.
NEEDLE-CASES.
102,471.



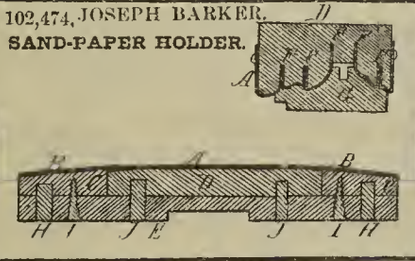
102,472, WILLIAM BADGER.
IMPROVED WASHING-MACHINE.



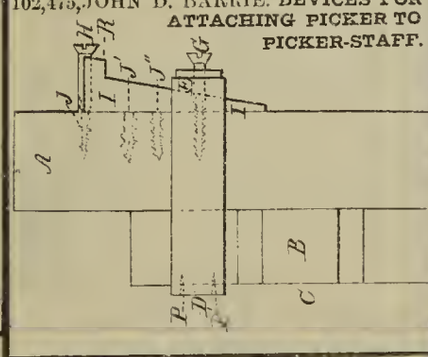
102,473, JAMES M. BAIRD.
IMPROVED FASTENER FOR BEDSTEADS, TABLES, &c.



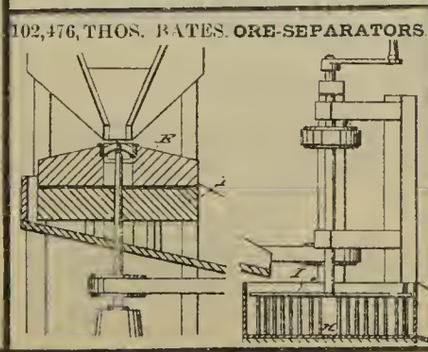
102,474, JOSEPH BARKER.
SAND-PAPER HOLDER.



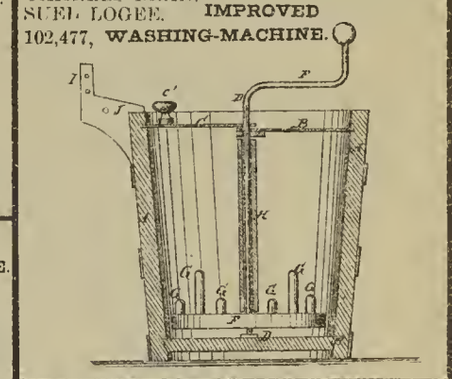
102,475, JOHN D. BARRIE.
DEVICES FOR ATTACHING PICKER TO PICKER-STAFF.



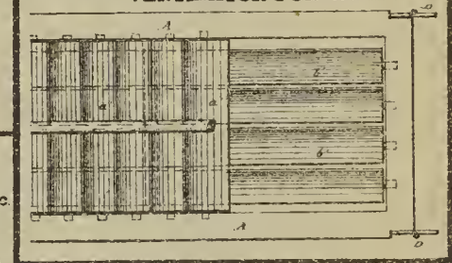
102,476, THOS. BATES.
ORE-SEPARATORS.



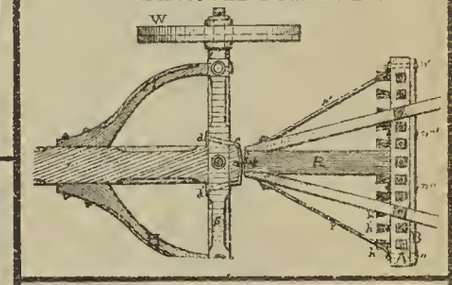
CHARLES BEAN.
SUEL LOGEE.
IMPROVED WASHING-MACHINE.
102,477,



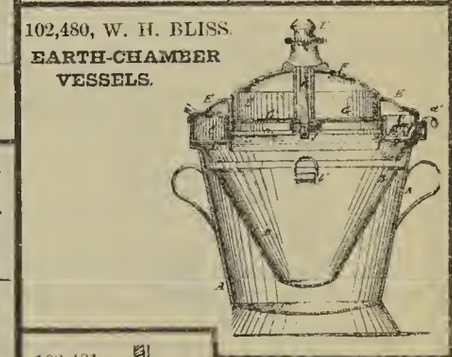
102,478, WILLIAM C. BETTS.
VENTILATOR FOR WINDOWS.



102,479, JOSEPH H. BILLMEYER.
IMPROVED POTATO-DIGGER.



102,480, W. H. BLISS.
EARTH-CHAMBER VESSELS.



102,481, CHARLES A. BOONE.
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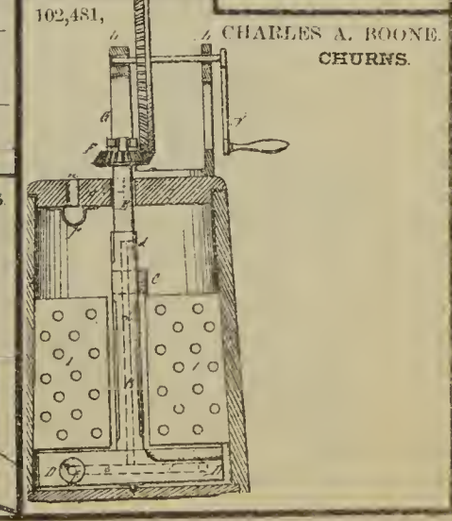
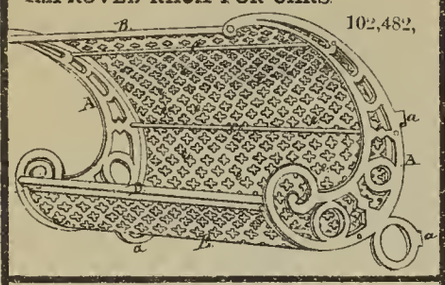
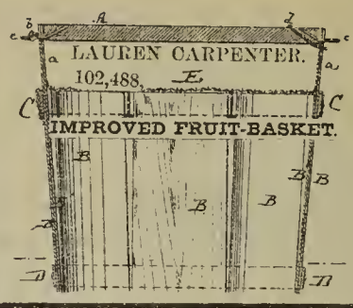


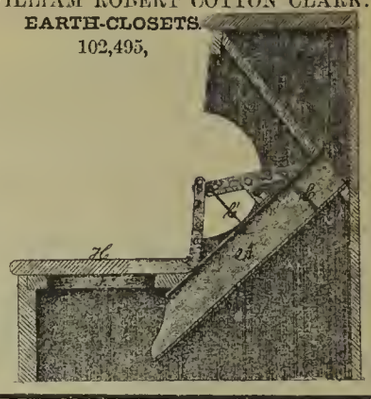
ALBERT BRIDGES.
IMPROVED RACK FOR CARS.
102,482,



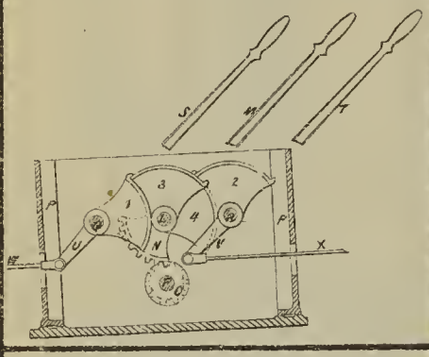
LAUREN CARPENTER.
102,488,
IMPROVED FRUIT-BASKET.



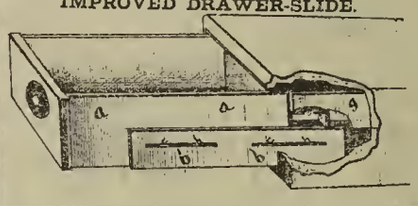
WILLIAM ROBERT COTTON CLARK.
EARTH-CLOSETS.
102,495,



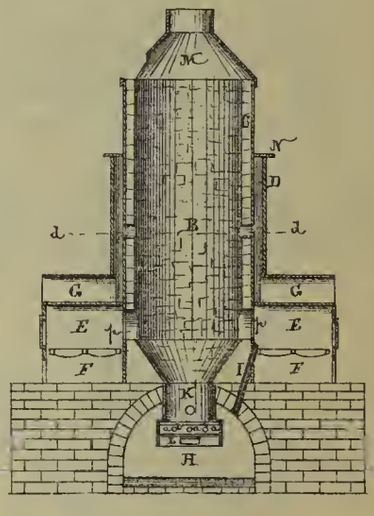
102,483, JOHN BRUNTON.
WORKING AND LOCKING
RAILWAY-SWITCHES AND SIGNALS.



102,489, JOHN L. CHAPMAN.
IMPROVED DRAWER-SLIDE.

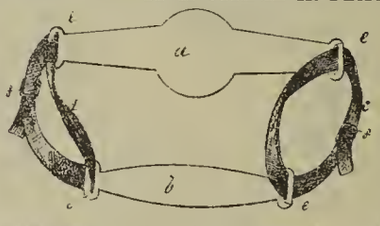


102,496. J. CLARKSON AND
G. W. DECKER. LIMEKILN.

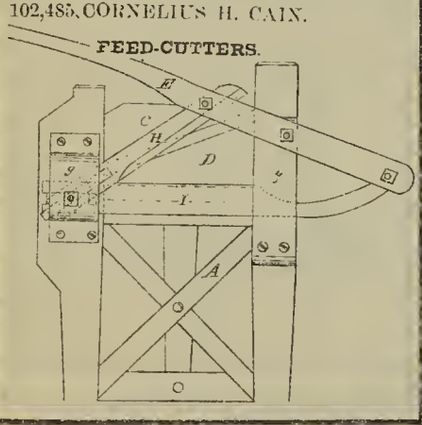


102,484, WILLIAM M. BRYANT.
PREPARING THE PITH OF
CORN-STALKS FOR USE IN THE ARTS.

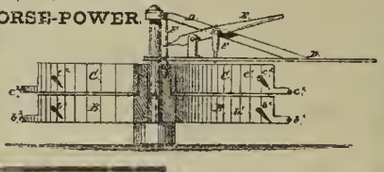
102,490, AMOS S. CHESEBROUGH.
SECURING THE FEATURES
OF A CORPSE IN PLACE



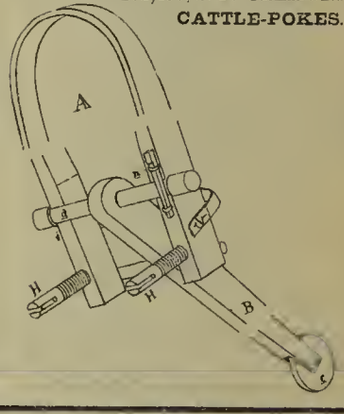
102,485, CORNELIUS H. CAIN.
FEED-CUTTERS.

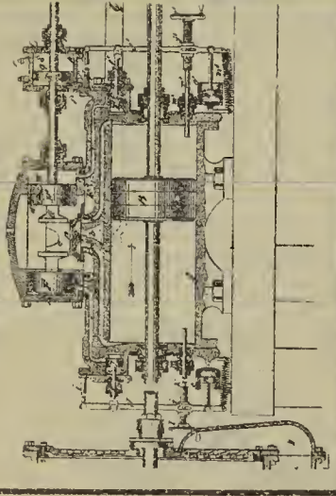


102,491, PHILO W. CLARK.
HORSE-POWER.

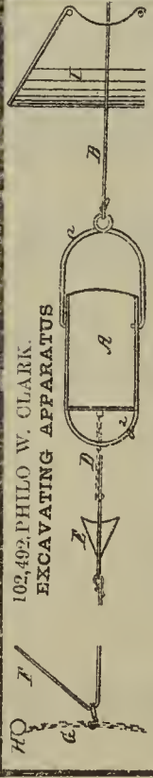


102,497, S. P. CLEMONS.
CATTLE-POKES.





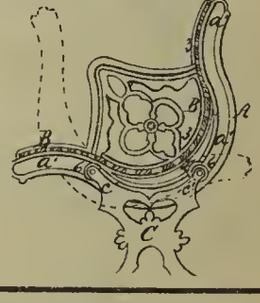
102,486, A. S. CAMERON.
DIRECT-ACTING ENGINE.

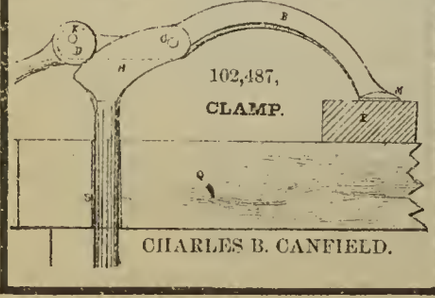


102,492, PHILO W. CLARK.
EXCAVATING APPARATUS

WILLIAM CLARK.
LIFTING-JACKS.
102,493,

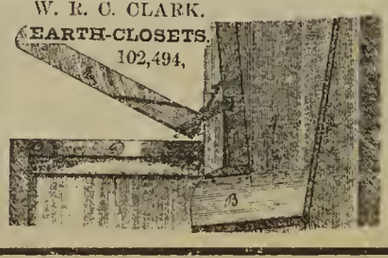
THOS. J. CLOSE. REVERSIBLE SEATS
102,498, FOR RAILWAY-CARS.

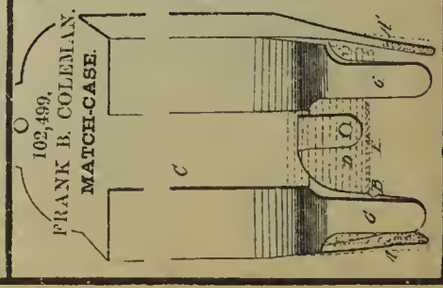




102,487,
CLAMP.
CHARLES B. CANFIELD.

W. R. C. CLARK.
EARTH-CLOSETS.
102,494,

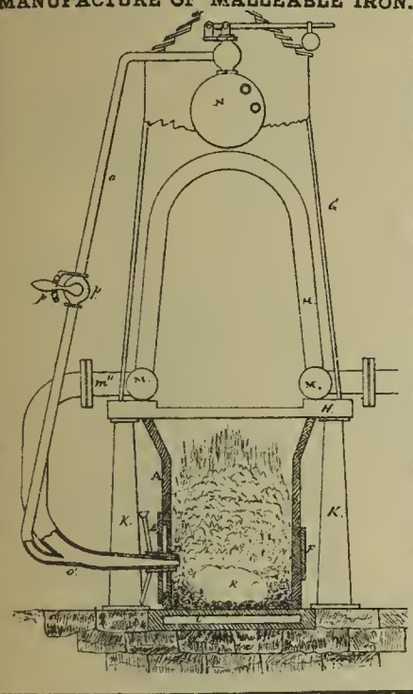




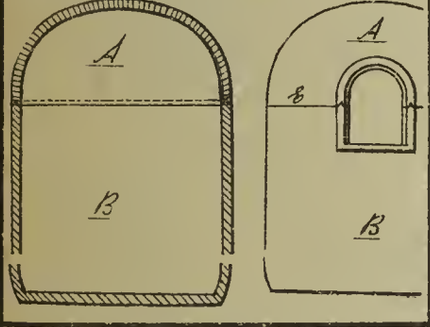
102,499,
FRANK B. COLEMAN.
MATCH-CASE.

102,500, JOHN COLEMAN.
CAR-COUPLINGS.

102,501, JOHN J. G. COLLINS.
MANUFACTURE OF MALLEABLE IRON.

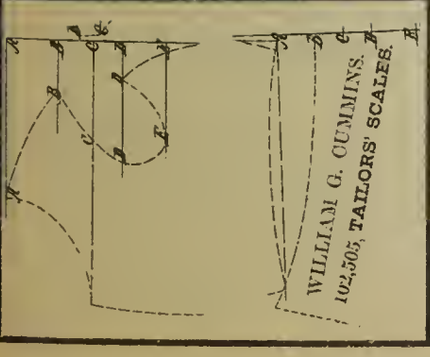


ROY COMBS.
HENRY J. LEASURE.
102,502, POTS FOR SMELTING GLASS.



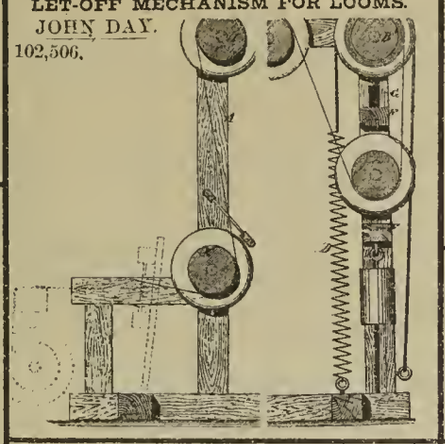
102,503. M. COOKE. APPARATUS FOR BLASTING LOGS.

102,504, GEORGE COPELAND.
HORSESHOES

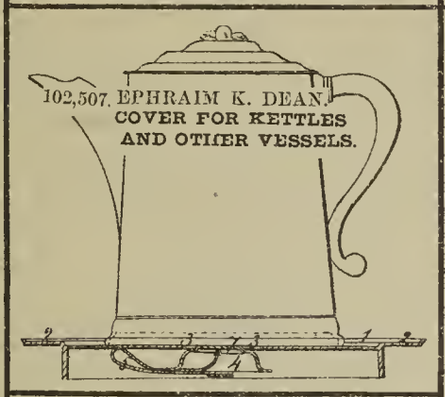


WILLIAM G. CUMMINS.
102,505, TAILORS' SCALES.

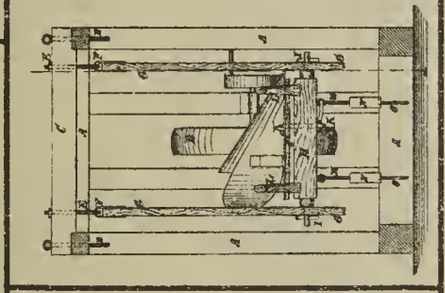
LET-OFF MECHANISM FOR LOOMS.
JOHN DAY.
102,506.



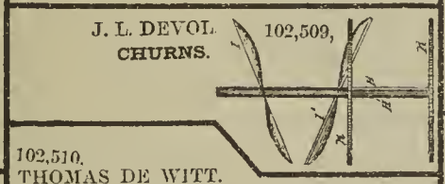
102,507, EPHRAIM K. DEAN.
COVER FOR KETTLES AND OTHER VESSELS.



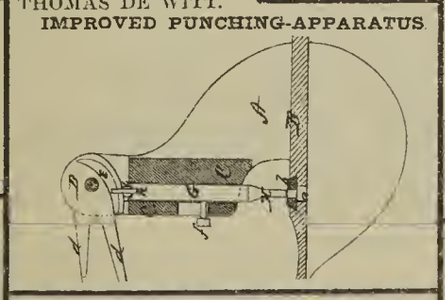
102,508, MICHAEL DEVAULT.
PLOW-GRINDER AND POLISHER.



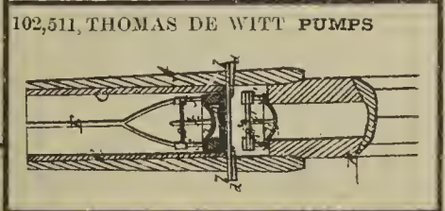
J. L. DEVOL.
CHURNS.
102,509,

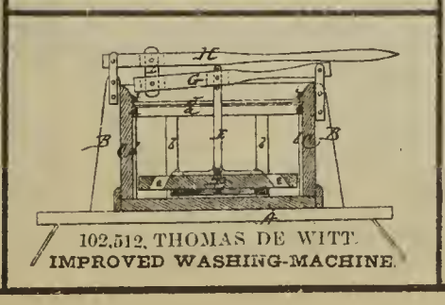


102,510.
THOMAS DE WITT.
IMPROVED PUNCHING-APPARATUS.



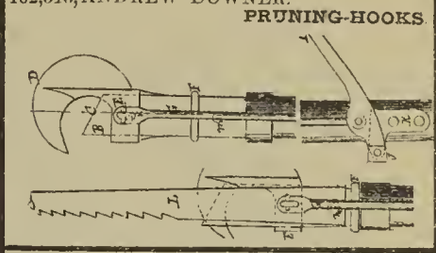
102,511, THOMAS DE WITT. PUMPS





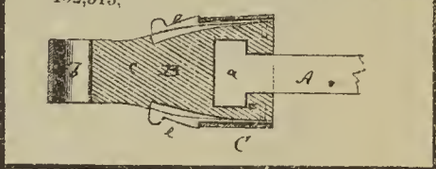
102,512, THOMAS DE WITT.
IMPROVED WASHING-MACHINE.

102,513, ANDREW DOWNER.
PRUNING-HOOKS.

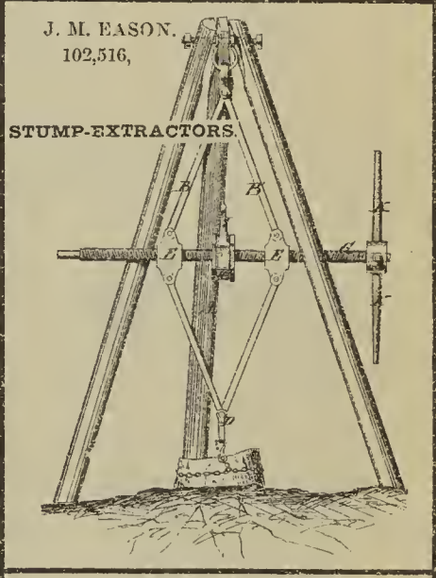


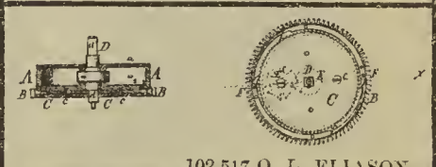
WM. F. DRAPER.
JOSEPH B. BANCROFT.
102,514, IMPROVED SPINDLE-STEP CAP.

CHARLES G. DUDLEY.
JACOB GULDEN.
SHAFT OR POLE-COUPLING FOR CARRIAGES.
102,515,

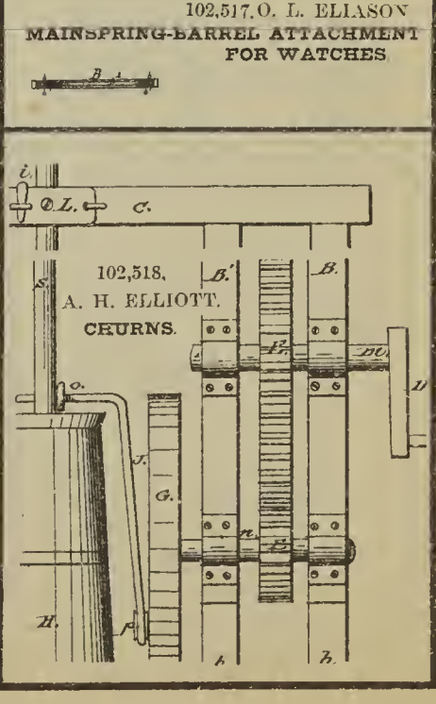


J. M. EASON.
102,516,
STUMP-EXTRACTORS.



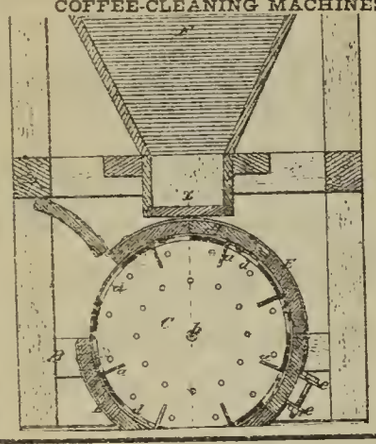


102,517, O. L. ELLASON
MAINSPRING-BARREL ATTACHMENT FOR WATCHES.

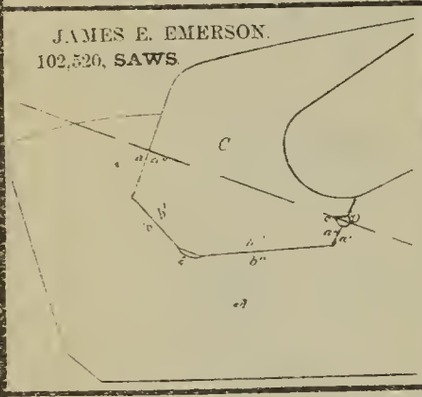


102,518,
A. H. ELLIOTT.
CHURNS.

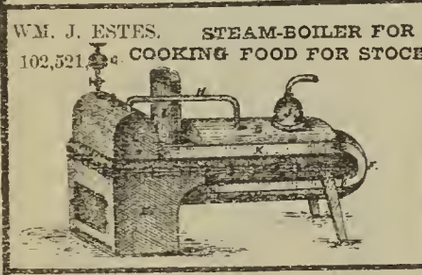
102,519, WM. H. ELTON.
COFFEE-CLEANING MACHINES.



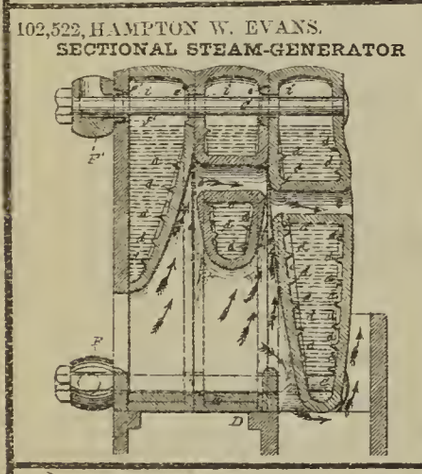
JAMES E. EMERSON.
102,520, SAWS.



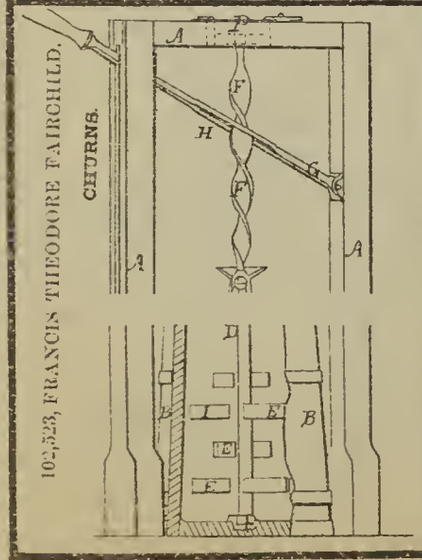
WM. J. ESTES. STEAM-BOILER FOR
102,521, COOKING FOOD FOR STOCK.

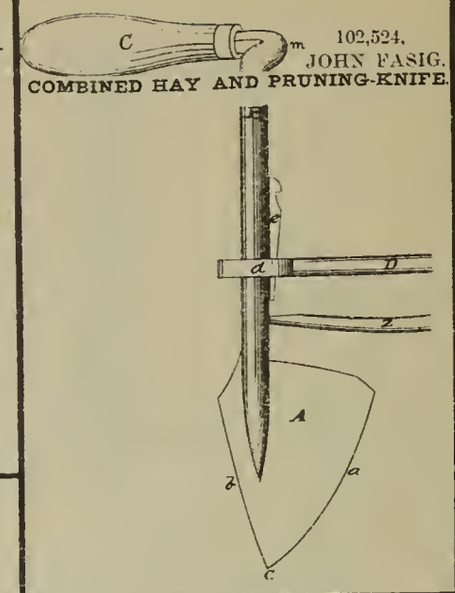


102,522, HAMPTON W. EVANS.
SECTIONAL STEAM-GENERATOR



102,523, FRANCIS THEODORE FAIRCHILD.
CHURNS.

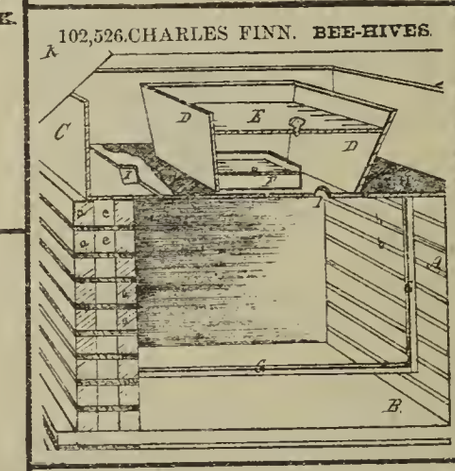




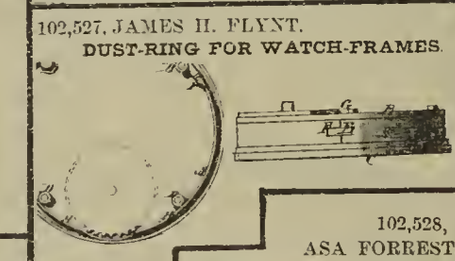
102,524,
JOHN FASIG.
COMBINED HAY AND PRUNING-KNIFE.

VANDERLYN HOWARD FELT.
102,525, HARVESTER-RAKES.

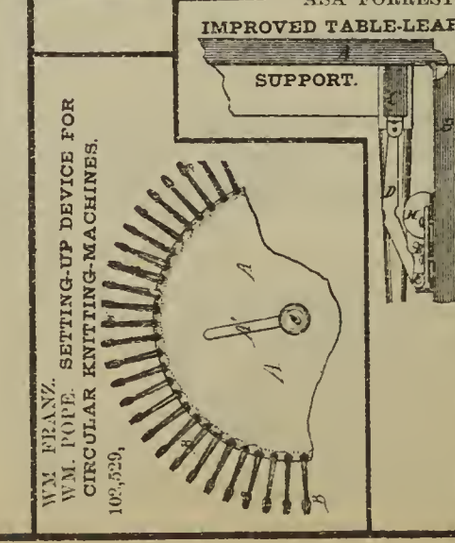
102,526. CHARLES FINN. BEE-HIVES.



102,527, JAMES H. FLYNT.
DUST-RING FOR WATCH-FRAMES.

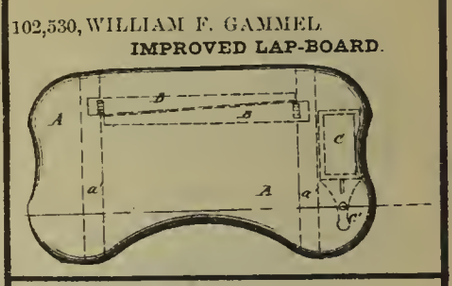


102,528,
ASA FORREST.
IMPROVED TABLE-LEAF
SUPPORT.

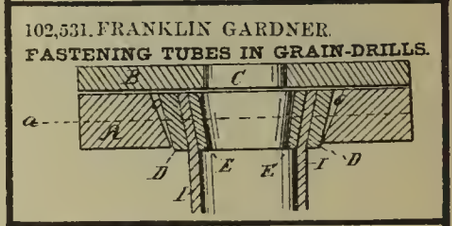


WM. FRANZ.
WM. POPE. SETTING-UP DEVICE FOR
CIRCULAR KNITTING-MACHINES.
102,529,

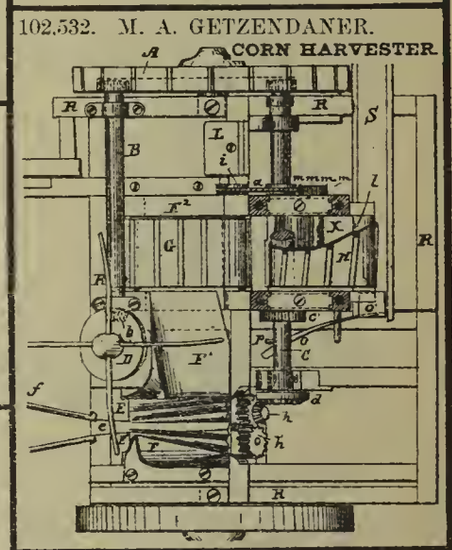
102,530, WILLIAM F. GAMMEL.
IMPROVED LAP-BOARD.



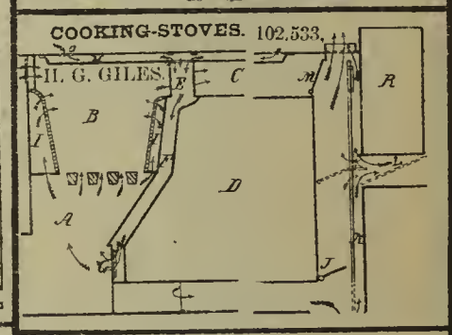
102,531. FRANKLIN GARDNER.
FASTENING TUBES IN GRAIN-DRILLS.



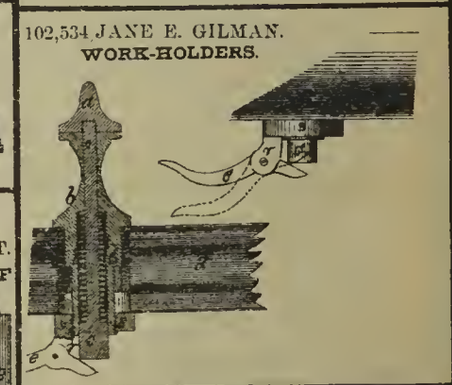
102,532. M. A. GETZENDANER.
CORN HARVESTER.



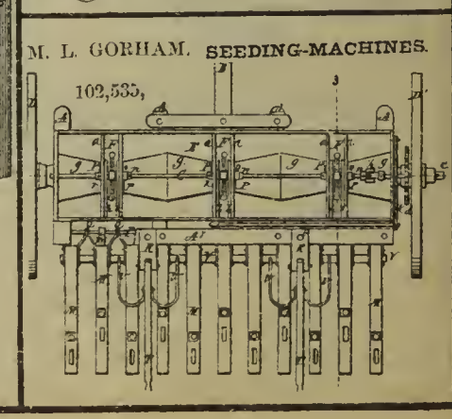
COOKING-STOVES. 102,533.
H. G. GILES.



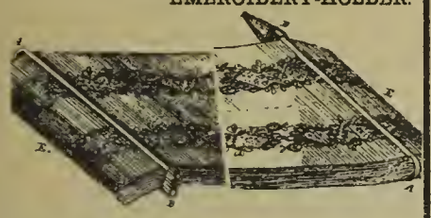
102,534 JANE E. GILMAN.
WORK-HOLDERS.



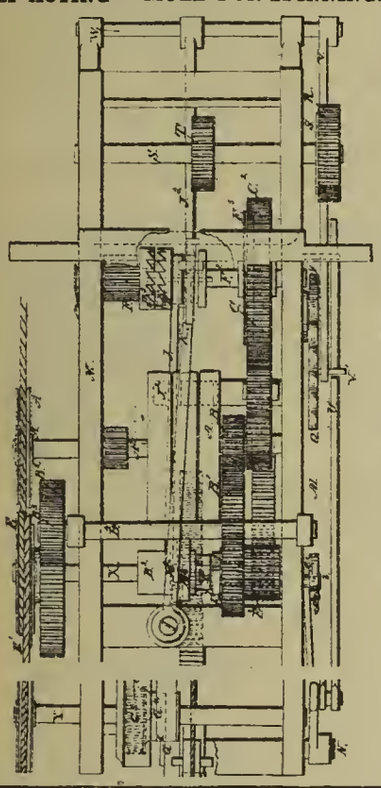
M. L. GORHAM. SEEDING-MACHINES.
102,535,



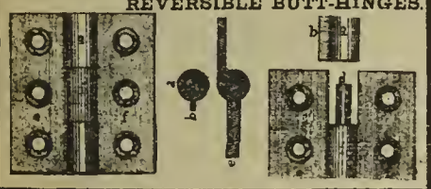
102,536, H. GUNDAKER. IMPROVED EMBROIDERY-HOLDER.



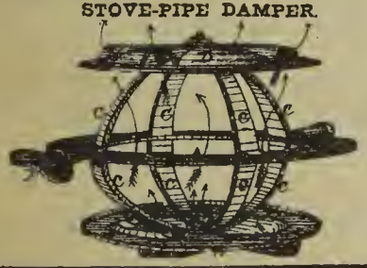
102,537, WILLIAM his × mark HACKLEY.
SELF-ACTING MULE FOR SPINNING.



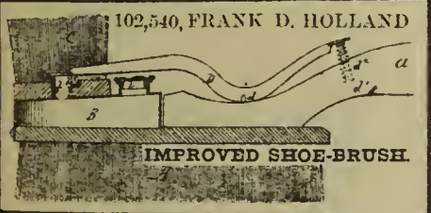
102,538, D. FRANK HALE.
REVERSIBLE BUTT-HINGES.



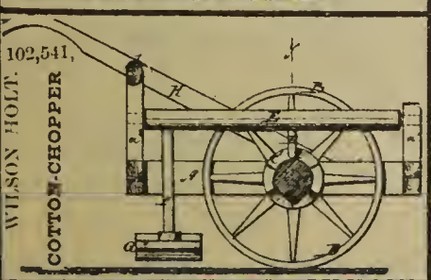
102,539, R. M. HERMANCE.
STOVE-PIPE DAMPER.

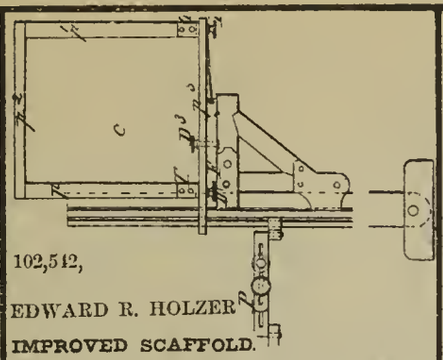


102,540, FRANK D. HOLLAND
IMPROVED SHOE-BRUSH.



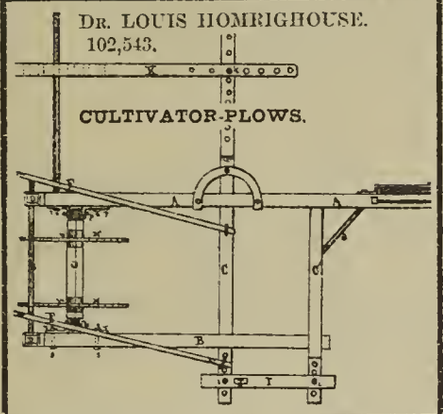
102,541, WILSON HOLT.
COTTON-CHOPPER



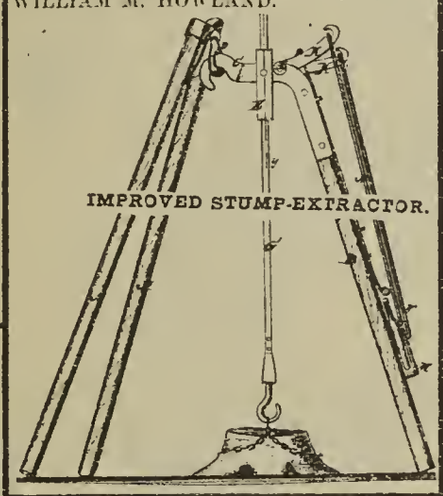


102,542,
EDWARD R. HOLZER
IMPROVED SCAFFOLD.

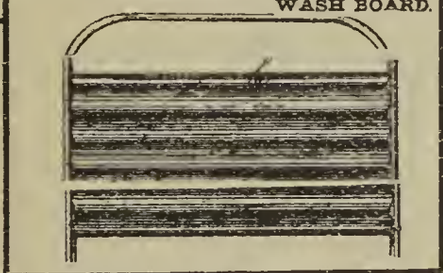
DR. LOUIS HOMRIGHOUSE.
102,543.
CULTIVATOR-PLOWS.



GEORGE L. HOWLAND.
WILLIAM M. HOWLAND. 102,544,
IMPROVED STUMP-EXTRACTOR.

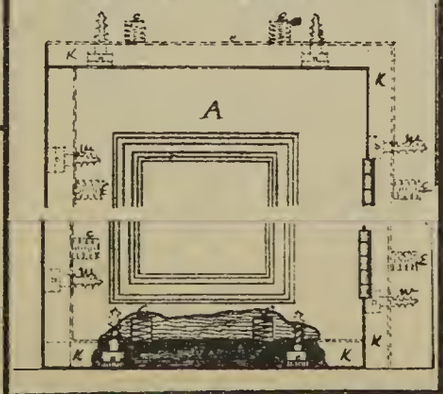


102,545. S. HUBBELL, JR.
WASH BOARD.

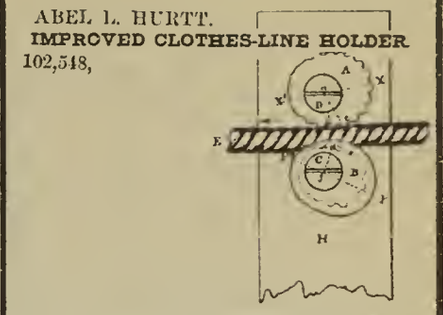


102,546, CHAS. WAGER HULL.
MANUFACTURE OF SOAP

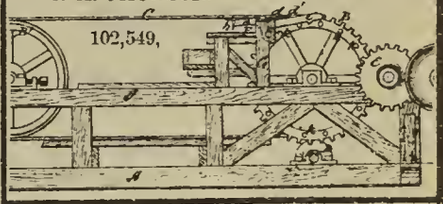
102,547, JAMES H. HULL.
IMPROVED WEATHER-STRIP



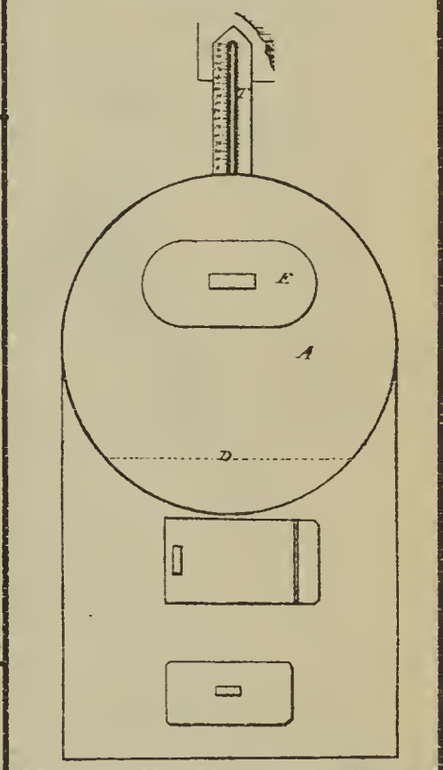
ABEL L. HURTT.
IMPROVED CLOTHES-LINE HOLDER
102,548,



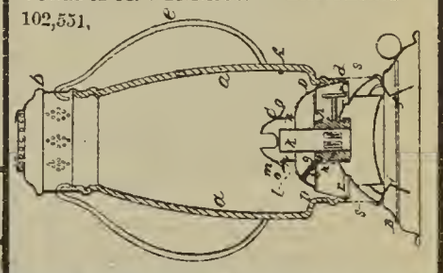
C. A. JACKSON. TOBACCO-ROLLER
102,549,

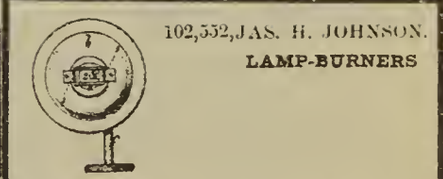


JABEZ JENKINS. IMPROVED PROCESS
102,550, FOR TEMPERING STEEL.



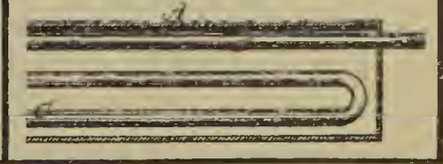
JOSEPH M. JENNESS. LANTERNS.
102,551,



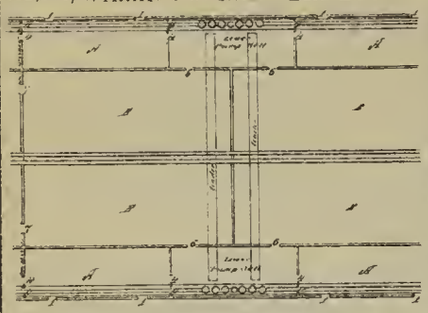


102,552, JAS. H. JOHNSON.
LAMP-BURNERS

102,553, LUTHER A. JOHNSON.
CAUL FOR LAYING VENEERS.

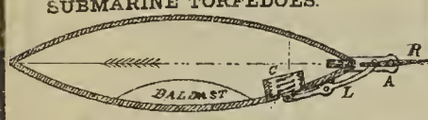


102,554, WILLIAM JONES. DRY-DOCKS.

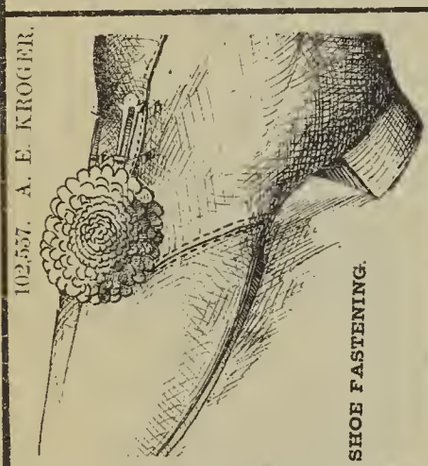


102,555, E. W. KIMBALL. SOLDERING FIRE-POT.

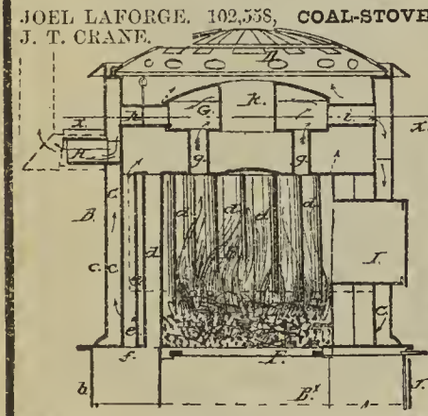
102,556, W. R. KING. SUBMARINE TORPEDOES.



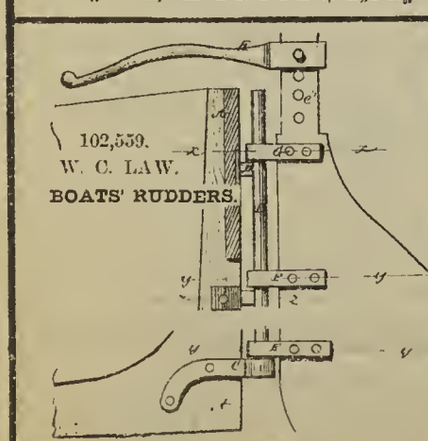
102,557. A. E. KROGER. SHOE FASTENING.



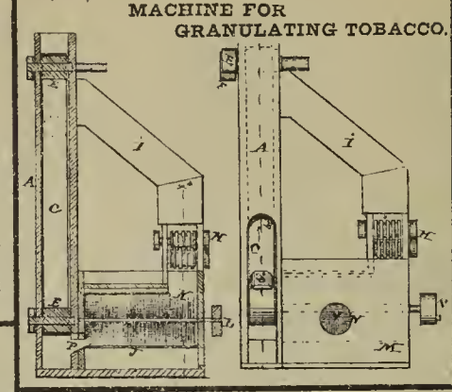
JOEL LAFORGE. 102,558, COAL-STOVE.
J. T. CRANE.



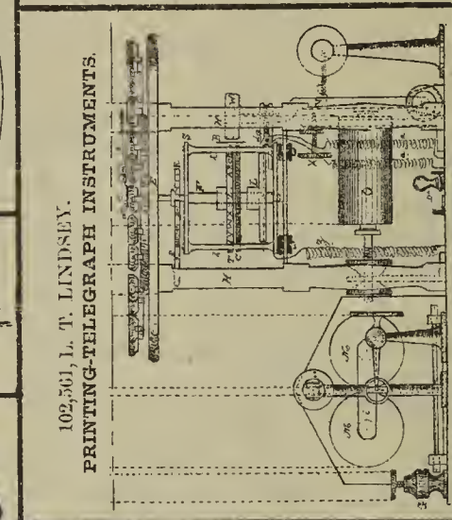
102,559.
W. C. LAW.
BOATS' RUDDERS.



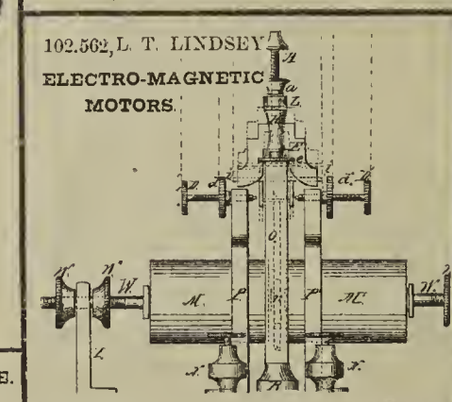
102,560, CHRISTIAN H. LILIENTHAL
MACHINE FOR
GRANULATING TOBACCO.



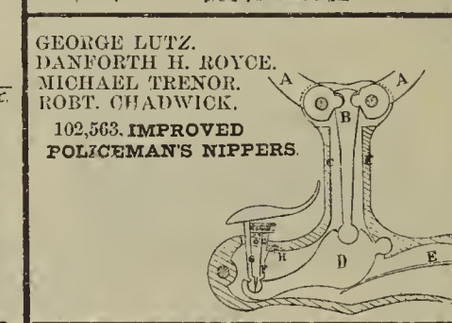
102,561, L. T. LINDSEY.
PRINTING-TELEGRAPH INSTRUMENTS.



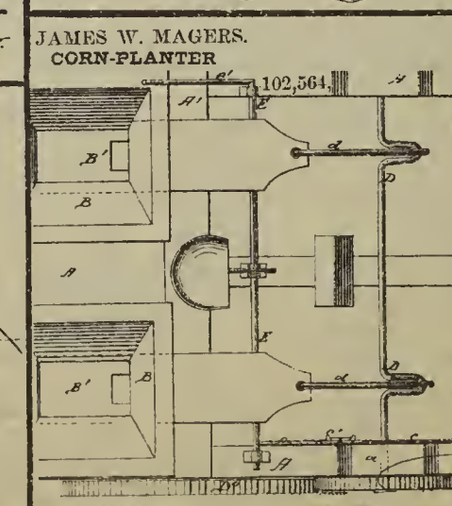
102,562, L. T. LINDSEY
ELECTRO-MAGNETIC
MOTORS.



GEORGE LUTZ.
DANFORTH H. ROYCE.
MICHAEL TRENOR.
ROBT. CHADWICK.
102,563. IMPROVED
POLICEMAN'S NIPPERS.

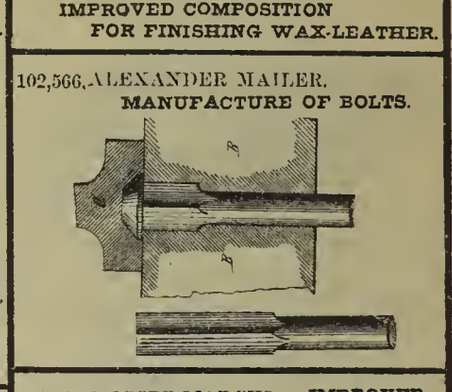


JAMES W. MAGERS.
CORN-PLANTER
102,564.



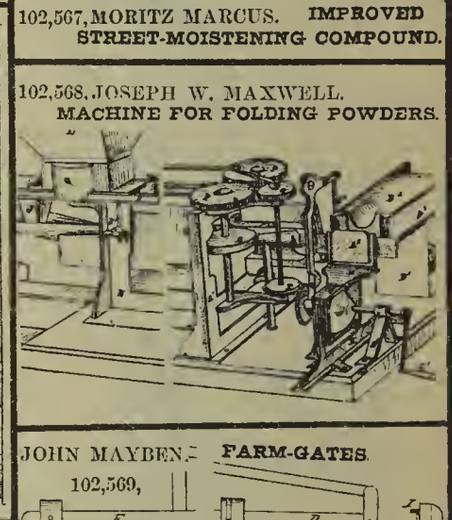
102,565. PATRICK MAGUIRE.
IMPROVED COMPOSITION
FOR FINISHING WAX-LEATHER.

102,566, ALEXANDER MAILER.
MANUFACTURE OF BOLTS.



102,567, MORITZ MARCUS. IMPROVED
STREET-MOISTENING COMPOUND.

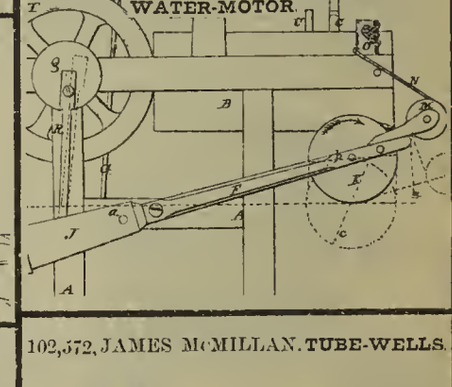
102,568, JOSEPH W. MAXWELL.
MACHINE FOR FOLDING POWDERS.



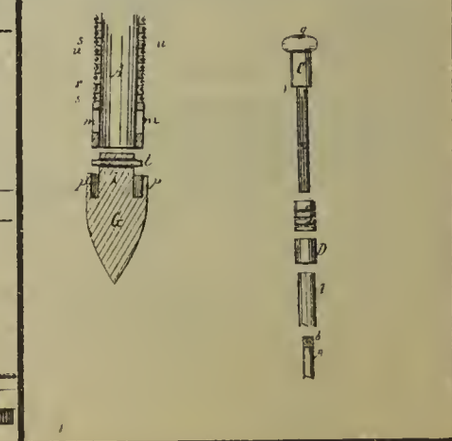
JOHN MAYBEN. FARM-GATES.
102,569,

102,570, JOHN McGILL.
IMPROVED COMPOUND FOR
DRESSING TEXTILE FABRICS

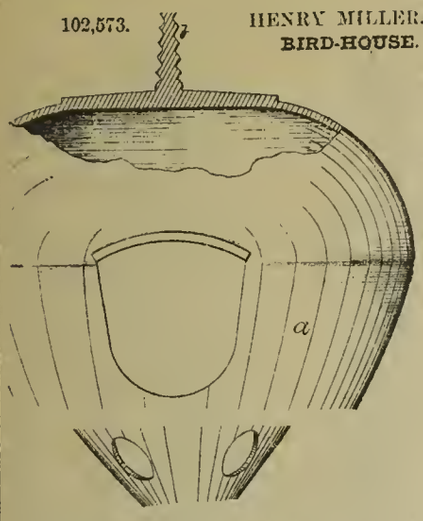
WILLIAM McGINNISS. 102,571,
WATER-MOTOR.



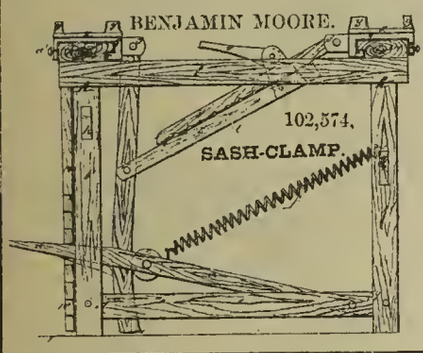
102,572, JAMES McMILLAN. TUBE-WELLS.



102,573. HENRY MILLER. BIRD-HOUSE.

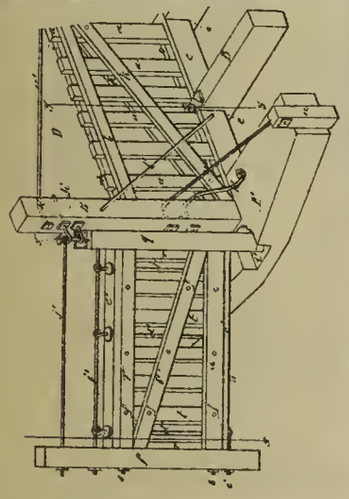


BENJAMIN MOORE. 102,574. SASH-CLAMP.

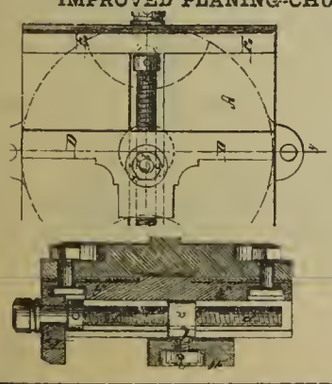


102,575, CHARLES C. MOORE. IMPROVED CORD-CATCH.

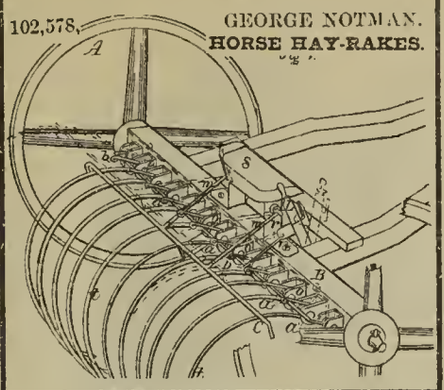
102,576, ENOCH MUIRHEID. IMPROVEMENT IN FENCE AND GATE.



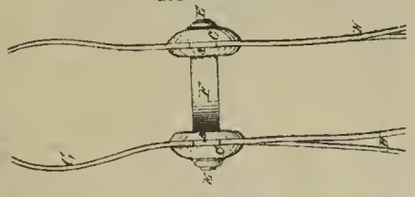
102,577, AUGUSTUS NEWELL. WILLIAM PIM. IMPROVED PLANING-CHUCK.



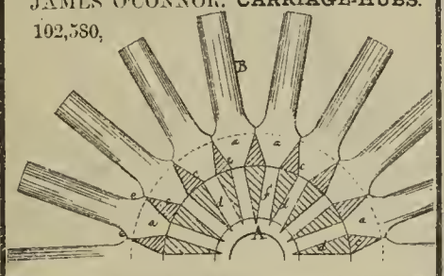
102,578, GEORGE NOTMAN. HORSE HAY-RAKES.



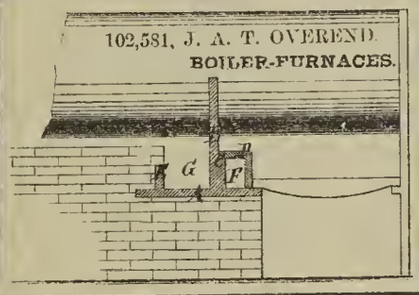
102,579, JAMES O. BRIEN. ROSETTES FOR BRIDLES.



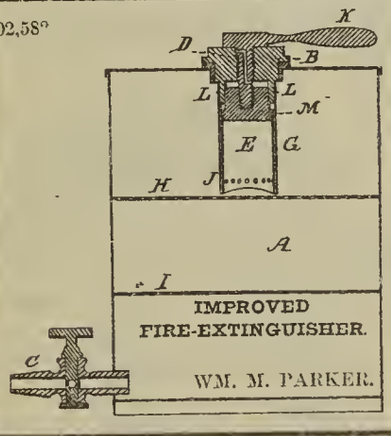
JAMES O'CONNOR. CARRIAGE-HUBS. 102,580.



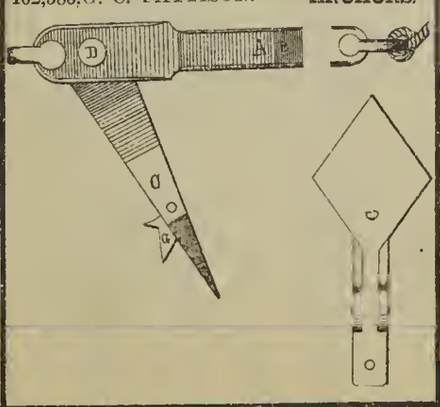
102,581, J. A. T. OVEREND. BOILER-FURNACES.



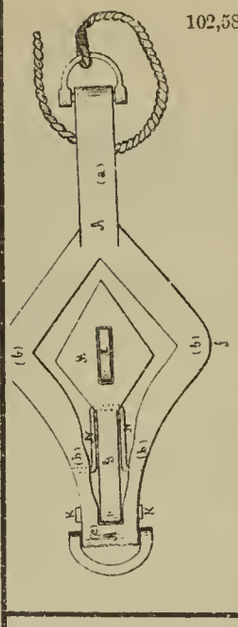
102,582 IMPROVED FIRE-EXTINGUISHER. WM. M. PARKER.



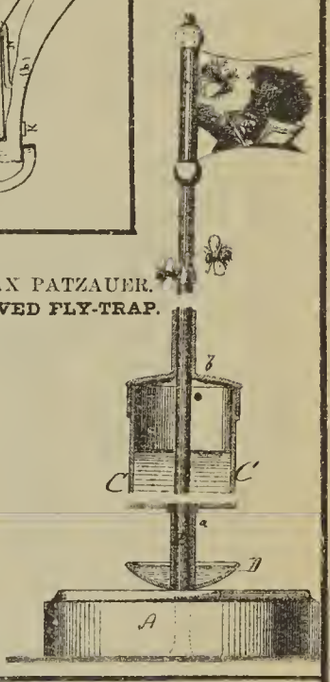
102,583, G. C. PATTISON. ANCHORS.



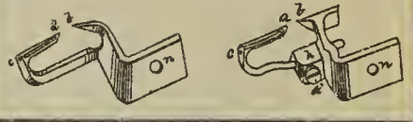
102,584, G. C. PATTISON. ANCHORS.



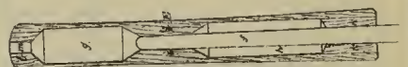
102,585, MAX PATZAUER. IMPROVED FLY-TRAP.



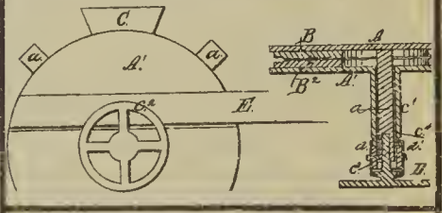
102,586, RUFUS H. PEABODY. SEWING-MACHINE.



102,587. O. PEARL. BOBBIN FOR SPINNING, &c.

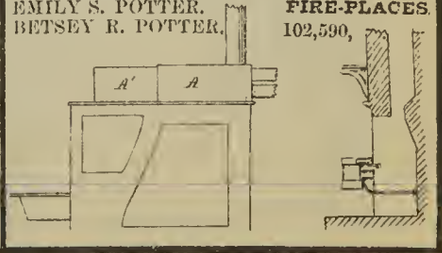


102,588, WALTER PECK. IMPROVED GRINDING-MILL.

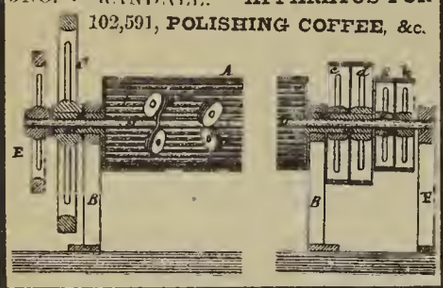


FRANK M. PICKERILL. IMPROVED 102,589, AUTOMATIC WAGON-BRAKE.

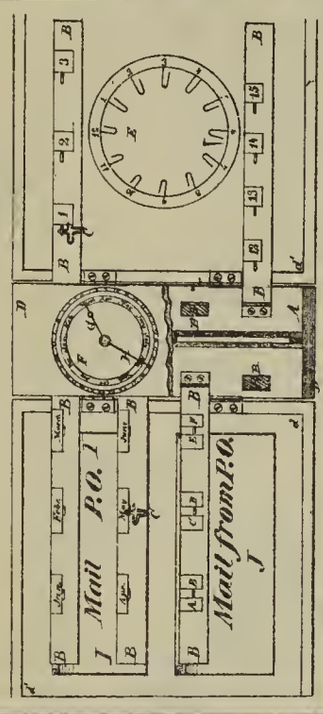
HEATING AND VENTILATING ATTACHMENT FOR STOVES AND FIRE-PLACES. EMILY S. POTTER. BETSEY R. POTTER. 102,590.

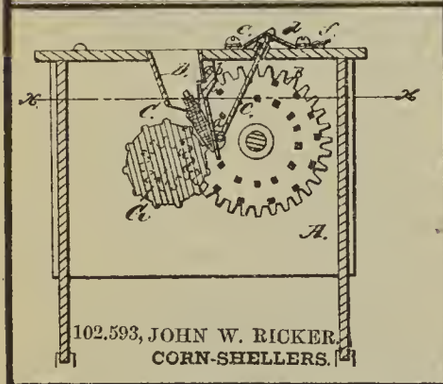


JNO. T. RANDALL. APPARATUS FOR
102,591, POLISHING COFFEE, &c.



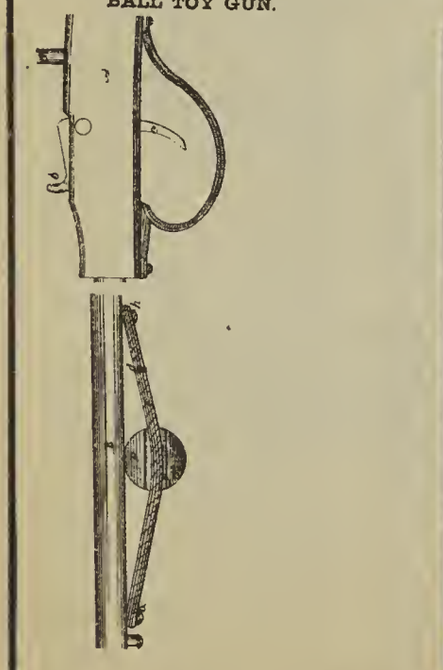
102,592, HENRY RENTCHLER.
OFFICE-REGISTER AND DIRECTORY.



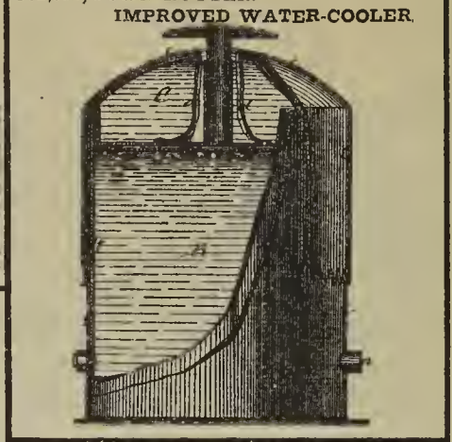


102.593, JOHN W. RICKER.
CORN-SHELLERS.

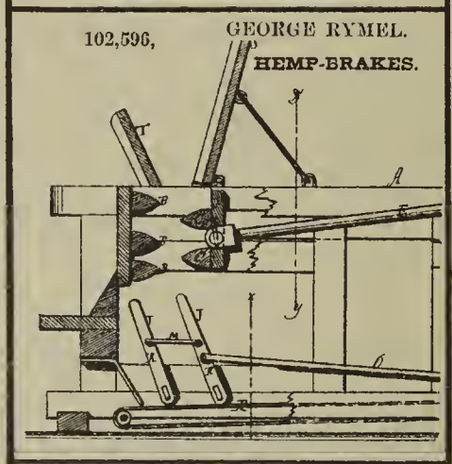
102,594, CHARLES ROBINSON.
BALL TOY GUN.



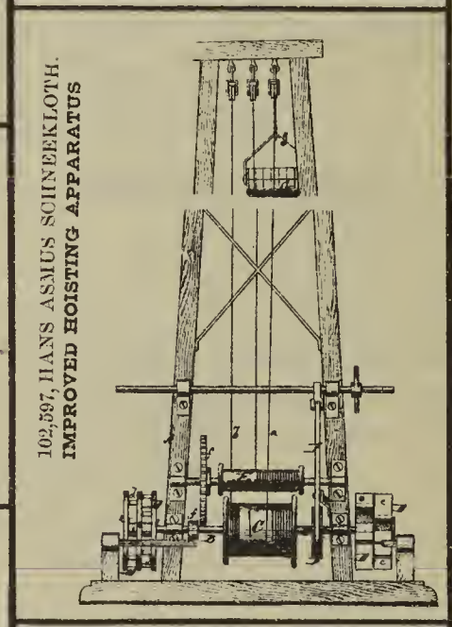
102,595, JOHN RUTTER.
IMPROVED WATER-COOLER.



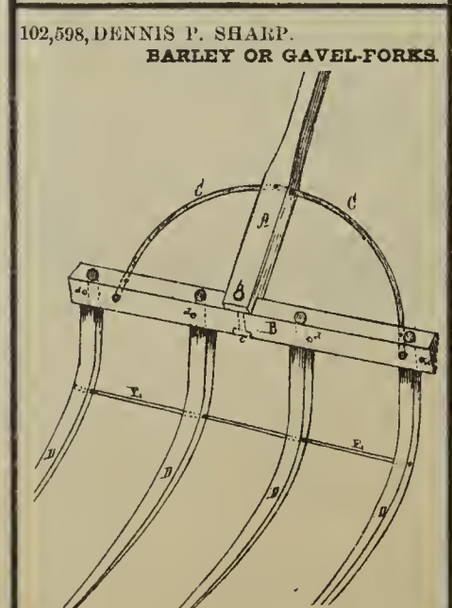
102,596, GEORGE RYMEL.
HEMP-BRAKES.



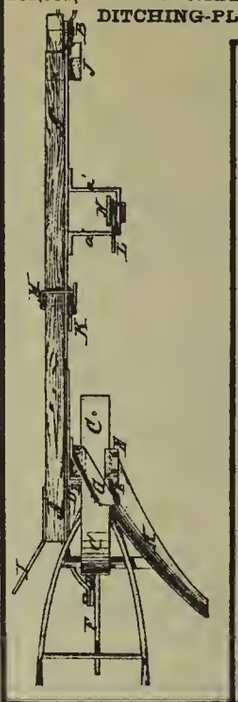
102,597, HANS ASMUS SCHNEEKLOTH.
IMPROVED HOISTING APPARATUS



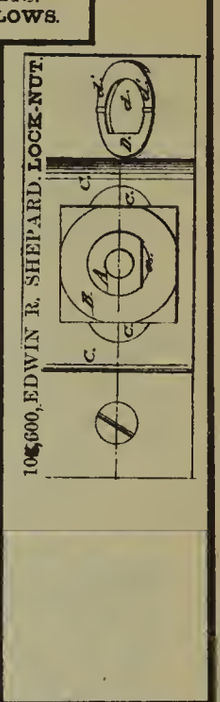
102,598, DENNIS P. SHARP.
BARLEY OR GAVEL-FORKS.



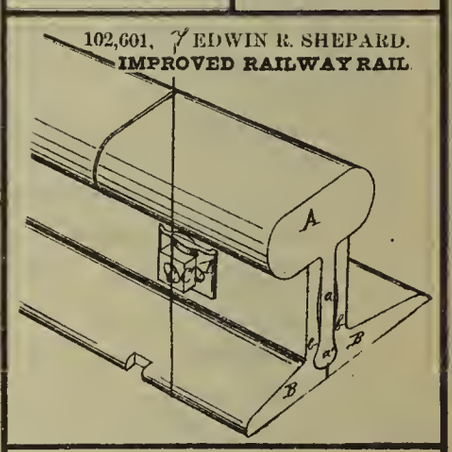
102,599, ISAAC S. SHEETS.
DITCHING-PLOWS.



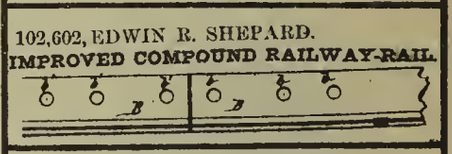
102,600, EDWIN R. SHEPARD. LOCK-NUT.



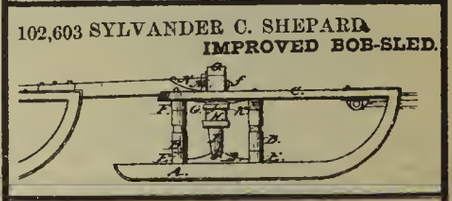
102,601, EDWIN R. SHEPARD.
IMPROVED RAILWAY RAIL.



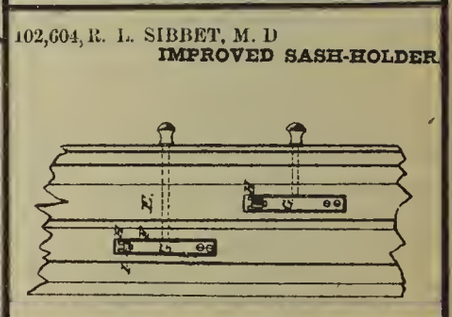
102,602, EDWIN R. SHEPARD.
IMPROVED COMPOUND RAILWAY-RAIL.



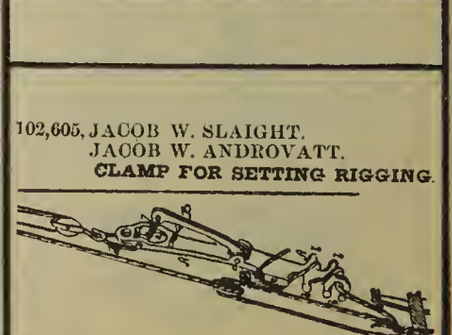
102,603 SYLVANDER C. SHEPARD.
IMPROVED BOB-SLED.



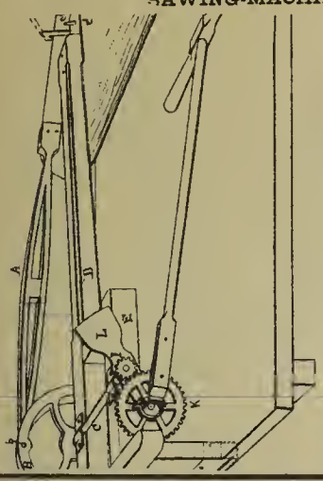
102,604, R. L. SIBBET, M. D
IMPROVED SASH-HOLDER.



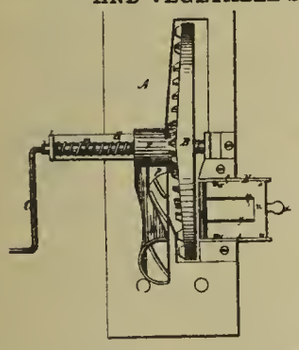
102,605, JACOB W. SLAIGHT.
JACOB W. ANDROVATT.
CLAMP FOR SETTING RIGGING.



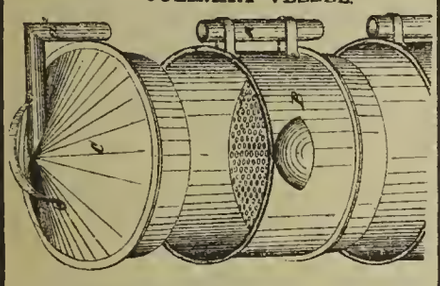
102,606, ADDISON SMITH.
SAWING-MACHINES



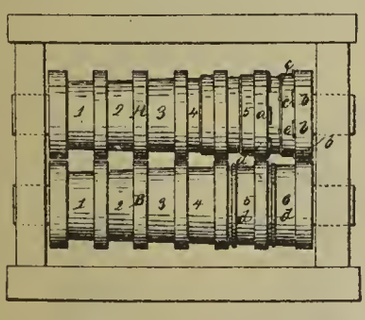
102,607, J. P. SMITH.
COMBINED CORN-SHELLER AND VEGETABLE-SLICER.



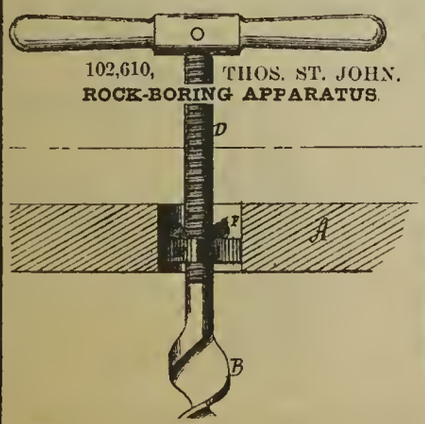
102,608, JOHN CORBETT SMITH
CULINARY VESSEL.



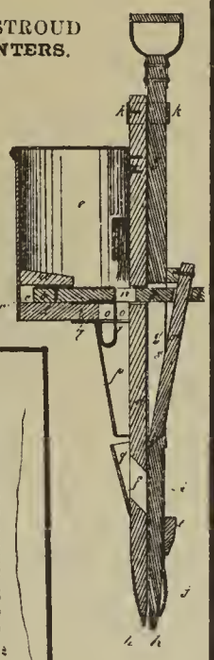
102,609, GEORGE A. SPRINGER.
IMPROVED ROLL FOR MAKING RAILS FOR STREET RAILWAYS



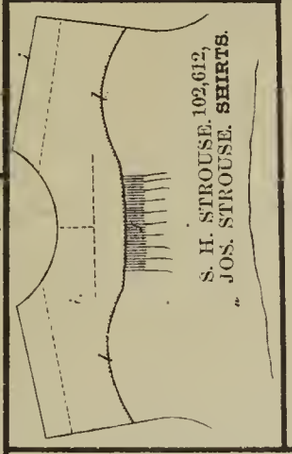
102,610, THOS. ST. JOHN.
ROCK-BORING APPARATUS.



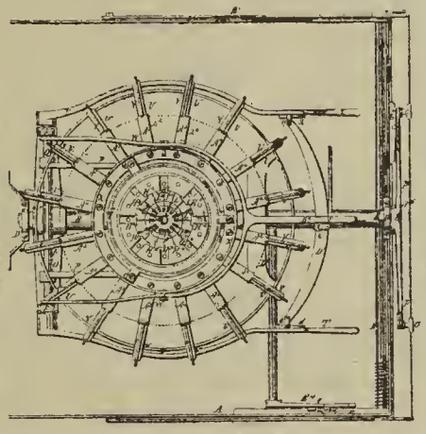
102,611, WILLIAM D. STROUD
HAND CORN-PLANTERS.



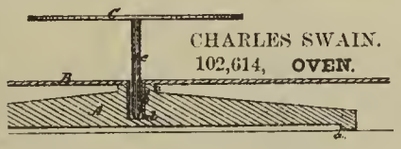
S. H. STROUSE, 102,612,
JOS. STROUSE. SHIRTS.



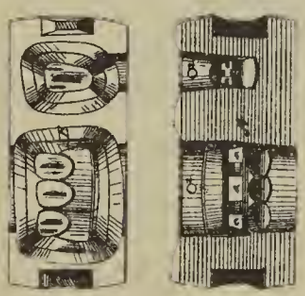
102,613, JACOB SURERUS, W. H. BEHRENS. HAT-BLOCKING MACHINES.



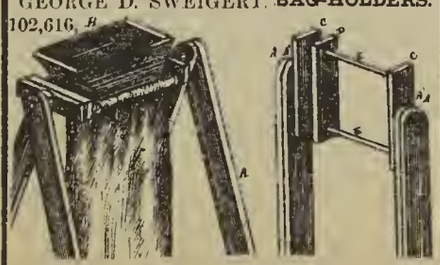
CHARLES SWAIN.
102,614, OVEN.



102,615, ELI SWEET.
MOLD FOR ARTIFICIAL TEETH.



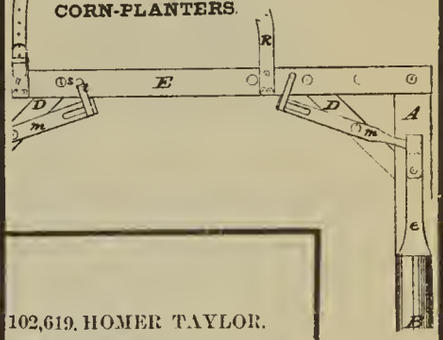
GEORGE D. SWEIGERT. BAG-HOLDERS.
102,616,



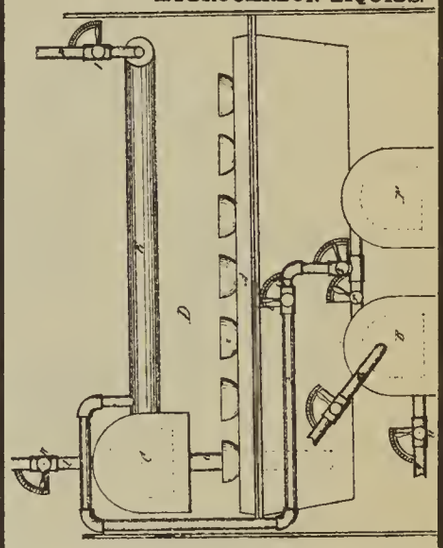
102,617, OWEN W. TAFT.

CARVING-KNIVES.

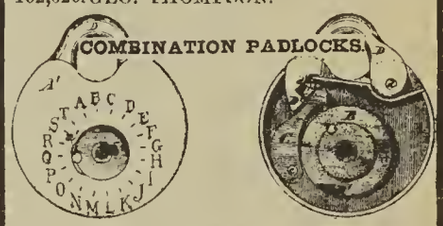
102,618, LEVI B. TARBOX.
CORN-PLANTERS.



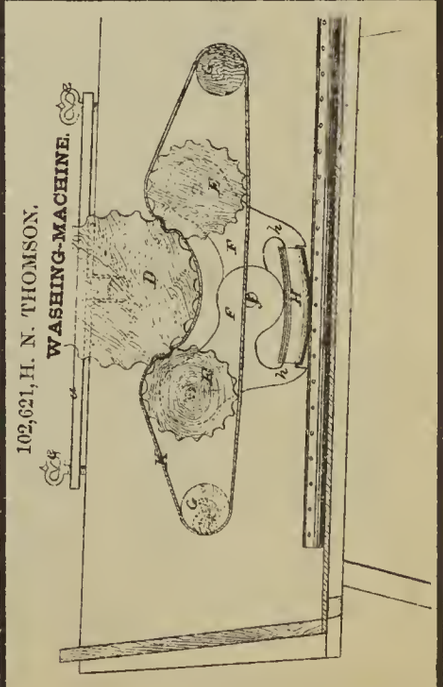
102,619, HOMER TAYLOR.
APPARATUS FOR THE COMBUSTION OF PETROLEUM AND OTHER HYDROCARBON LIQUIDS.



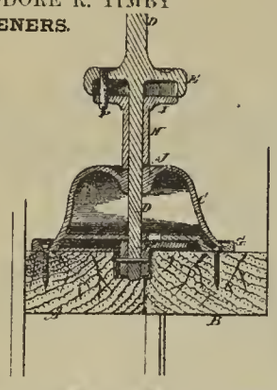
102,620, GEO. THOMPSON.
COMBINATION PADLOCKS.



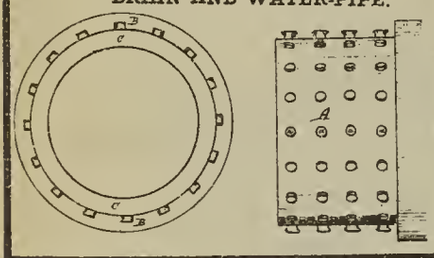
102,621, H. N. THOMSON.
WASHING-MACHINE.



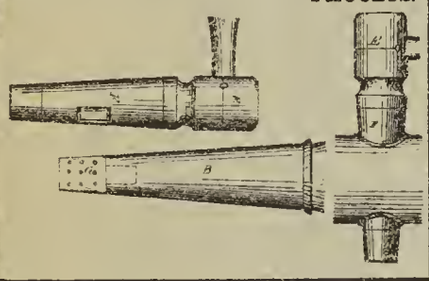
102,622, THEODORE R. TIMBY
SASH-FASTENERS.



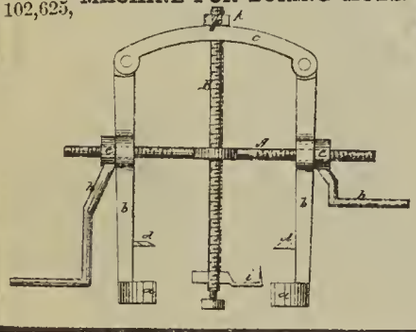
102,623, GEORGE H. TITCOMB.
JNO. P. CULVER.
DRAIN AND WATER-PIPE.



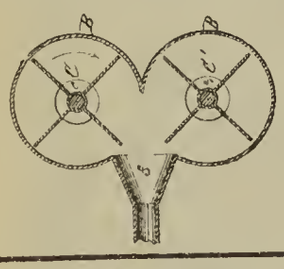
102,624, WILLIAM H. TRISSLER.
FAUCETS.



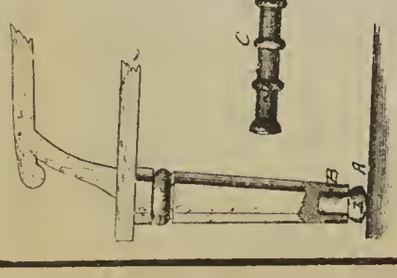
ABRAHAM his + mark TROUP.
102,625, MACHINE FOR BORING HUBS.



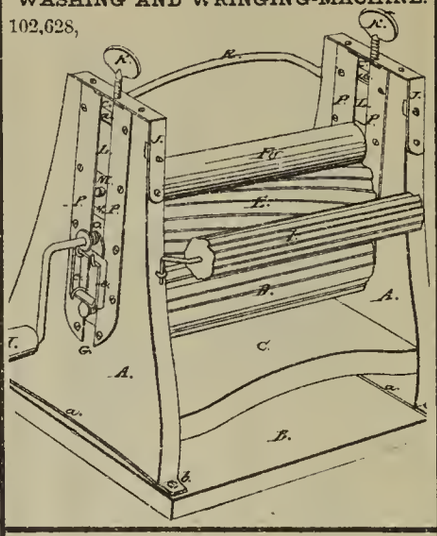
102,626, JOHN GEORGE TSCHEULIN.
BLOWERS FOR BLACKSMITHS' FORGES



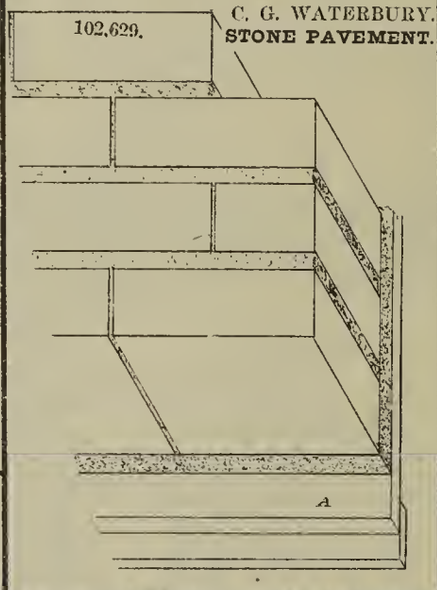
102,627, SILAS VAN PATTEN.
ELASTIC TIP FOR LEGS OF CHAIRS, &c.



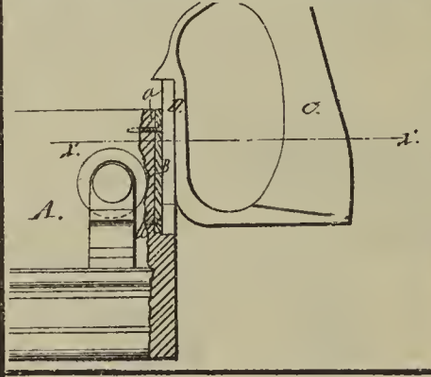
JOSEPH B. WAKEMAN.
ALFONZO R. FIELD.
WASHING AND WRINGING-MACHINE.
102,628,



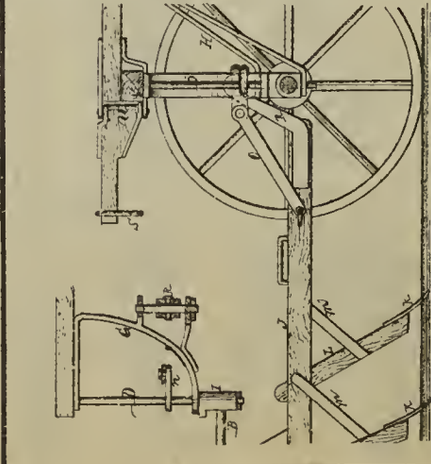
102,629. C. G. WATERBURY.
STONE PAVEMENT.



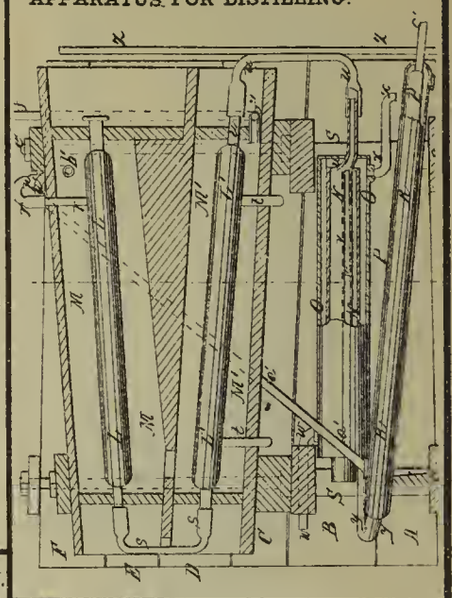
102,630. C. H. WEIGLE. ATTACHING HANDLES TO JOINER'S PLOWS.



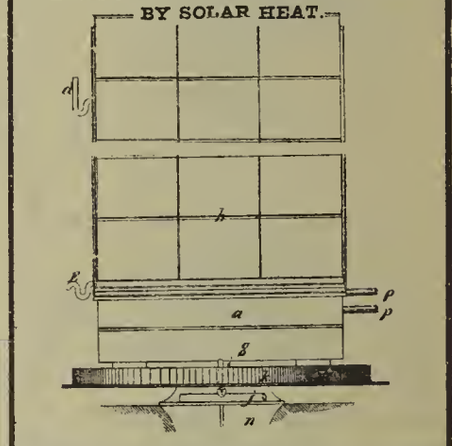
102,631. N. WERTS. CULTIVATOR.



102,632, JOHN M. WEYAND.
APPARATUS FOR DISTILLING.

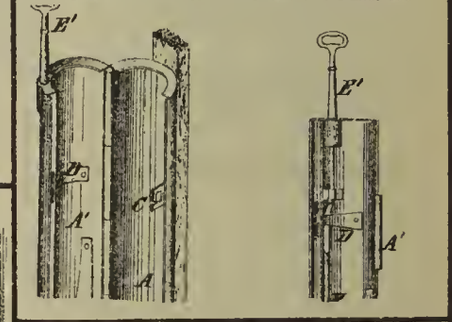


102,633, NORMAN W. WHEELER.
W. W. EVANS.
EVAPORATING AND DISTILLING BY SOLAR HEAT.

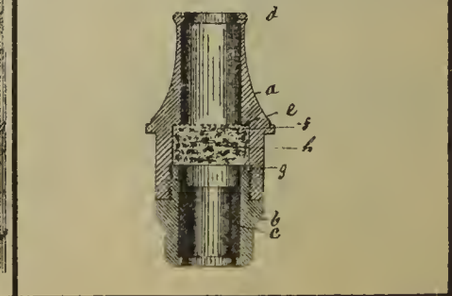


102,634. J. T. WHIPPLE. PUMP.

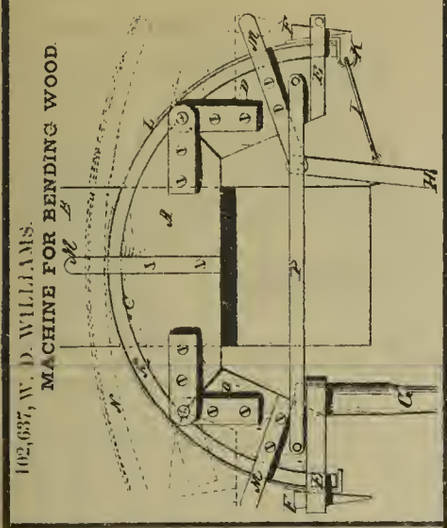
102,635, JOHN W. WHITEMAN.
SAFETY-SOCKET FOR WHIPS, UMBRELLAS, BILLIARD-CUES, &c.



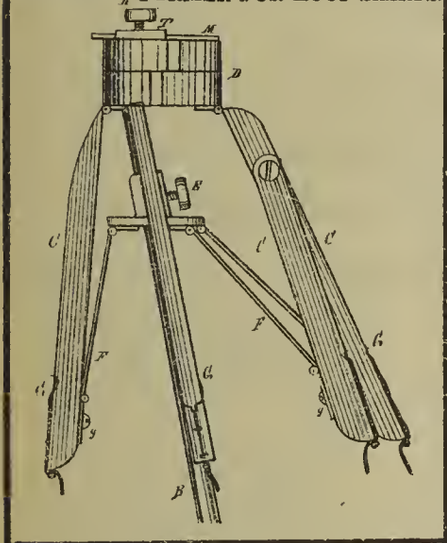
102,636, NAHUM C. WILDER.
WATER-COCK FILTER.



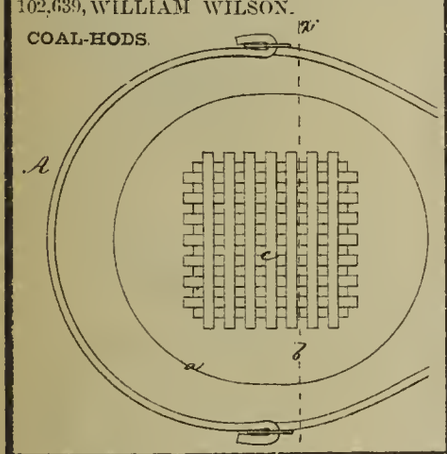
102,637, W. D. WILLIAMS.
MACHINE FOR BENDING WOOD.



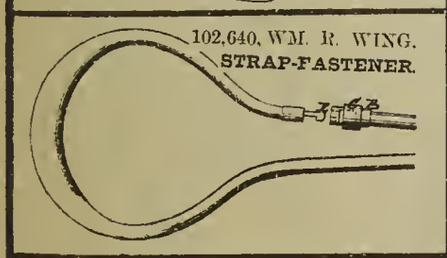
102,638, C. C. WILSON.
FORMER FOR HOOP-SKIRTS.



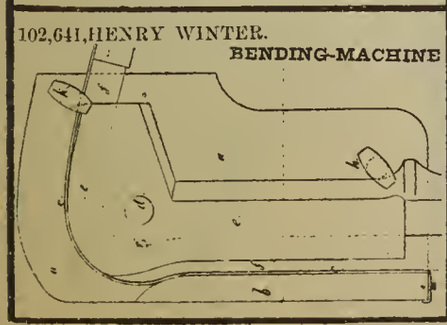
102,639, WILLIAM WILSON.
COAL-HODS.



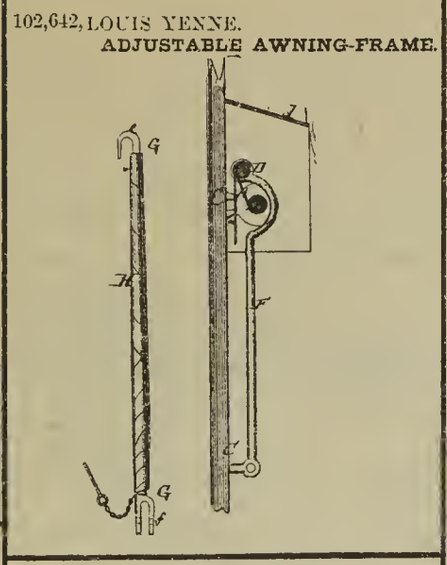
102,640, WM. R. WING.
STRAP-FASTENER.



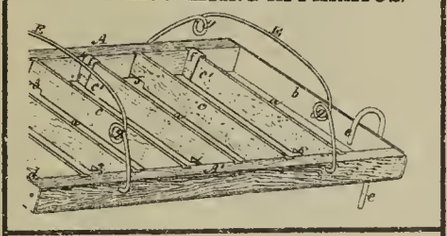
102,641, HENRY WINTER.
BENDING-MACHINE



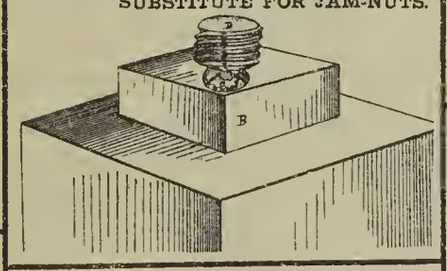
102,642, LOUIS YENNE.
ADJUSTABLE AWNING-FRAME.



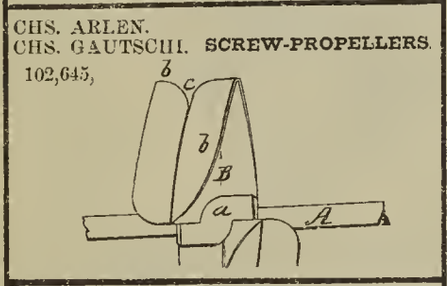
102,643, ALANSON YOUNGS.
EVAPORATING APPARATUS.



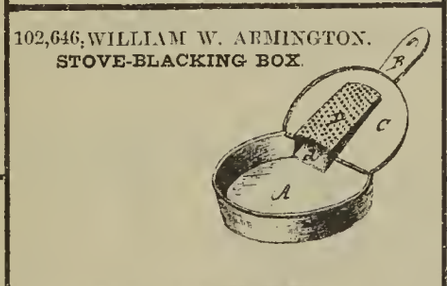
102,644, THEODORE B. YOUNG
SUBSTITUTE FOR JAM-NUTS.



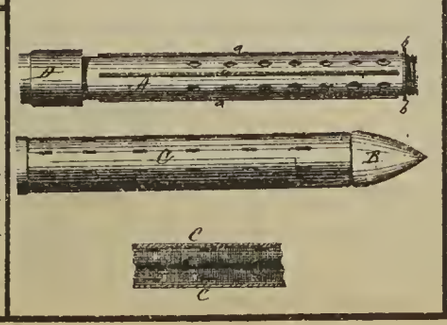
CHS. ARLEN.
CHS. GAUTSCHI. SCREW-PROPELLERS.
102,645,



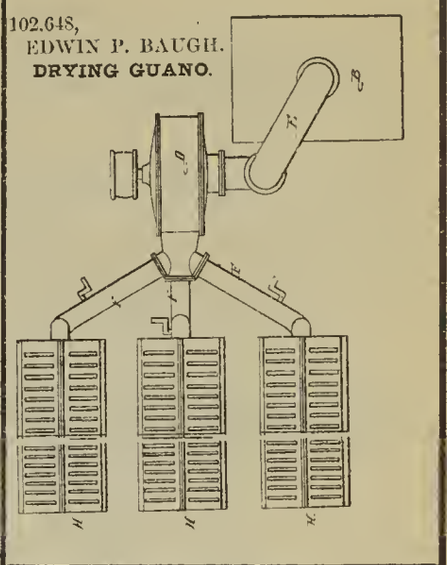
102,646, WILLIAM W. ARMINGTON.
STOVE-BLACKING BOX.



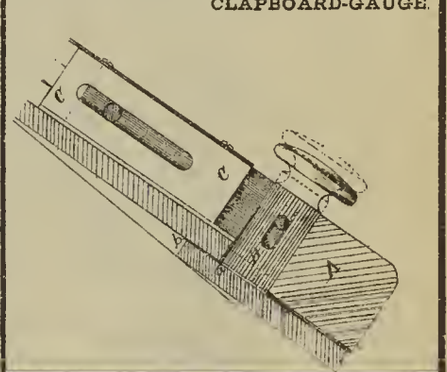
102,647. I. AYRES AND D. C. PAYNE.
WELL TUBE.



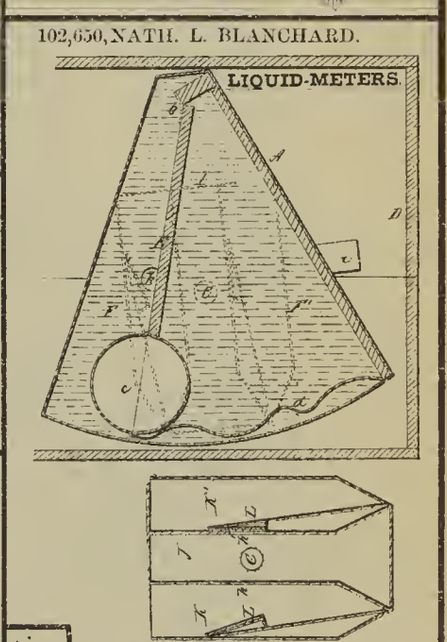
102,648,
EDWIN P. BAUGH.
DRYING GUANO.



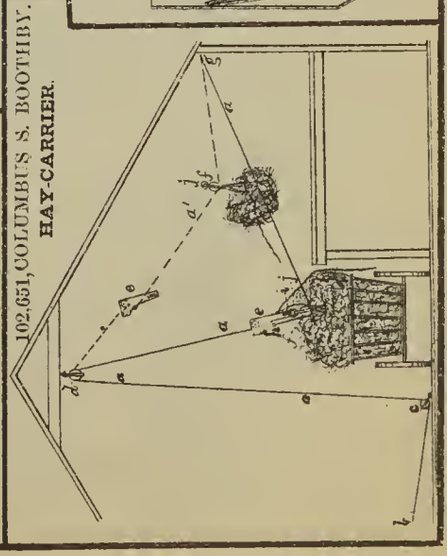
102,649, J. S. BIDDLECOM.
CLAPBOARD-GAUGE.



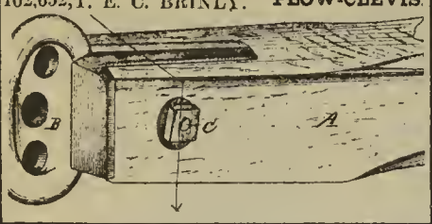
102,650, NATH. L. BLANCHARD.
LIQUID-METERS.



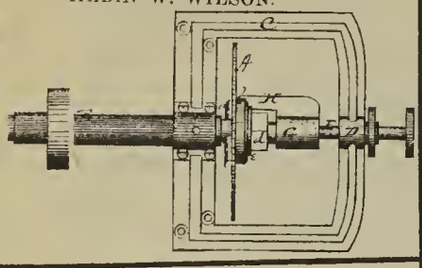
102,651, COLUMBUS S. BOOTHBY.
HAY-CARRIER.



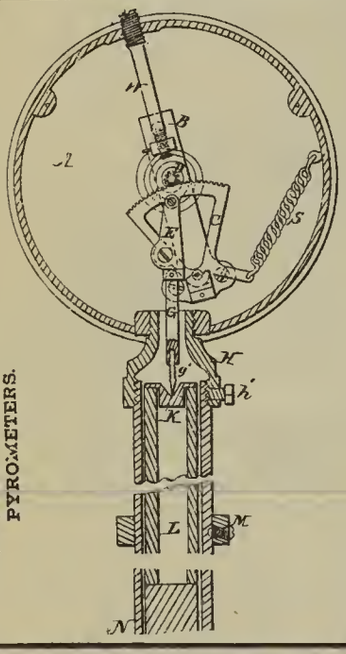
102,652, T. E. C. BRINLY. PLOW-CLEVIS.



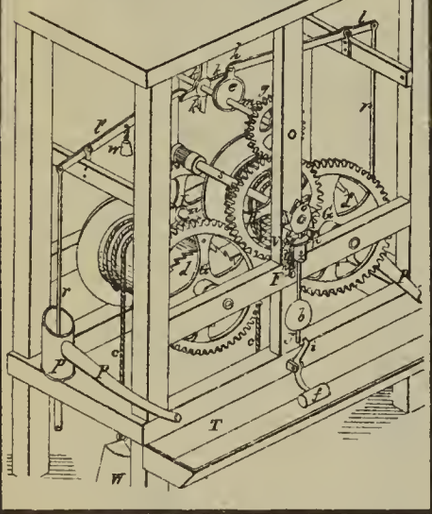
102,653, HENRY BROOMELL. ALBIN W. WILSON. SAW.



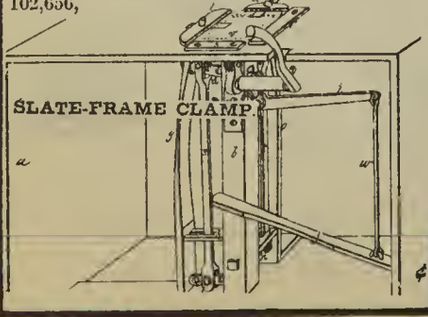
102,654, EDWD. BROWN. PYROMETERS.



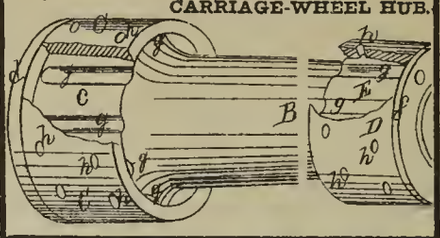
102,655, GEO. C. CANFIELD. WATER-ELEVATORS.



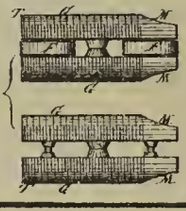
102,656, JAMES H. COFFIN. SLATE-FRAME CLAMP.



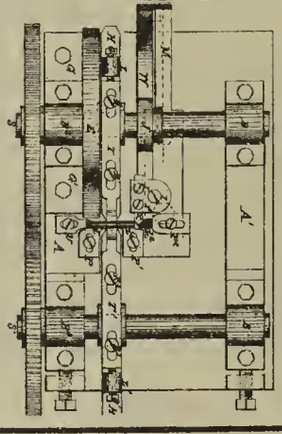
102,657, ALMOND F. COOPER. CARRIAGE-WHEEL HUB.



102,658, WM. DAMEREL. SASH-BALANCES.

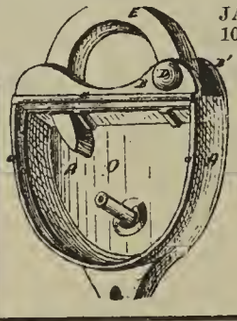


102,659, JOHN T. DARNELL. STAPLE-MACHINE.

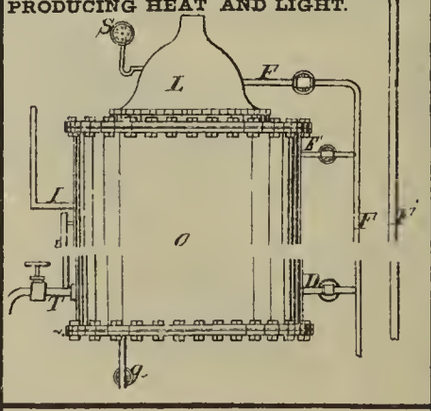


102,660. THOMAS HALE DAVIS. COMPOSITION FOR AND MODE OF ORNAMENTING WOOD.

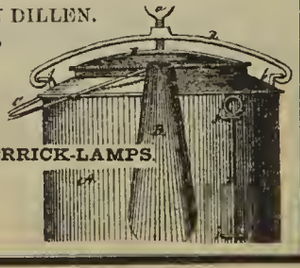
JAMES M. A. DEW. 102,661, PADLOCKS.



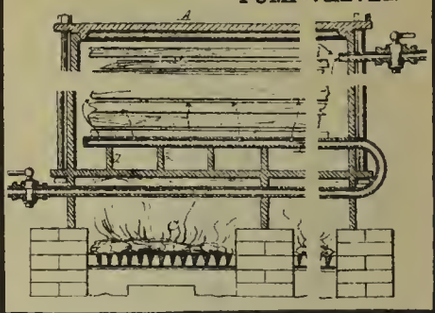
102,662. T. S. DICKERSON AND R. M. WHIPPLE. PROCESS AND APPARATUS FOR USING LIQUID FUEL FOR PRODUCING HEAT AND LIGHT.



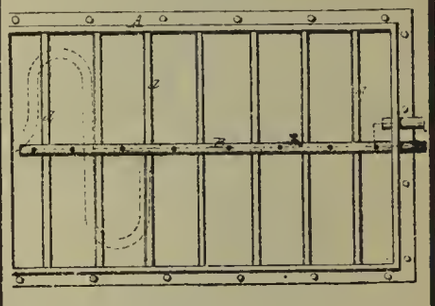
JONATHAN DILLEN. 102,663, SAFETY DERRICK-LAMPS.



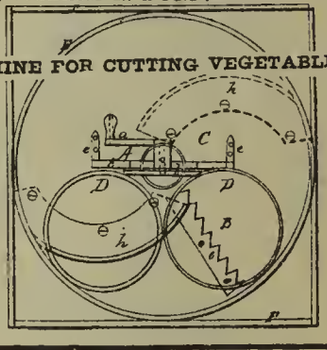
102,664, JOS. W. DOUGLAS. PUMP-VALVES.

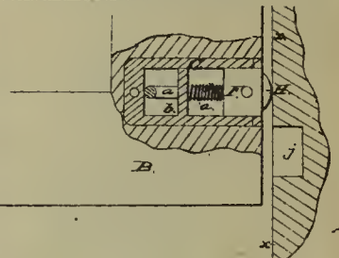


102,665, RICHARD A. DOUGLAS. SEASONING WOOD



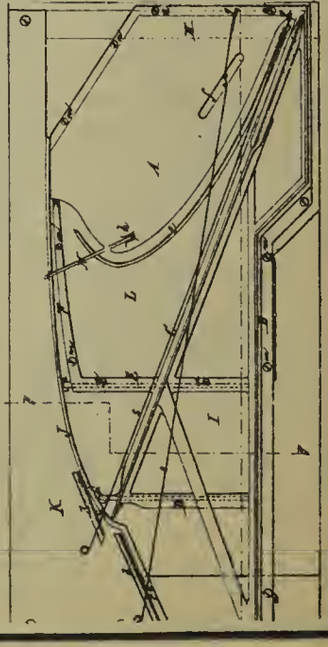
102,666, WILLIAM R. DUNN. MACHINE FOR CUTTING VEGETABLES.



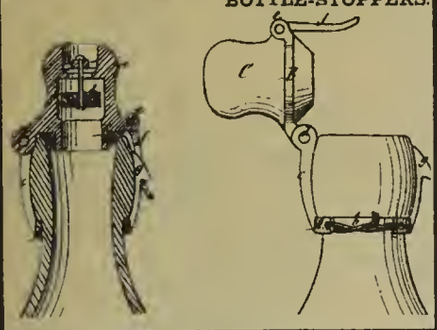


102,667. WM. A. EISENHOWER. SASH-HOLDER

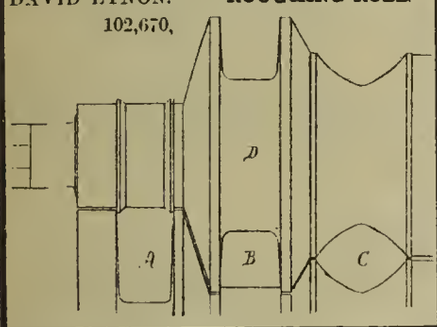
102,668, GEORGE ELY. PIANO-FORTES.



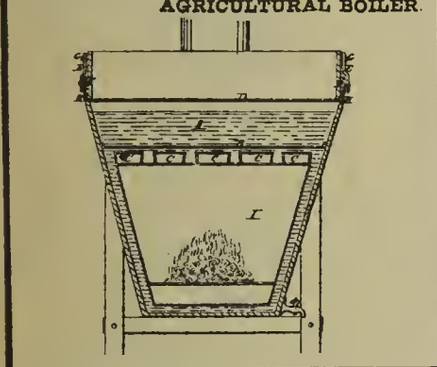
102,669, WILLIAM ELY.
BOTTLE-STOPPERS.



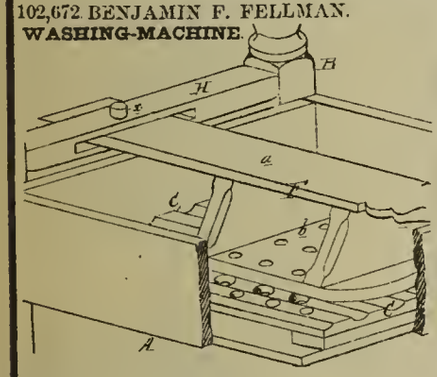
DAVID EYNON. ROUGHING-ROLL.
102,670,



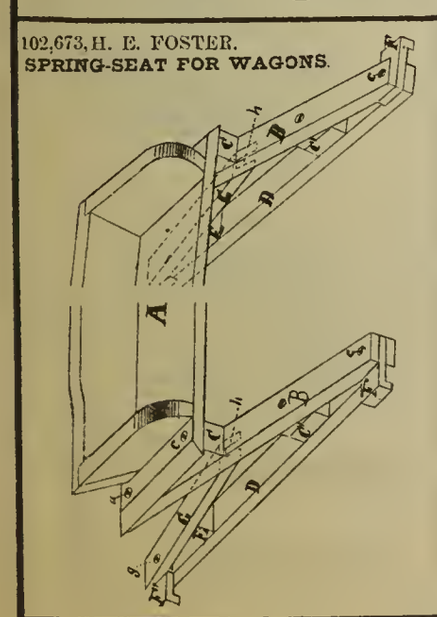
102,671, FRANCIS FARQUHAR.
AGRICULTURAL BOILER.



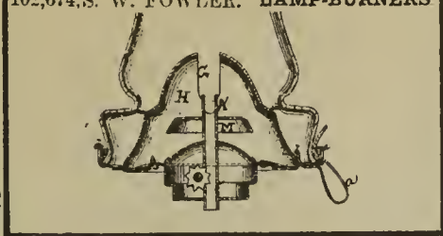
102,672 BENJAMIN F. FELLMAN.
WASHING-MACHINE.



102,673, H. E. FOSTER.
SPRING-SEAT FOR WAGONS.

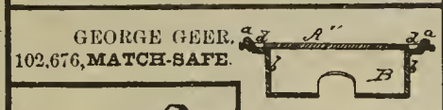


102,674, S. W. FOWLER. LAMP-BURNERS.

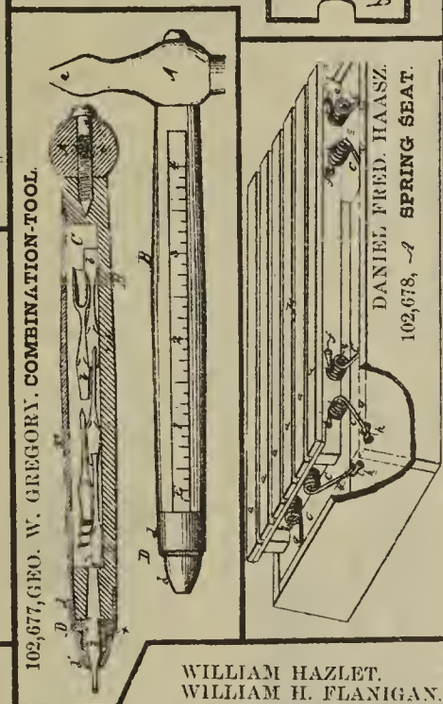


102,675, RICHARD J. GATLING.
METALLIC CARTRIDGES.

GEORGE GEER.
102,676, MATCH-SAFE.

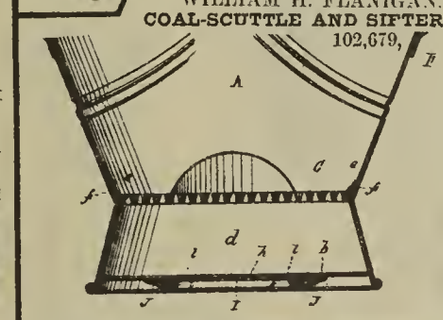


102,677, GEO. W. GREGORY. COMBINATION-TOOL.

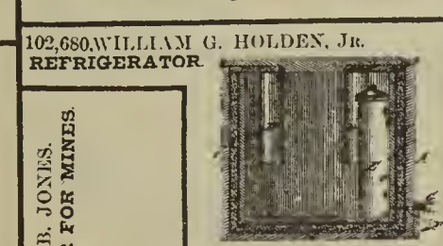


DANIEL FRED. HAASZ.
102,678, SPRING SEAT.

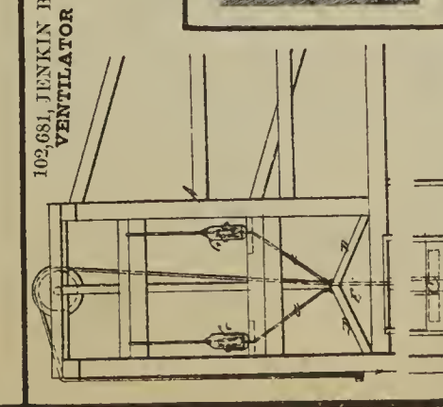
WILLIAM HAZLET.
WILLIAM H. FLANIGAN.
COAL-SCUTTLE AND SIFTER.
102,679,



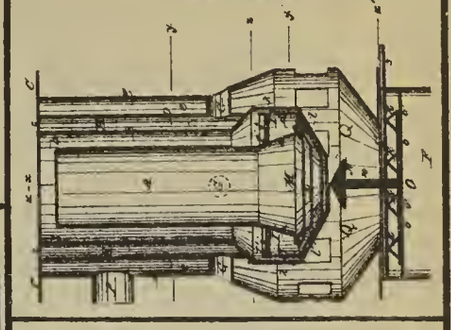
102,680, WILLIAM G. HOLDEN, JR.
REFRIGERATOR.

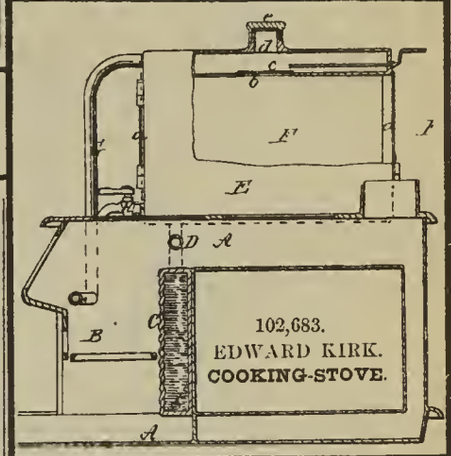


102,681, JENKIN B. JONES.
VENTILATOR FOR MINES.



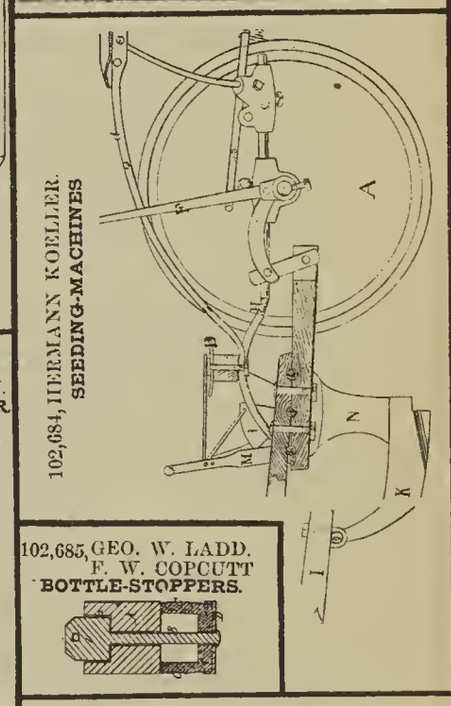
102,682, WILLIAM J. KEEP.
BASE-BURNING STOVE.



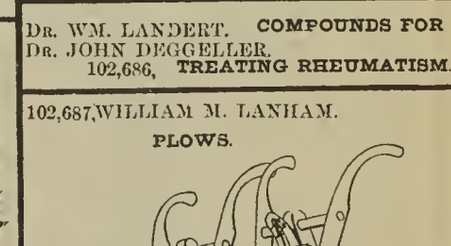


102,683.
EDWARD KIRK.
COOKING-STOVE.

102,684, HERMANN KOELLER.
SEEDING-MACHINES

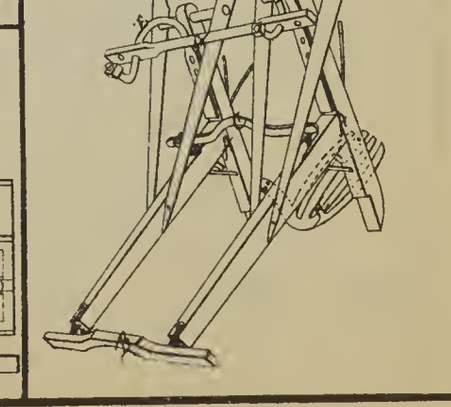


102,685, GEO. W. LADD.
F. W. COPCUTT
BOTTLE-STOPPERS.

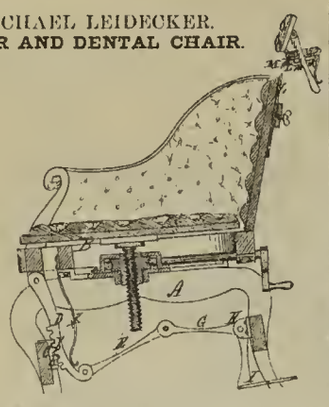


DR. WM. LANDERT. COMPOUNDS FOR
DR. JOHN DEGGELLER.
102,686, TREATING RHEUMATISM.

102,687, WILLIAM M. LANHAM.
PLOWS.

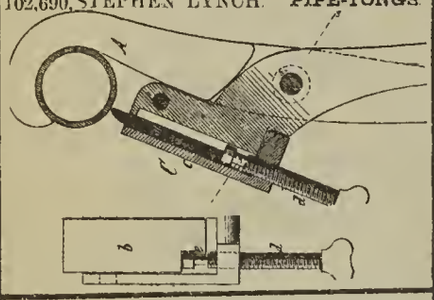


102,688, MICHAEL LEIDECKER. BARBER AND DENTAL CHAIR.

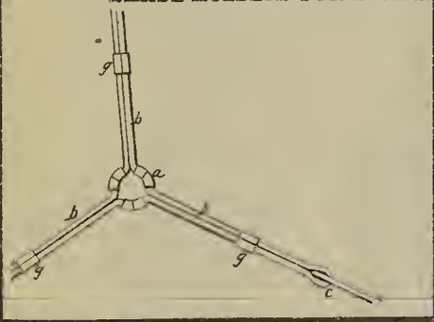


102,689, ORAZIO LUGO. MANUFACTURE OF FERTILIZERS AND OIL FROM FISH.

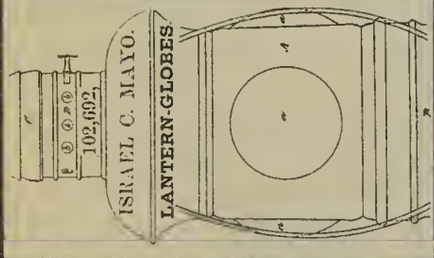
102,690, STEPHEN LYNCH. PIPE-TONGS.



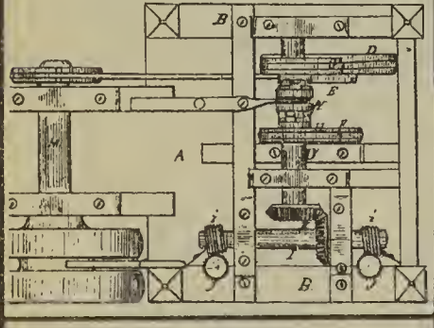
102,691, JAMES W. LYON. SHADE-HOLDERS FOR LAMPS.



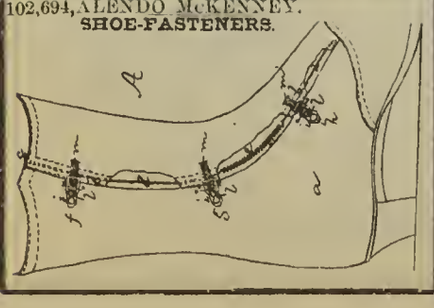
102,692, ISRAEL C. MAYO. LANTERN-GLOBES.



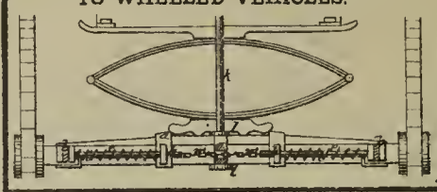
102,693, JAMES McDERMOTT. MACHINE FOR SPLITTING GRINDSTONES.

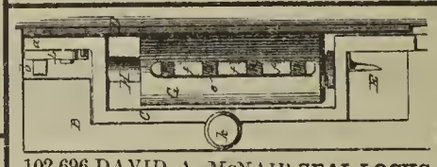


102,694, ALENDO McKENNEY. SHOE-FASTENERS.



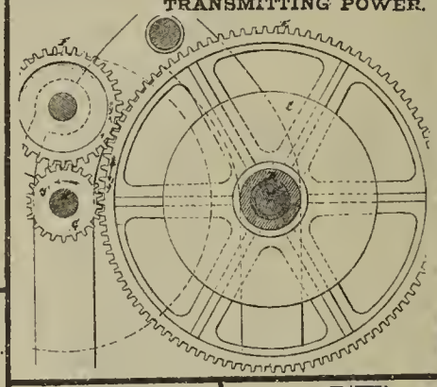
102,695, JAMES McMILLIN. ATTACHMENT OF POLE OR SHAFTS TO WHEELED VEHICLES.



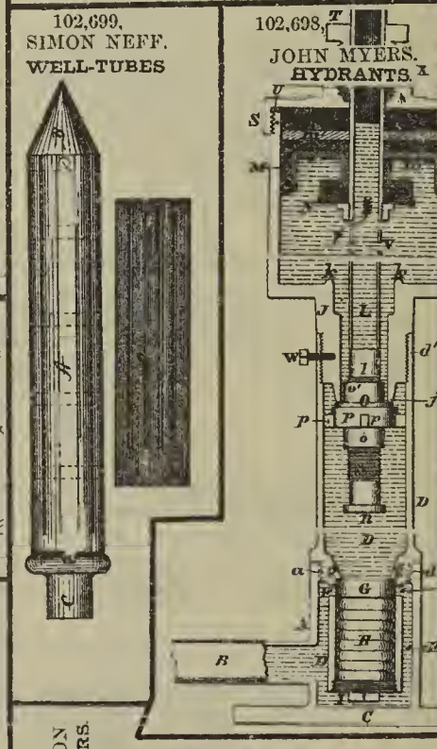


102,696, DAVID A. McNAIR. SEAL-LOCKS.

102,697, A. W. MORTON. TRANSMITTING POWER.

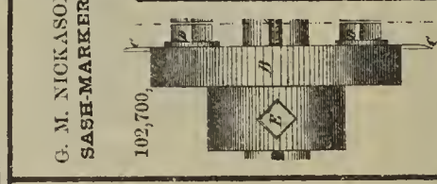


102,698, JOHN MYERS. HYDRANTS.

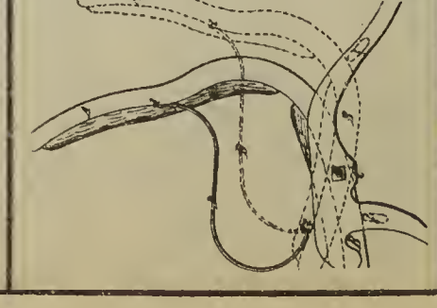


102,699, SIMON NEFF. WELL-TUBES

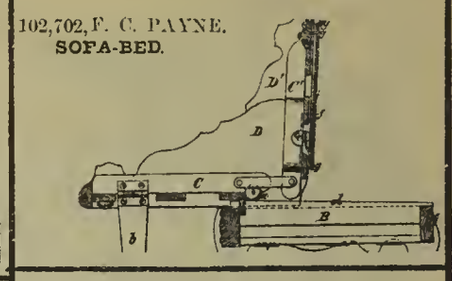
102,700, G. M. NICKASON. SASH-MARKERS.



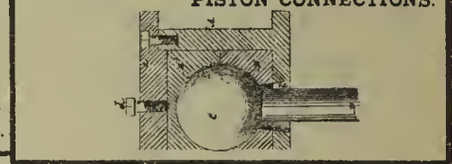
102,701, THEODORE J. PALMER. ROCKING AND RECLINING-CHAIR.



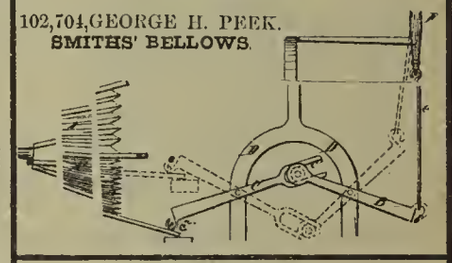
102,702, F. C. PAYNE. SOFA-BED.



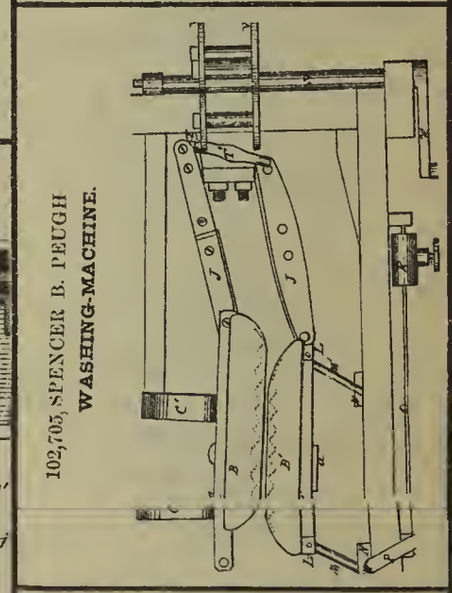
102,703, HART F. PEASE. PISTON CONNECTIONS.



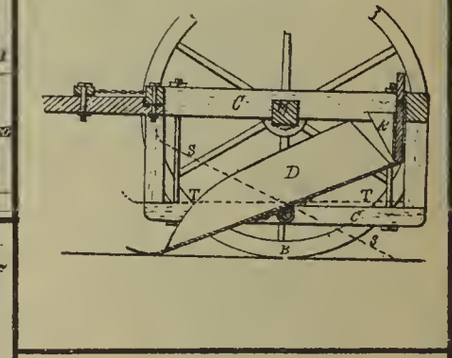
102,704, GEORGE H. PEEK. SMITHS' BELLOWS.



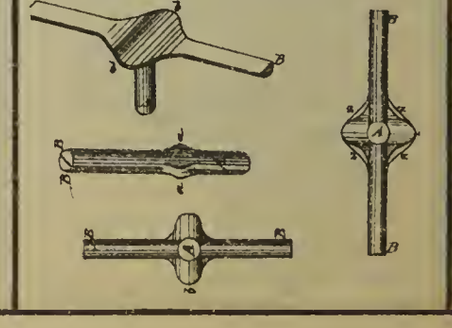
102,705, SPENCER B. PEUGH. WASHING-MACHINE.



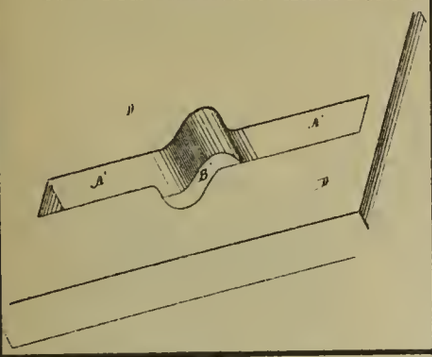
102,706, JAMES PRESTON. GRADING-MACHINE.



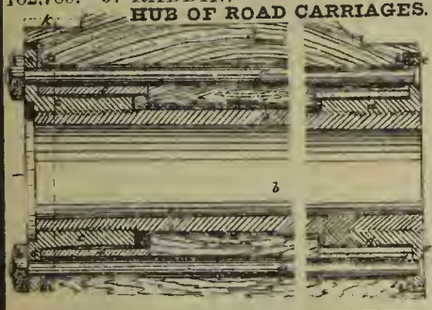
102,707, F. B. PRINDLE. DIES FOR FORMING KING-BOLTS.



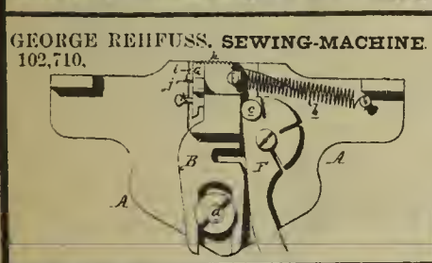
102,708. FRANKLIN B. PRINDLE.
DIES FOR TRIMMING KING-BOLTS.



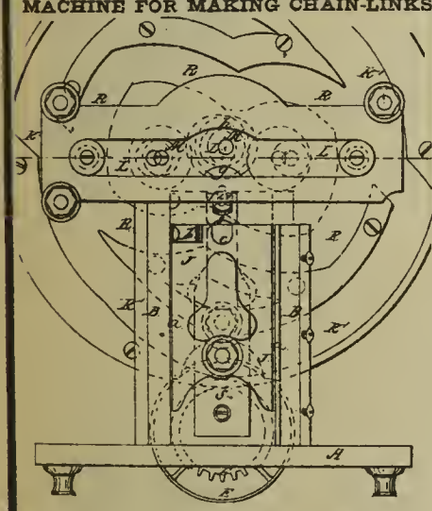
102,709. J. RADDIN.
HUB OF ROAD CARRIAGES.



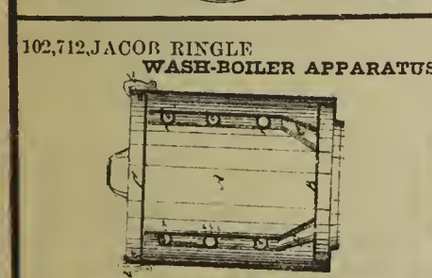
GEORGE REHFUSS. SEWING-MACHINE.
102,710.



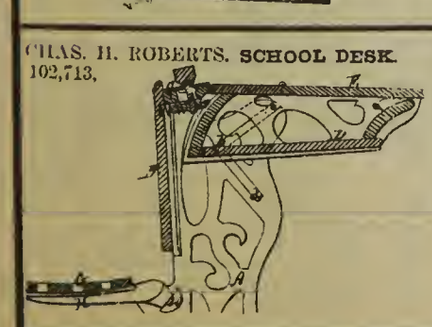
102,711, HENRY REYNOLDS.
MACHINE FOR MAKING CHAIN-LINKS.



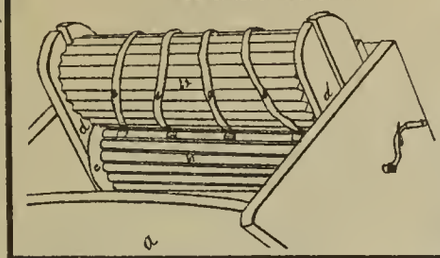
102,712, JACOB RINGLE.
WASH-BOILER APPARATUS.



CHAS. H. ROBERTS. SCHOOL DESK.
102,713.

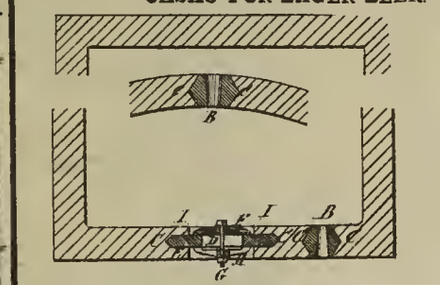


102,714, W. T. C. RUNNELLS.
WASHING-MACHINE.

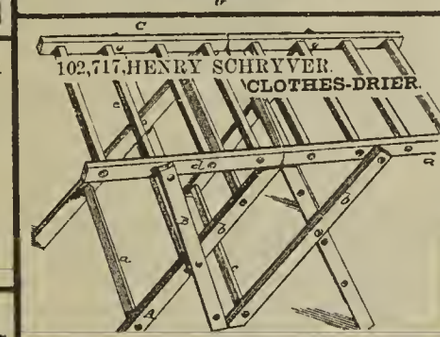


102,715, OLIVER SCHAFFER. COMPOUND FOR REFINING CIDER, WINE, &c.

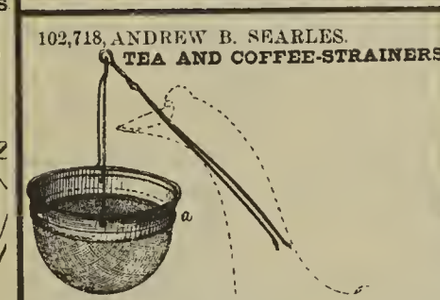
102,716, JOHN J. SCHILLINGER.
CASKS FOR LAGER BEER.



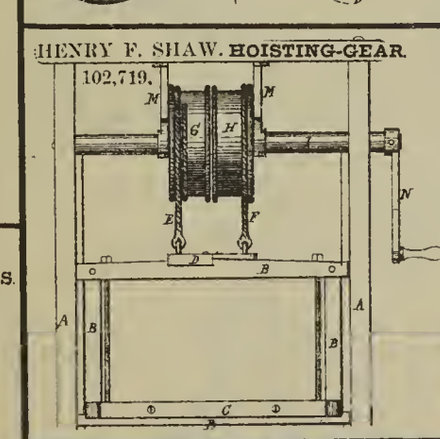
102,717, HENRY SCHRYVER.
CLOTHES-DRIER.



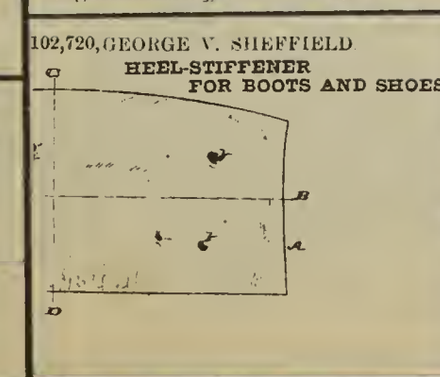
102,718, ANDREW B. SEARLES.
TEA AND COFFEE-STRAINERS.



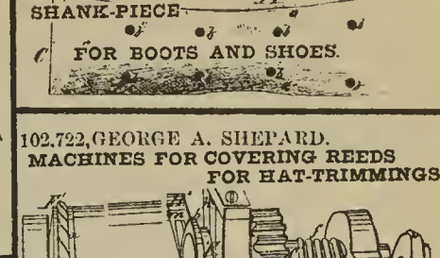
HENRY F. SHAW. HOISTING-GEAR.
102,719.



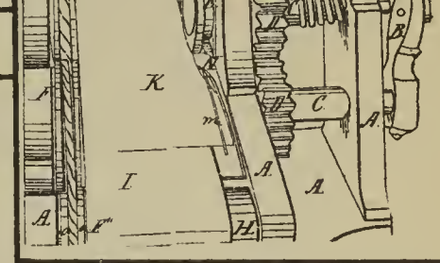
102,720, GEORGE V. SHEFFIELD.
HEEL-STIFFENER FOR BOOTS AND SHOES.



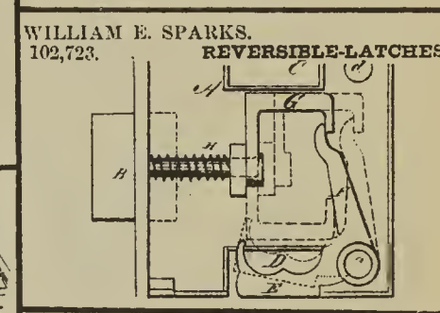
102,721, GEORGE V. SHEFFIELD.
SHANK-PIECE FOR BOOTS AND SHOES.



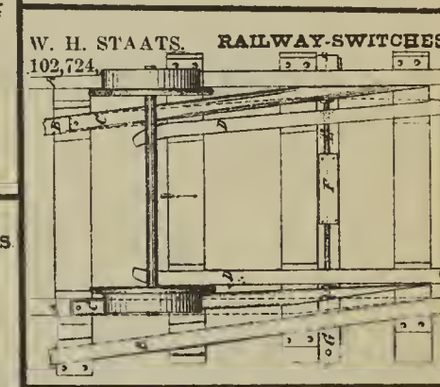
102,722, GEORGE A. SHEPARD.
MACHINES FOR COVERING REEDS FOR HAT-TRIMMINGS.



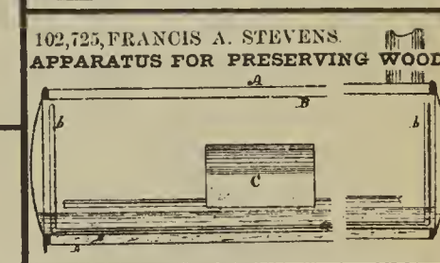
WILLIAM E. SPARKS.
102,723. REVERSIBLE-LATCHES.



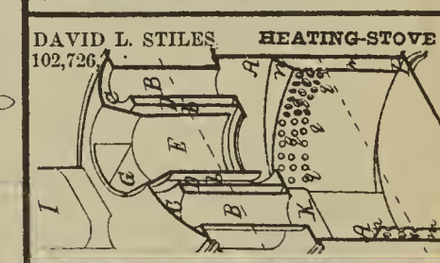
W. H. STAATS. RAILWAY-SWITCHES.
102,724.



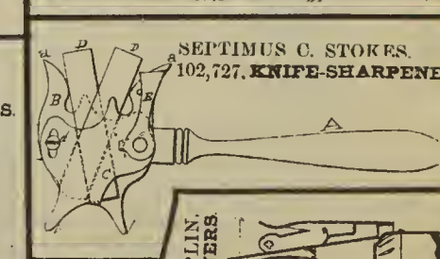
102,725, FRANCIS A. STEVENS.
APPARATUS FOR PRESERVING WOOD.



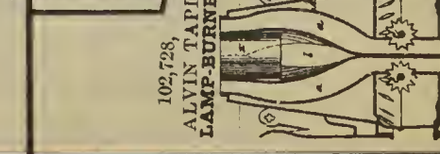
DAVID L. STILES. HEATING-STOVE.
102,726.



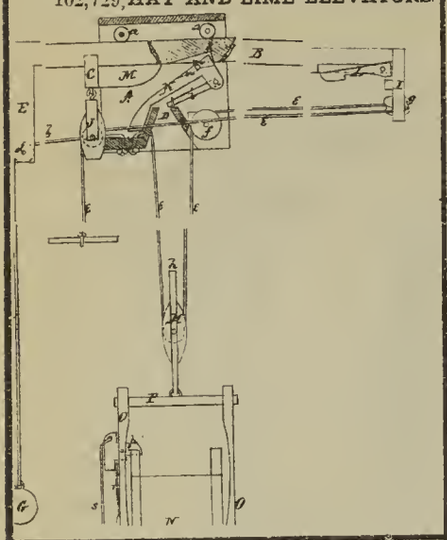
SEPTIMUS C. STOKES.
102,727. KNIFE-SHARPENER.



102,728, ALVIN TAPLIN. LAMP-BURNERS.

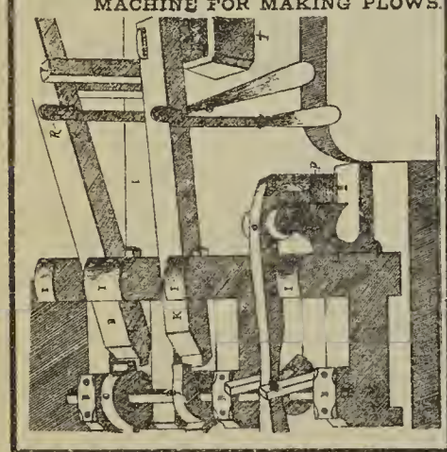


ABRAHAM THOMAS.
GEORGE D. THOMAS.
102,729, HAY AND LIME ELEVATORS.

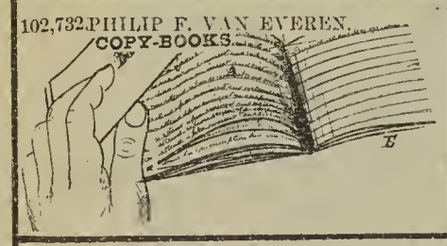


THEODORE R. TIMBY. COMBINED THREAD AND NEEDLE-CASES.
102,730,

102,731, JAMES URIE.
MACHINE FOR MAKING PLOWS.

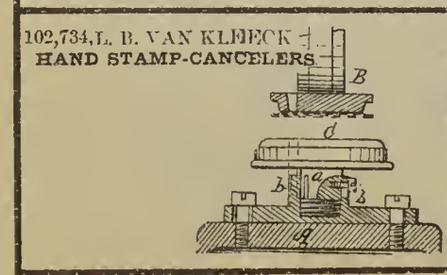


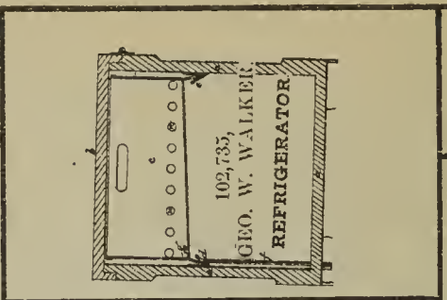
102,732, PHILIP F. VAN EVEREN.
COPY-BOOKS.



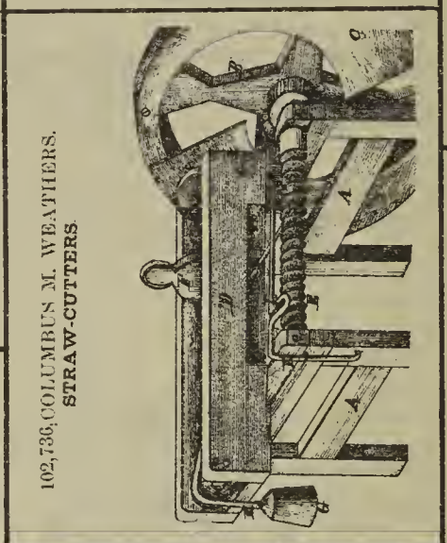
PHILIP F. VAN EVEREN.
102,733,
BOOK-COVER PROTECTORS.

102,734, L. B. VAN KLEECK.
HAND STAMP-CANCELERS.

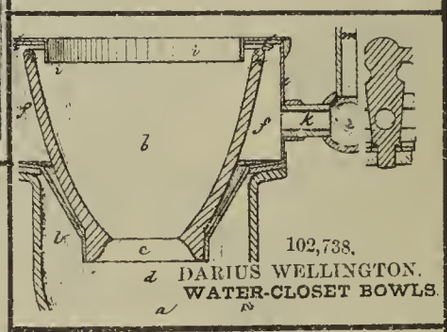




102,736, COLUMBUS M. WEATHERS.
STRAW-CUTTERS.

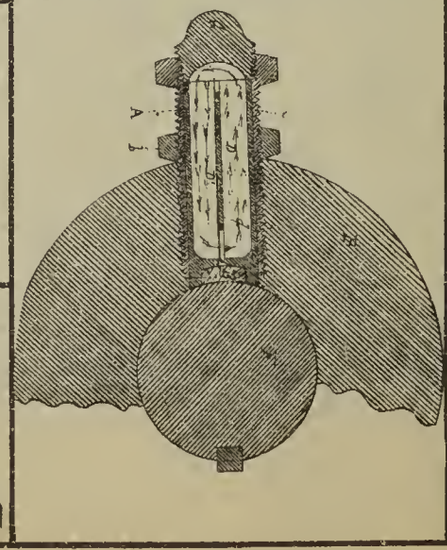


102,737.
DARIUS WELLINGTON.
LAVATORY APPARATUS



102,738.
DARIUS WELLINGTON.
WATER-CLOSET BOWLS.

ISAAC P. WENDELL.
STEPHEN P. M. TASKER, 102,739,
LUBRICATOR FOR LOOSE PULLEYS.



102,740, JAMES D. WHELPLEY.
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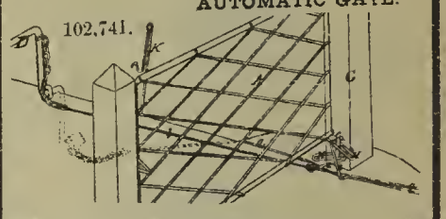
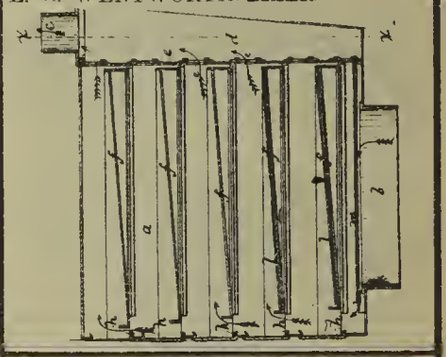
MANUFACTURE OF WROUGHT IRON FROM ORE, CINDER, OR SLAG.

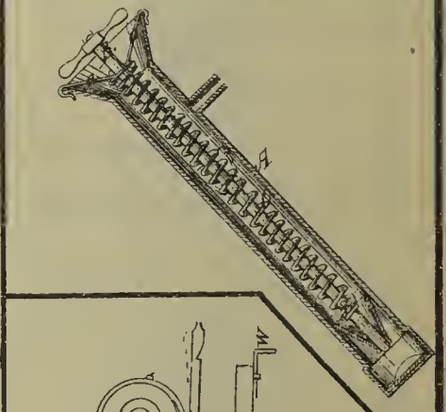
SAMUEL WHITAKER.
AUTOMATIC GATE.
102,741.



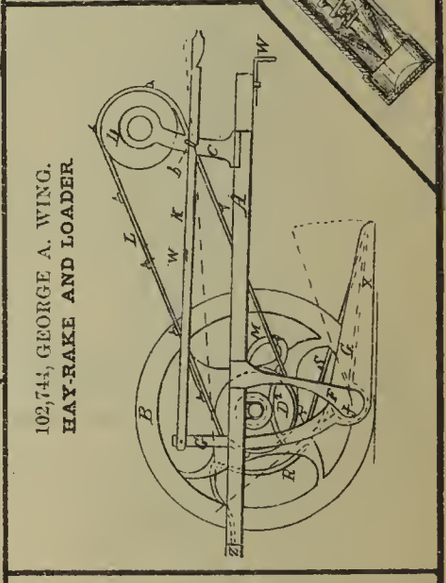
102,742. G. W. WHITE AND L. E. WENTWORTH. DRIER.



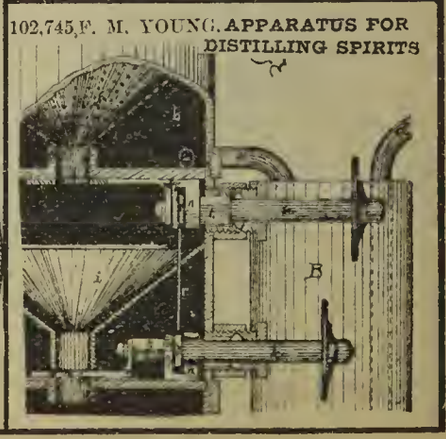
102,743. F. C. WILSON. PUMPS.



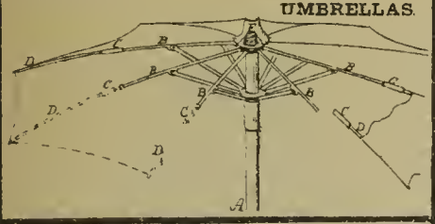
102,744, GEORGE A. WING.
HAY-RAKE AND LOADER.



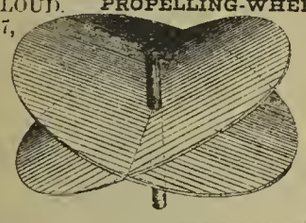
102,745, F. M. YOUNG. APPARATUS FOR DISTILLING SPIRITS



102,746, SOLOMON W. YOUNG. UMBRELLAS.



A. C. LOUD. PROPELLING-WHEELS. 102,747,



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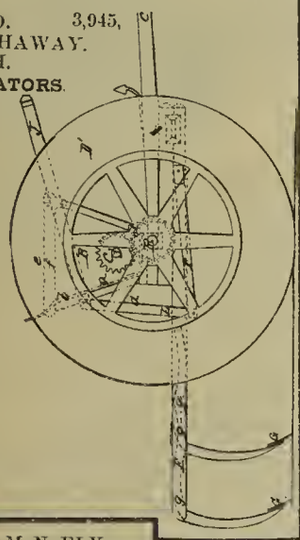
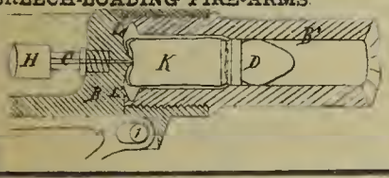
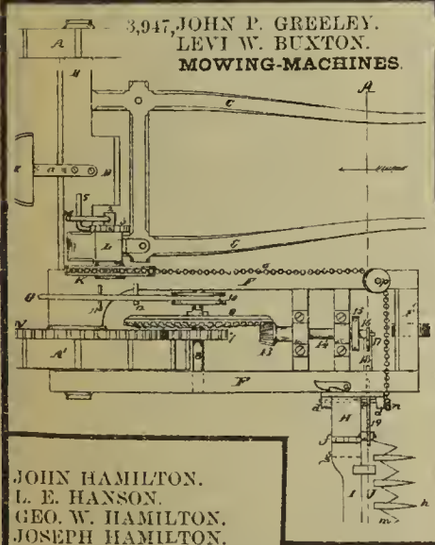


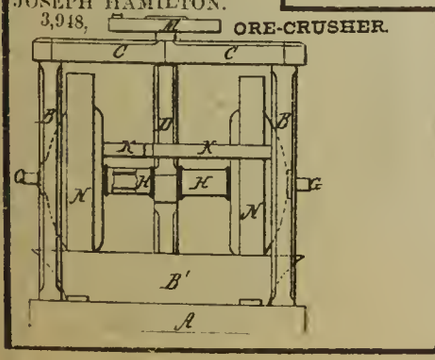
3,946, WILLIAM N. ELY. BREECH-LOADING FIRE-ARMS.



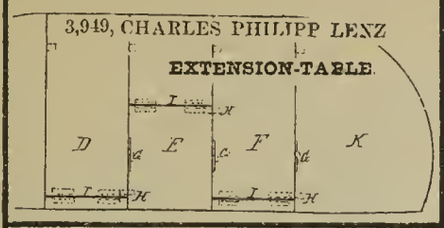
3,947, JOHN P. GREELEY. LEVI W. BUXTON. MOWING-MACHINES.



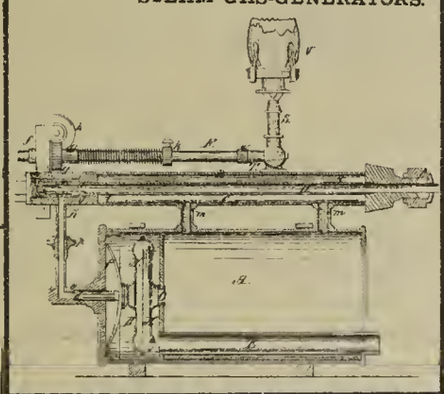
JOHN HAMILTON. L. E. HANSON. GEO. W. HAMILTON. JOSEPH HAMILTON. 3,948, ORE-CRUSHER.



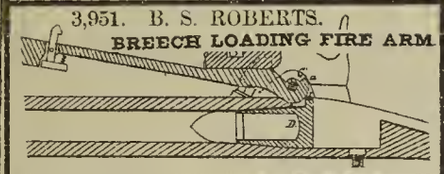
3,949, CHARLES PHILIPP LENZ. EXTENSION-TABLE.



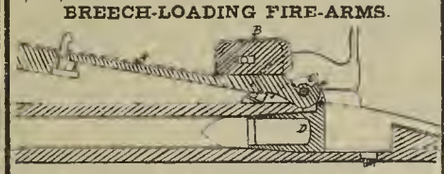
3,950, HIRAM S. MAXIM. STEAM GAS-GENERATORS.



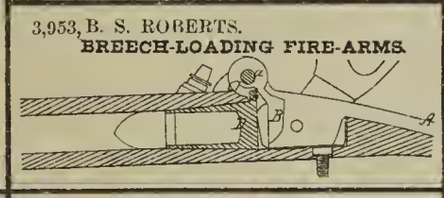
3,951. B. S. ROBERTS. BREECH LOADING FIRE ARM.



3,952, B. S. ROBERTS. BREECH-LOADING FIRE-ARMS.

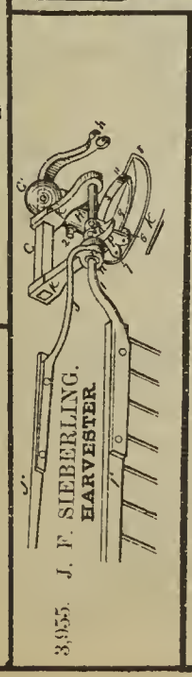


3,953, B. S. ROBERTS. BREECH-LOADING FIRE-ARMS.

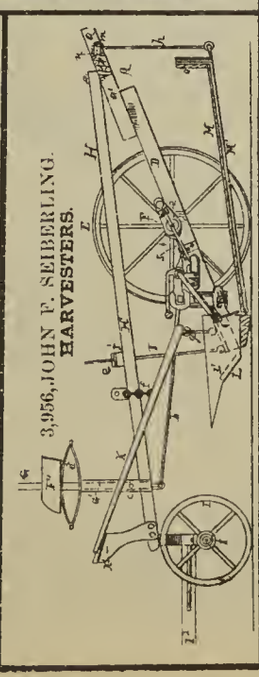


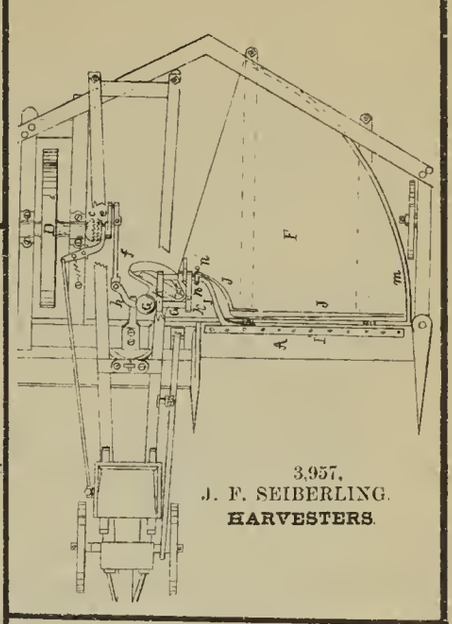
JOHN K. SAX. 3,954, GEORGE W. KEAR. RAILWAY CAR-WHEELS.

3,955. J. F. SIEBERLING. HARVESTER.



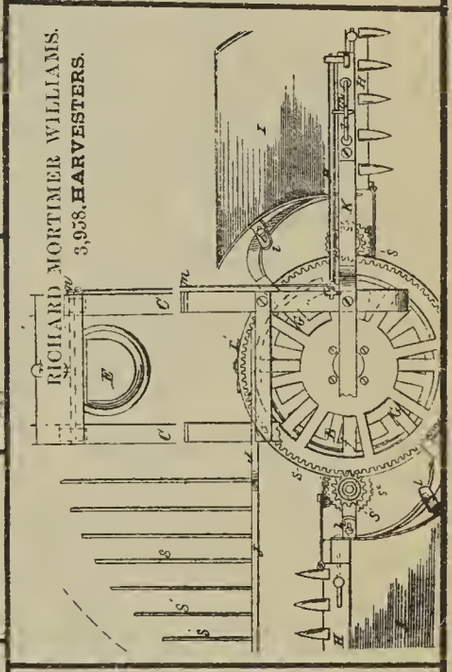
3,956, JOHN F. SEIBERLING. HARVESTERS.





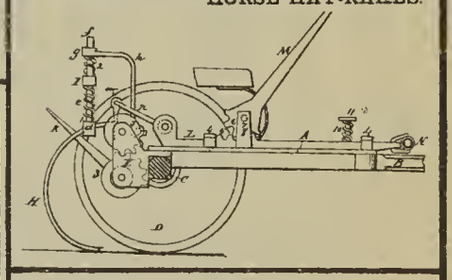
3,957, J. F. SEIBERLING. HARVESTERS.

RICHARD MORTIMER WILLIAMS. 3,958, HARVESTERS.

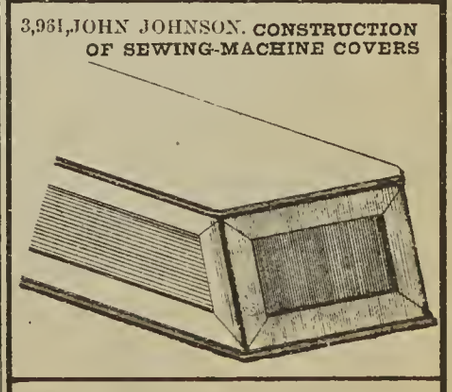


3,959, JOSEPH WOLFF. MANUFACTURE OF YEAST FOR DISTILLERS.

3,960, ALZIRUS BROWN. HORSE HAY-RAKES.



3,961, JOHN JOHNSON. CONSTRUCTION OF SEWING-MACHINE COVERS



3,962, JOHN L. DUFFEE. BRONZING AND GILDING.

ILLUSTRATIONS OF PATENTS

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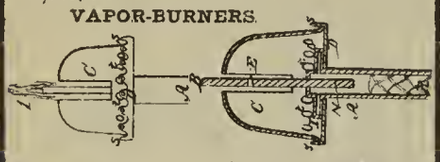
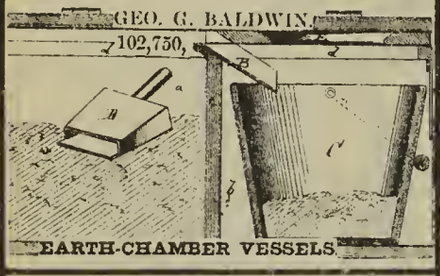
102,748. I. ADAMS, Jr.
ELECTRO DEPOSITION OF NICKEL.

102,749, JOHN W. BAKER.
VAPOR-BURNERS.



GEO. G. BALDWIN.
102,750,



EARTH-CHAMBER VESSELS.

OTIS B. BARTLETT.
GEORGE E. BARTLETT.
102,751.
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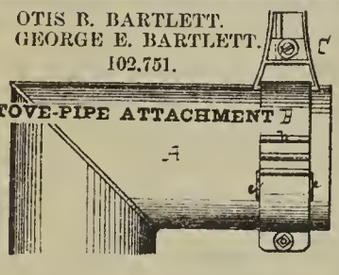

102,752, ELIJAH K. BIGELOW.
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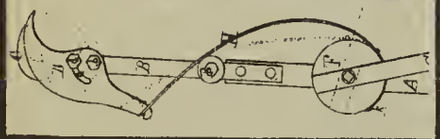
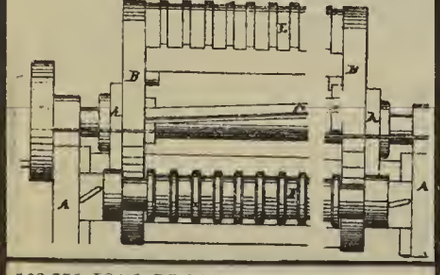


102,753. J. S. BIRCH.
ADJUSTABLE WATCH-KEYS.

102,754. WILLIAM HENRY BLEASDALE.
CRIMPING-ATTACHMENTS TO PAPER-MACHINES.



102,755. JOEL BLOOD.
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102,756, T. H. BODY.
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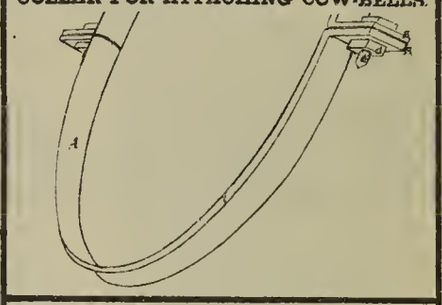

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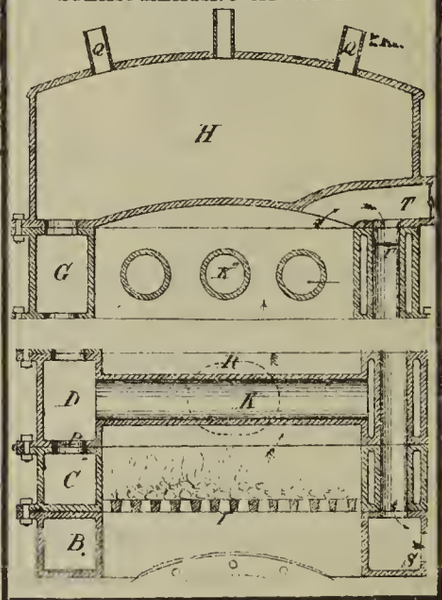
STEAM-HEATING APPARATUS.



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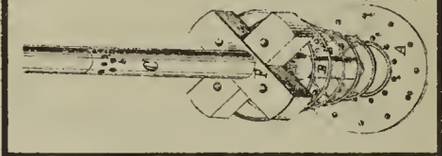

102,759. CHARLES BRADWAY.
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102,760, FREDERICK BRAUN.
AUGUSTUS T. SCHMIDT.
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102,761, SILAS M. BROOKS. **BIRD-TRAP.**

102,762, THOMAS H. BROWN
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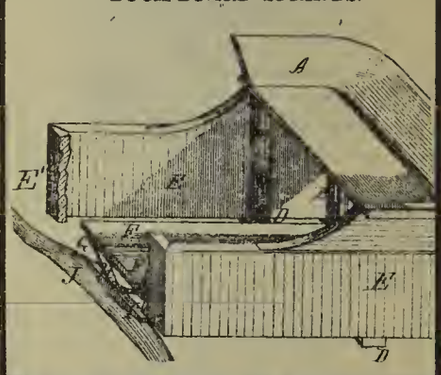

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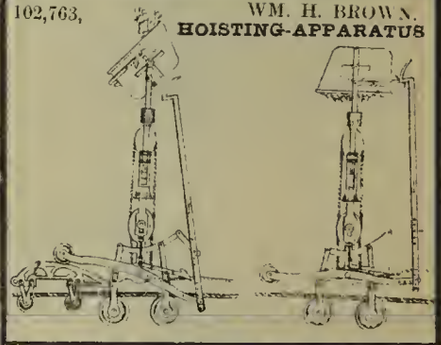
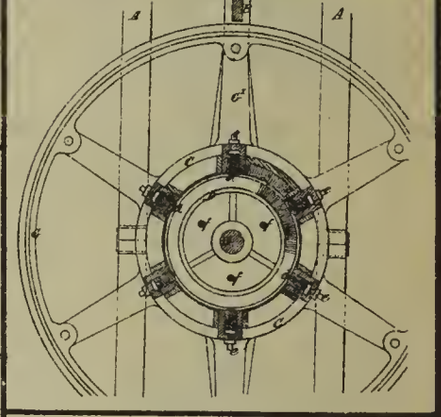


102,764. G. A. BUCHHOLZ.
HULLING-MACHINES.



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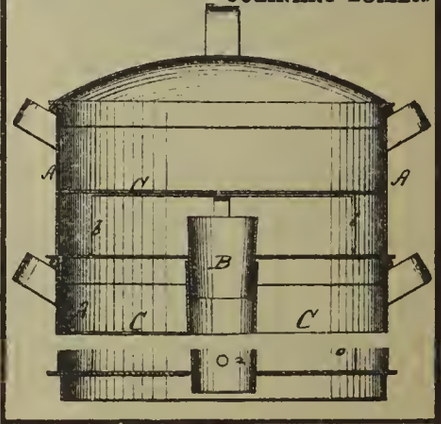
CULINARY BOILER.



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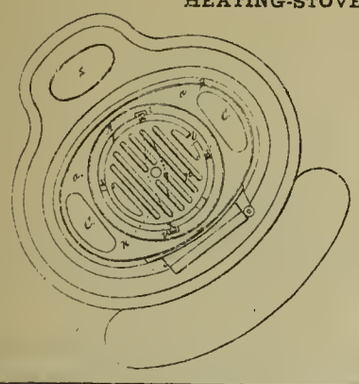
PENCIL-SHARPENERS.

102,767, M. C. BURLEIGH.
HEATING-STOVES.



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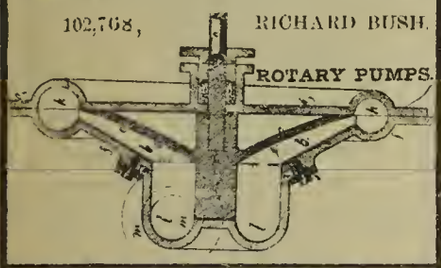

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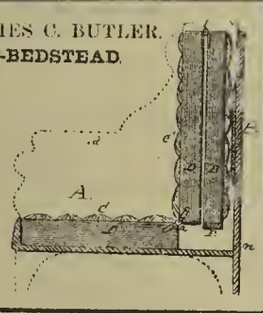
SOFA-BEDSTEAD.



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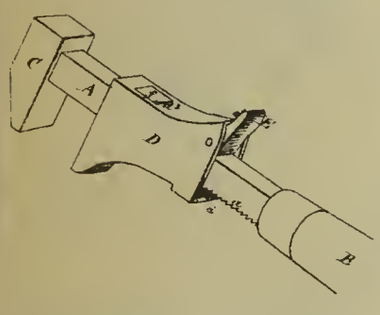

102,771, WALTER CALDWELL.
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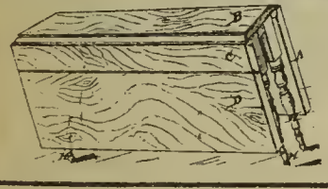
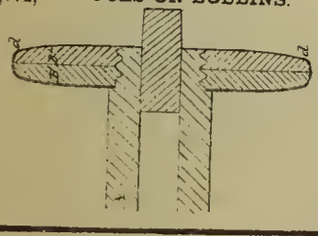


ALEXANDER CARMICHEL.
102,772, **SPOOLS OR BOBBINS.**



102,773, ISAAC CAREY.
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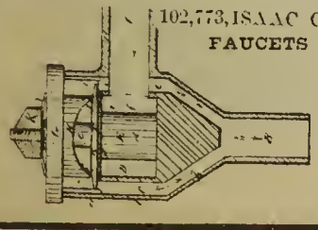
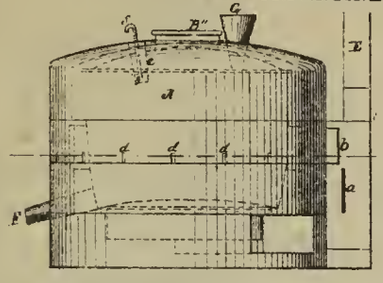
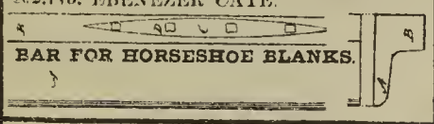


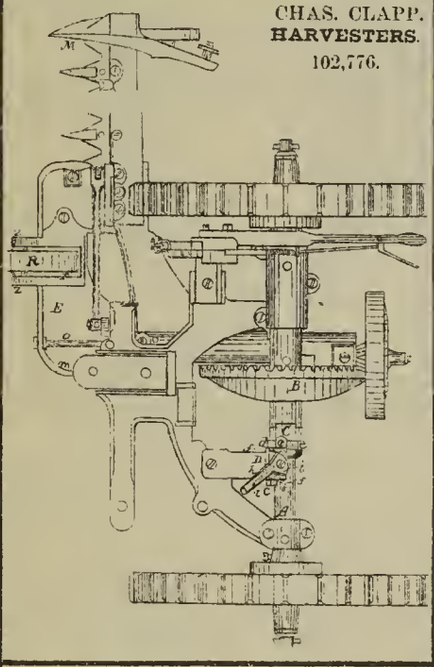
102,774, DAVID CASHWELL.
DISTILLING TURPENTINE.

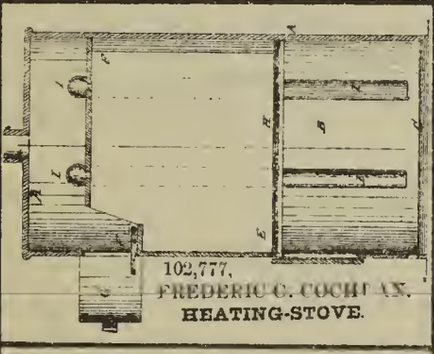


102,775. EBENEZER CATE.
BAR FOR HORSESHOE BLANKS.



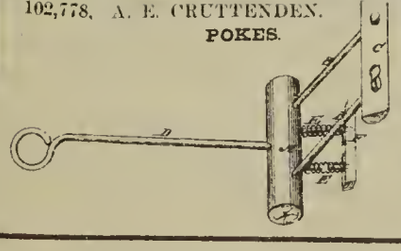
CHAS. CLAPP.
HARVESTERS.
102,776.





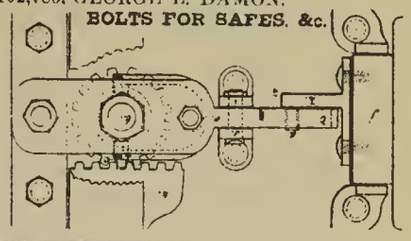
102,777,
FREDERIC C. COCHRAN.
HEATING-STOVE.

102,778, A. E. CRUTTENDEN.
POKES.

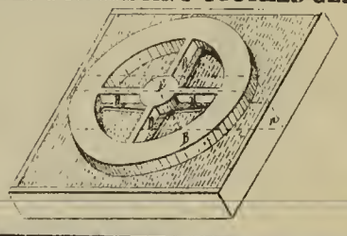


102,779, CHARLES M. DABOLL.
FRICTION-ROLLER BEARING.

102,780, GEORGE L. DAMON.
BOLTS FOR SAFES, &c.

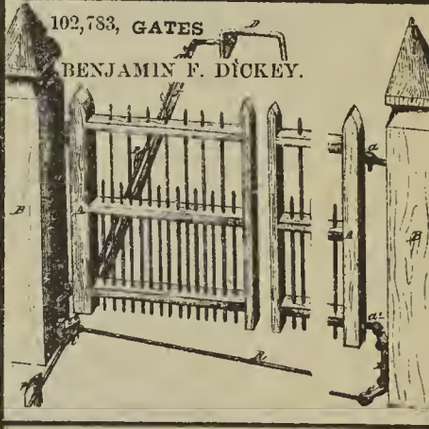


102,781, R. T. DAVIS.
CHILLS FOR CASTING TOOTHED-GEAR

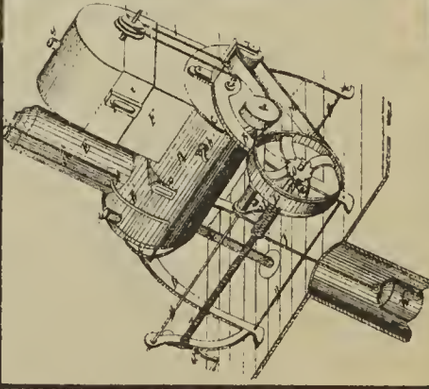


102,782,
CH. DE DARTEIN.
JULES DE DARTEIN.
REVOLVING FIRE-ARMS.

102,783, GATES
BENJAMIN F. DICKEY.

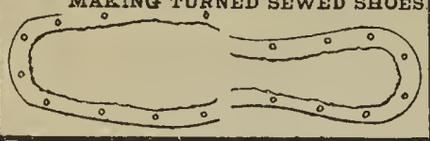


102,784, ELLIS DOTY. **GAS-GENERATORS.**

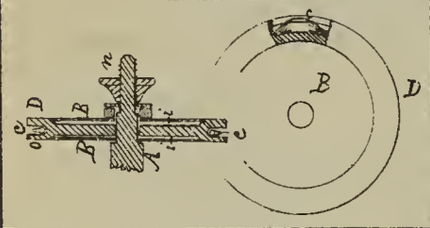


102,785, SAMUEL DOUGLASS.
FIRE-TONGS.

102,786, WILLM. DUCHEMIN. METHOD OF MAKING TURNED SEWED SHOES.

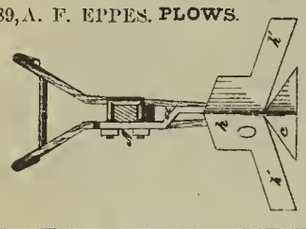


102,787, GEORGE L. DU LANEY. TENSION-DEVICE FOR THREAD IN SEWING-MACHINES.



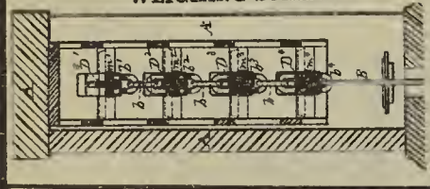
102,788, CHARLES J. EAMES. MEDICAL COMPOUND.

102,789, A. F. EPPES. PLOWS.

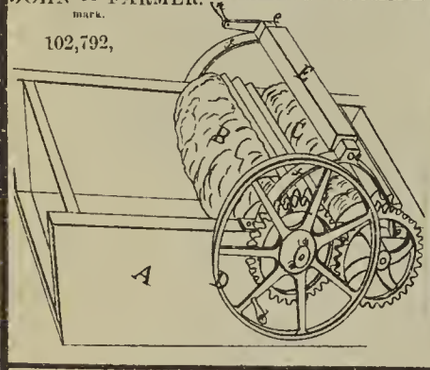


102,790, WILLIAM D. EVANS. RAZOR-STROPS.

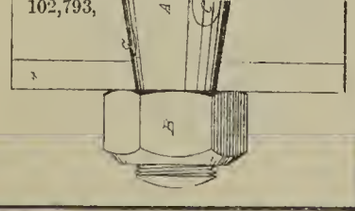
102,791, THADDEUS FAIRBANKS. WEIGHING-SCALES.



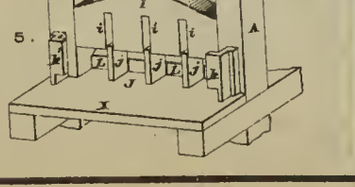
JOHN his mark FARMER. WASHING-MACHINE 102,792,



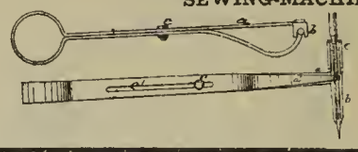
JOHN FARREL. BOLTS FOR SAFES. 102,793,



CHARLES W. FERGUSON. 102,794, BRICK-MACHINES.



102,795, JAS. W. FIELD. NEEDLE-SETTERS FOR SEWING-MACHINES.

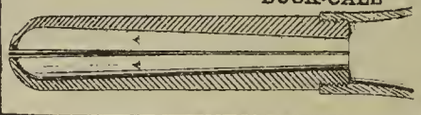


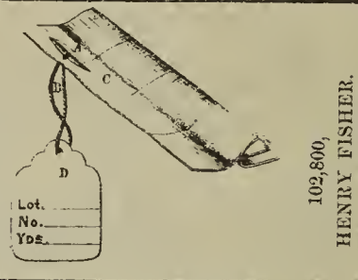
102,796, WILLIAM FIELDS. MANUFACTURE OF STEEL.

102,797, WILLIAM FIELDS. MANUFACTURE OF IRON.

102,798, O. FILLION. OF ARTIFICIAL FLOWERS MANUFACTURE

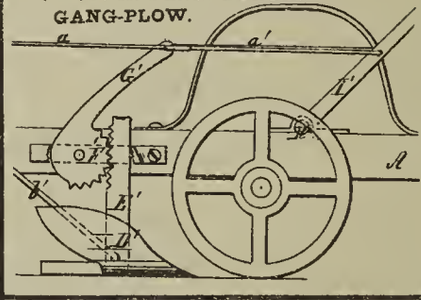
102,799, ELAM FISHER DUCK-CALL



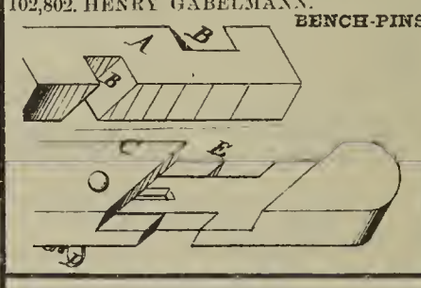


102,800, HENRY FISHER. TAG-FASTENERS.

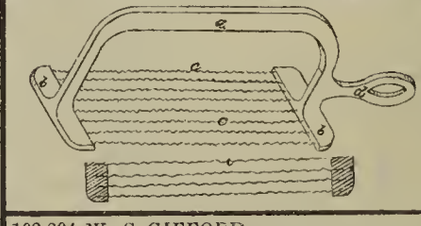
102,801, P. H. FLANSBURGH. GANG-PLOW.



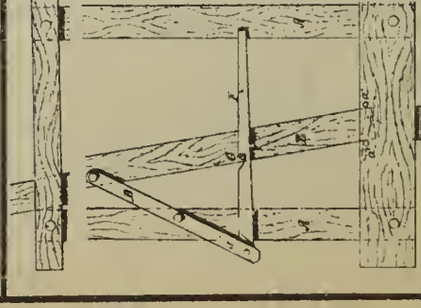
102,802. HENRY GABELMANN. BENCH-PINS.



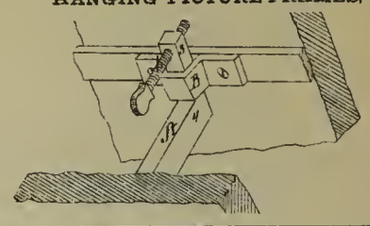
102,803, CHAS. EDWARD GIBBS. COMB-CLEANERS.



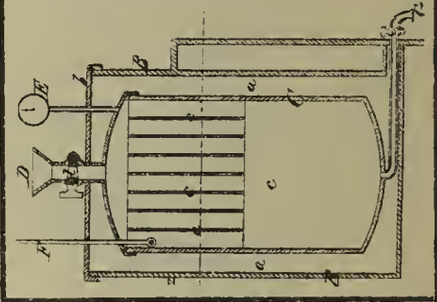
102,804, W. C. GIFFORD. STANCHIONS FOR CATTLE.



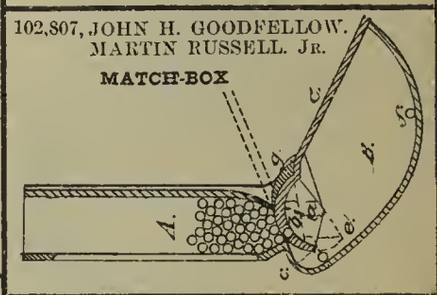
102,805, JOHN N. GILLISPIE. DEVICE FOR HANGING PICTURE-FRAMES, &c.



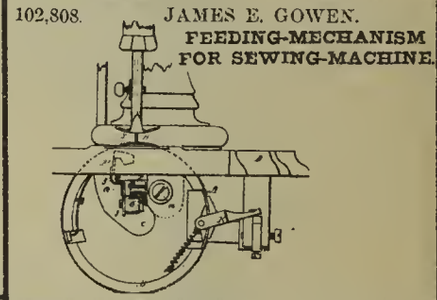
102,806, SAMUEL H. GILMAN REFINING AND AGEING LIQUORS.



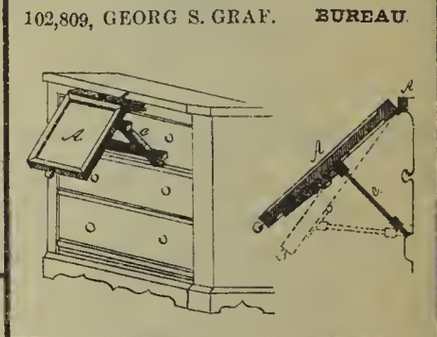
102,807, JOHN H. GOODFELLOW. MARTIN RUSSELL. JR. MATCH-BOX



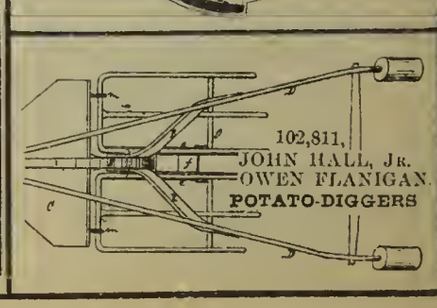
102,808. JAMES E. GOWEN. FEEDING-MECHANISM FOR SEWING-MACHINE.



102,809, GEORG S. GRAF. BUREAU.

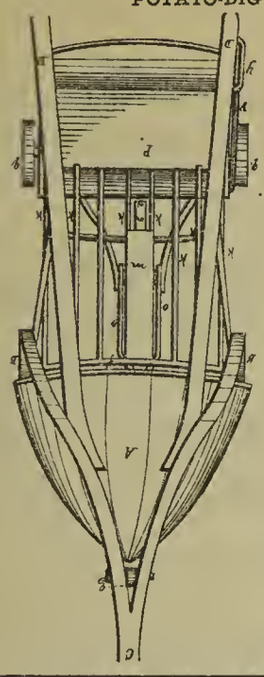


102,810, HENRY F. HAACK. PADLOCKS

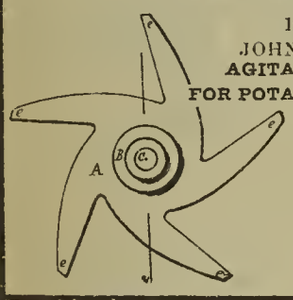


102,811, JOHN HALL, JR. OWEN FLANIGAN. POTATO-DIGGERS

102,812, JOHN HALL, Jr.
POTATO-DIGGER.



102,813.
JOHN HALL, Jr.
AGITATOR-WHEEL FOR POTATO-DIGGERS.



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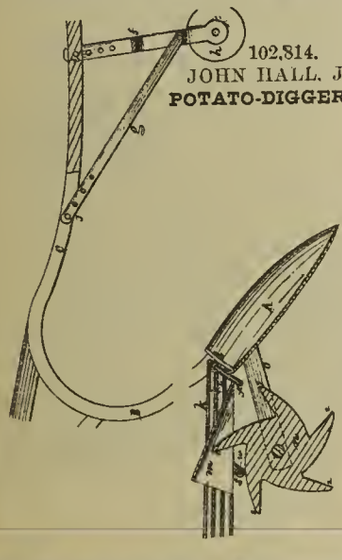
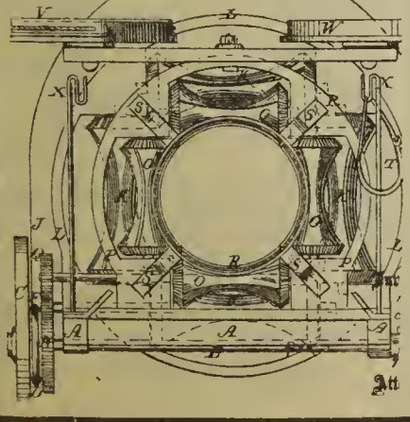
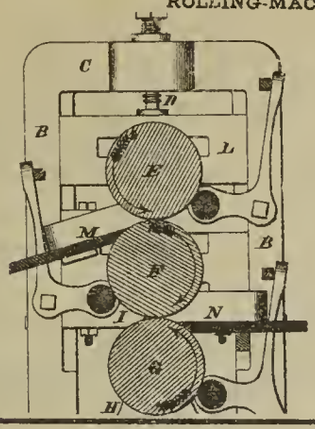
JOHN HALL, Jr.
POTATO-DIGGERS.



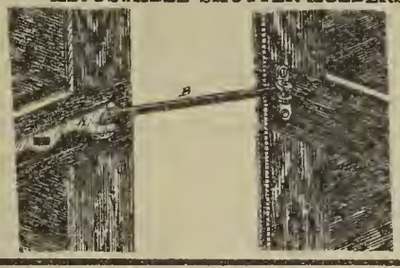
102,815. W. D. HARRAH.
I. M. GIFFORD, AND E. T. JOHNSON
GRAIN BINDER.



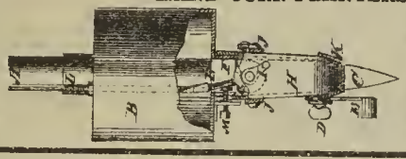
102,816. JOHN B. HASTINGS.
GEORGE HASTINGS, Jr.
ROLLING-MACHINE.



102,817, CYRUS N. HERR.
ADJUSTABLE SHUTTER-HOLDERS.



102,818, HENRY HICKMAN.
HAND CORN-PLANTERS.



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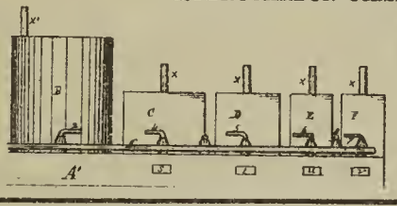
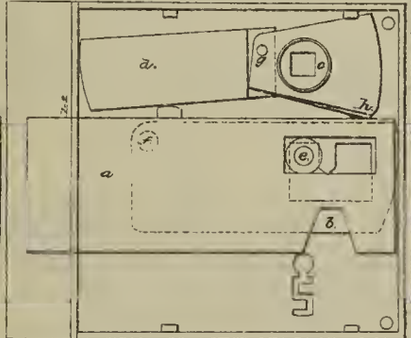
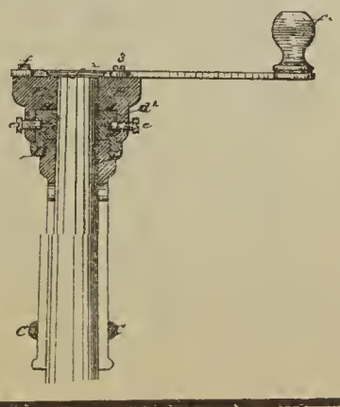
CHAS. F. THUMM.
APPARATUS FOR DISTILLING HYDROCARBON OILS.

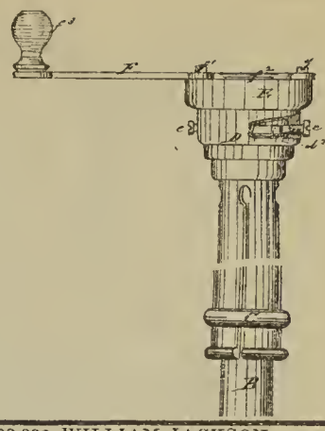


102,820, FRIEDRICH HOPPE.
COMBINED LATCH AND LOCK.

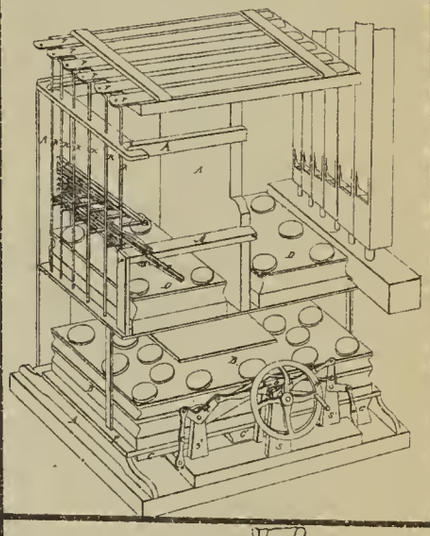


102,821, JOSEPH HUBER.
CUE-CUTTING MACHINE.

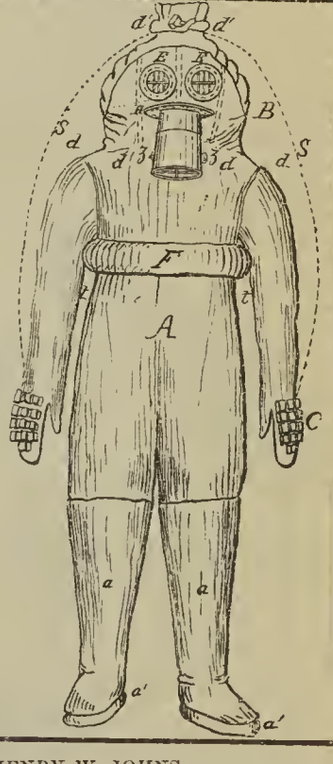




102,822, WILLIAM JACKSON.
CHURCH-ORGANS.

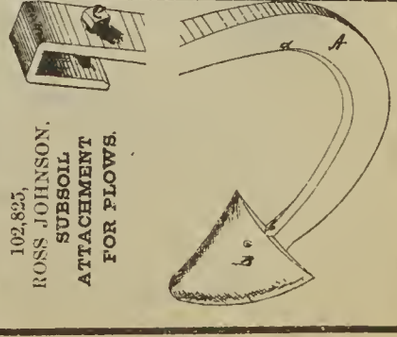


102,823, LYMAN JACOBS.
LIFE-PRESERVERS.

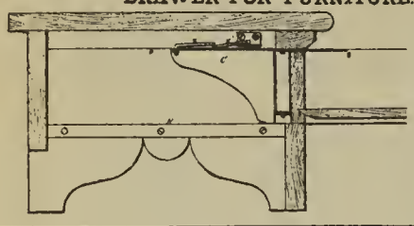


102,824, HENRY W. JOHNS.
ACID AND WATER-PROOF COMPOSITION FOR COATING CLOTH.

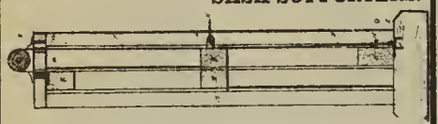
102,825,
ROSS JOHNSON.
SUBSOIL ATTACHMENT FOR PLOWS.



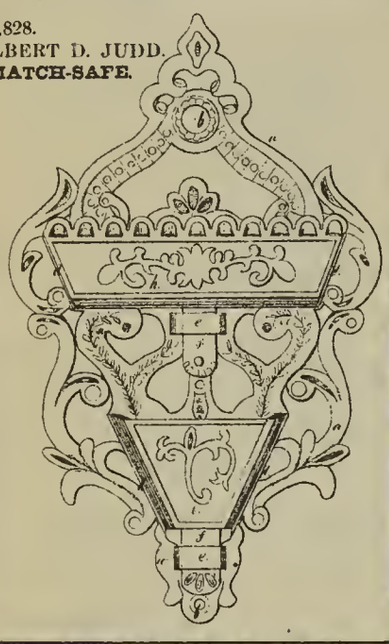
102,826, GEO. F. JOYCE.
DRAWER FOR FURNITURE.



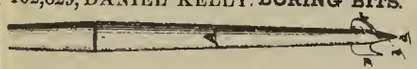
102,827, GEO. F. JOYCE.
SASH-SUPPORTERS.

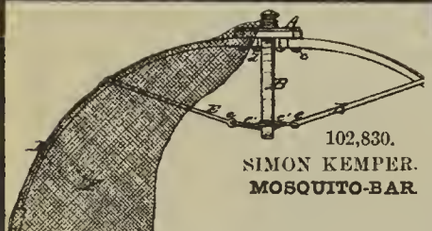


102,828.
ALBERT D. JUDD.
MATCH-SAFE.



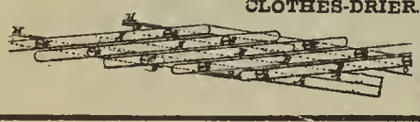
102,829, DANIEL KELLY. **BORING BITS.**





102,830.
SIMON KEMPER.
MOSQUITO-BAR.

102,831, H. H. KENDRICK.
CLOTHES-DRIER.

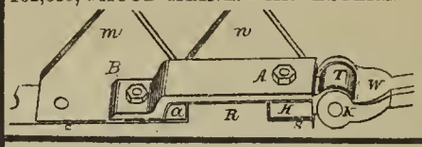


102,832, S. H. KENNEDY.
APPARATUS FOR OBTAINING TANNING EXTRACTS.

102,833, HERMANN H. KESSLER.
MANUFACTURE OF MEDICATED MALT LIQUORS.

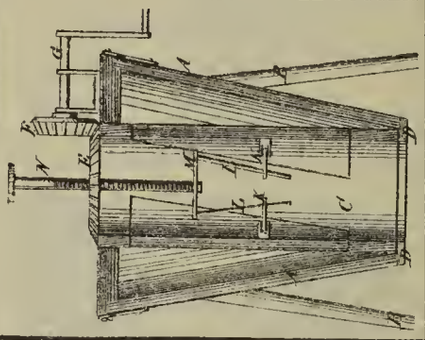
102,834, EDWARD KIRK. **FENCE.**

102,835, JACOB KLINE. **HARVESTERS.**

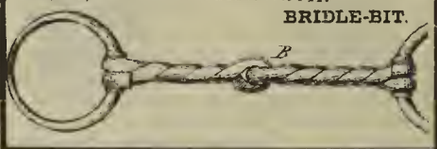


102,836, WILLIAM KRAMER.
HEALING-PLASTERS.

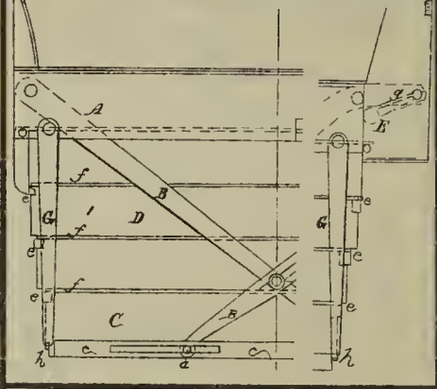
102,837, H. P. LAUER.
H. C. REICHARD.
VEGETABLE-CUTTER.



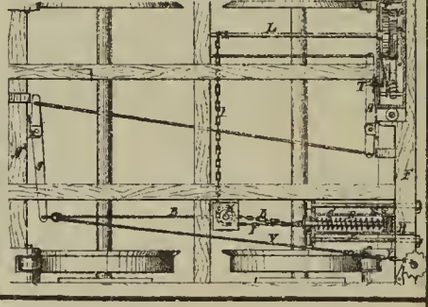
102,838, WM. P. LETCHWORTH.
BRIDLE-BIT.



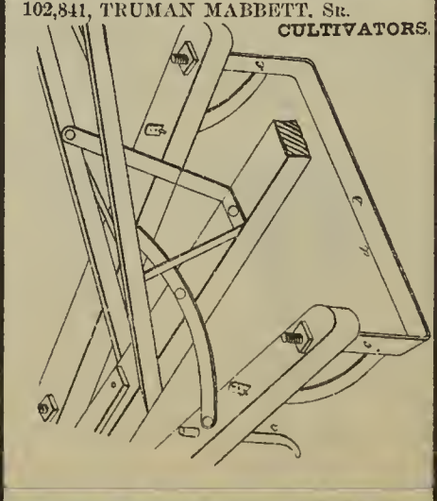
102,839, CHRISTOPHER LIDREN.
PLATFORMS FOR HARVESTERS.



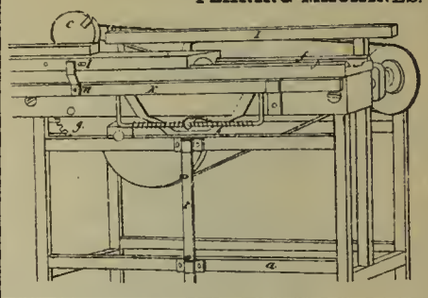
102,840, ALMERIN H. LIGHTHALL.
RAILWAY-CAR BRAKES.



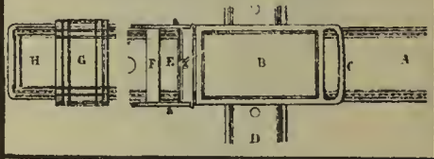
102,841, TRUMAN MABBETT, SR.
CULTIVATORS.



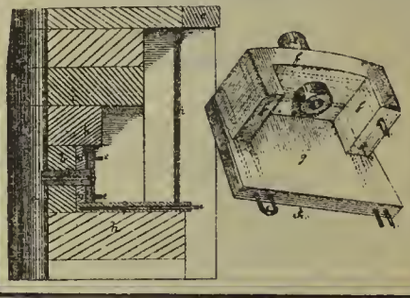
102,842, GEORGE H. MANSFIELD.
PLANING-MACHINES.



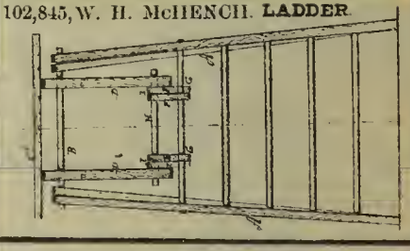
102,843, THOMAS C. MARTIN.
JAMES OFFINEER.
TRACE-BUCKLE.



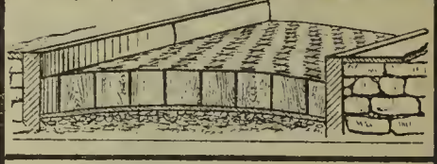
102,844, THOMAS W. McCUNE.
TWEERS OF BLAST-FURNACES.



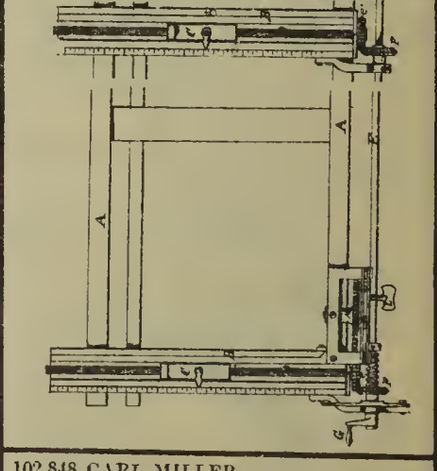
102,845, W. H. McHENCH. **LADDER.**



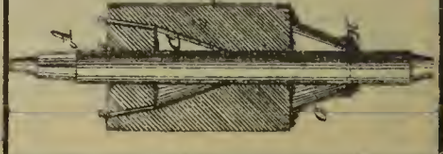
102,846, A. B. McKEON. **PAVEMENTS.**



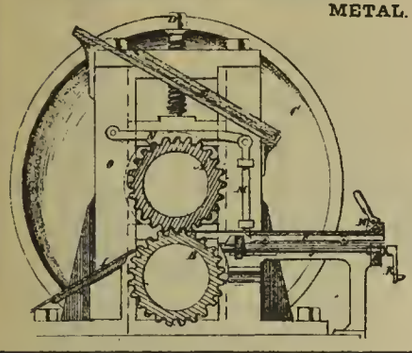
102,847, CORNELIUS MEINERS.
HEAD-BLOCKS OF SAW-MILLS.



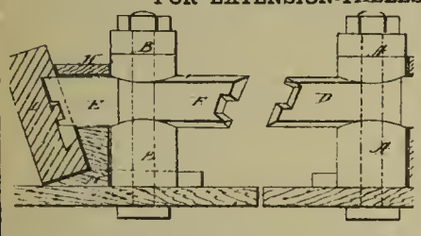
102,848, CARL MILLER.
SELF-PACKING BUSHES FOR SPINDLES.



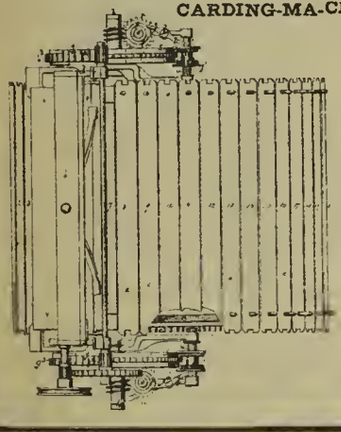
102,849, JAMES MONTGOMERY
APPARATUS FOR CORRUGATING METAL.



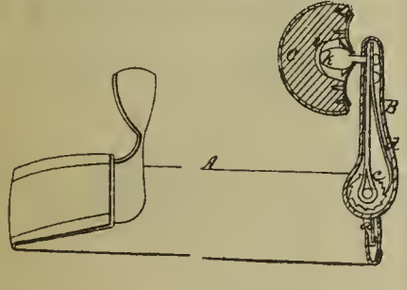
102,850, S. J. MOORE.
G. A. BUCKMAN
TOOLS FOR MAKING SLIDES FOR EXTENSION-TABLES.



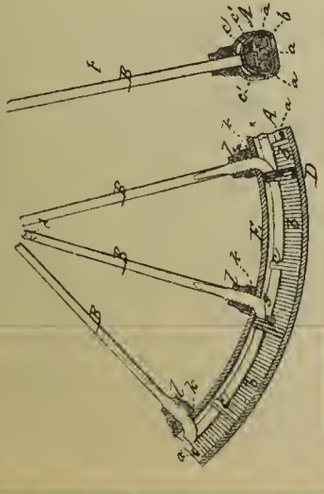
102,851, FERDINAND MORF.
MECHANISM FOR STRIPPING THE TOP FLATS OF CARDING-MA-CHINES.



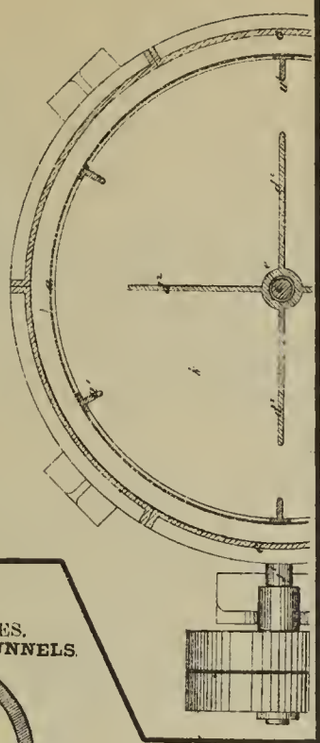
102,852, PETER MÜLLER. **TRUSSES.**



102,853, IRA F. MUNSON.
WHEEL FOR VEHICLES.



102,854, W. E. NEWTON.
APPARATUS FOR CLEANING AND PREPARING RAGS FOR MANUFACTURE OF PAPER.



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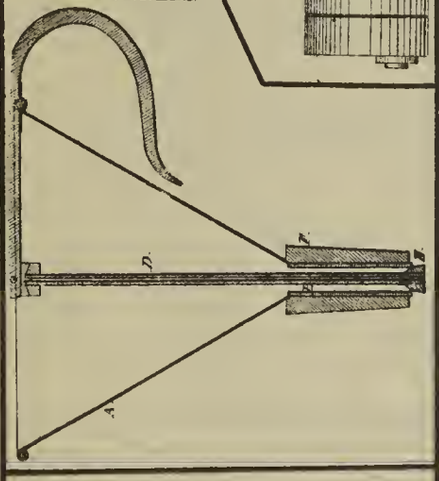
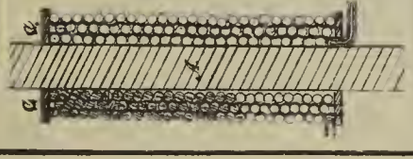
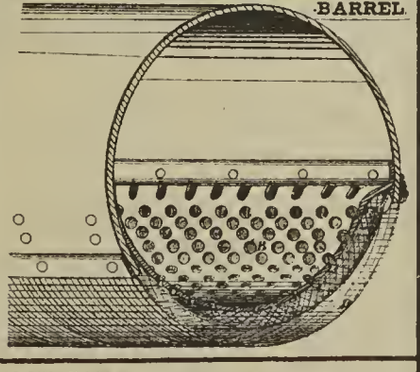
P. H. NILES.
FUNNELS.



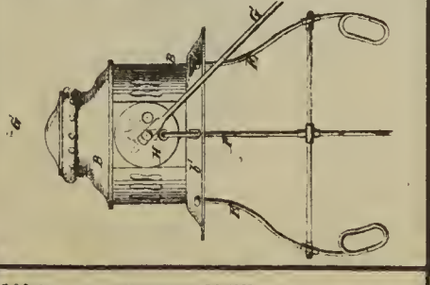
102,856, HENRY M. PAINE.
ELECTRO-MAGNETS.



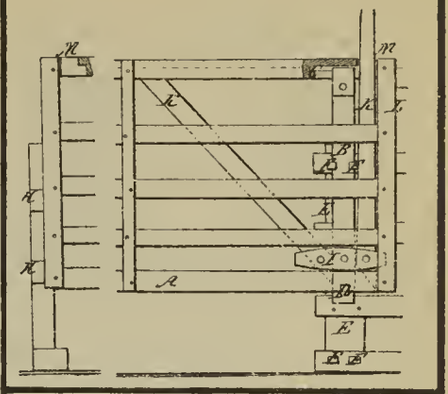
102,857, ALMARIN B. PAUL.
SELF-DISCHARGING PULVERIZING BARREL.



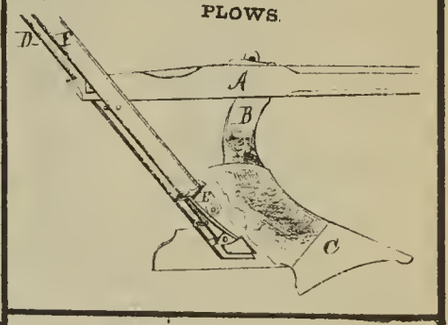
102,858, SAML. PETERS. **LANTERNS.**



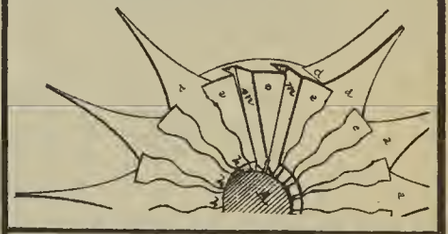
102,859, HOWARD PIPER.
FARM-GATES.



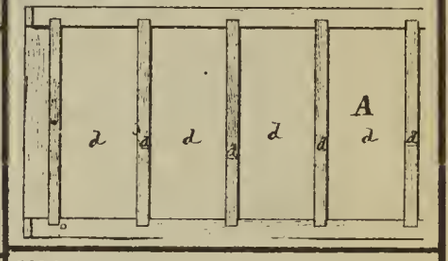
102,860, S. W. POPE.
PLOWS.



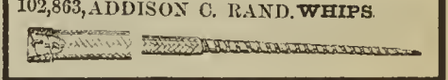
102,861, ROBERT POTTS.
NATHANIEL OGDEN.
SPOKES FOR WAGON-WHEELS.



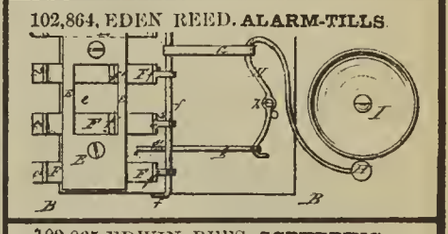
102,862, ALBERT T. PUTNAM.
BRICK-MOLDS AND BOTTOM-BOARDS.



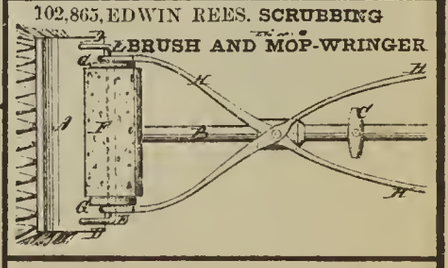
102,863, ADDISON C. RAND. **WHIPS.**



102,864, EDEN REED. **ALARM-TILLS.**



102,865, EDWIN REES. **SCRUBBING BRUSH AND MOP-WRINGER.**



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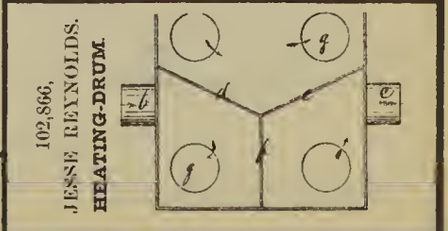
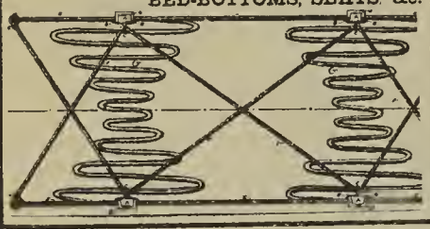
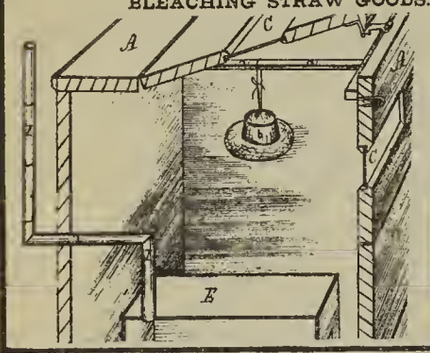
JESSE REYNOLDS.
HEATING-DRUM.



102,867, CHARLES RICH.
CONNECTION OF SPRINGS FOR BED-BOTTOMS, SEATS, &c.

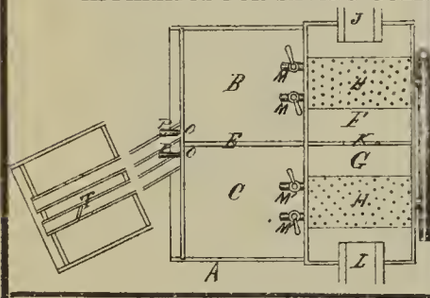


102,868, AMANDA M. her + mark. ROSBRUGH.
BLEACHING STRAW GOODS.

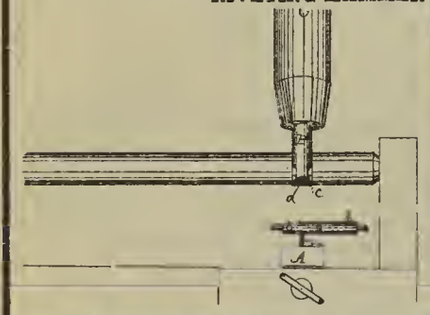


102,869, ELMOR J. SALISBURY.
PRESERVING AND HARDENING STONE, BRICK, &c.

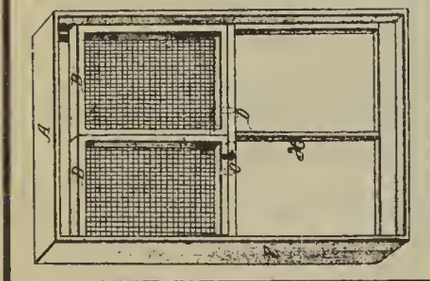
102,870, CHARLES SCHOFIELD.
APPARATUS FOR SAVING GOLD.



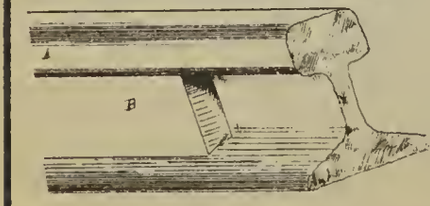
102,871, HENRY A. SEYMOUR.
WILLFORD H. NETTLETON.
RIVETING-HAMMER.



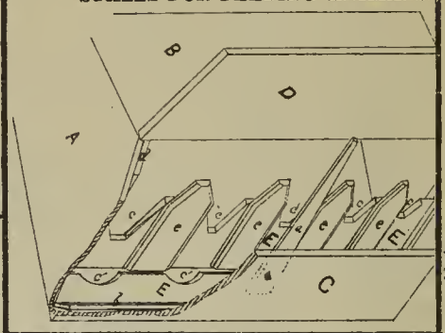
102,872, GEORGE SHATSWELL.
WINDOW-SCREEN.



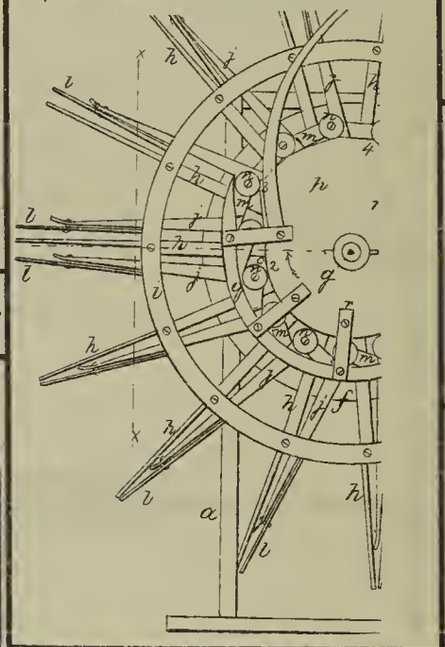
102,873, GEORGE SHATSWELL.
FASTENING FOR RAILWAY RAILS.



102,874, S. H. SHAW.
STALLS FOR FEEDING ANIMALS.

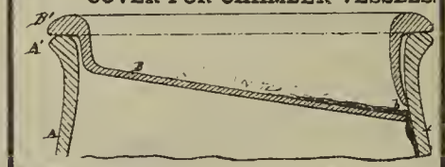


102,875, JAMES SMITH. **FLAX-PULLERS.**

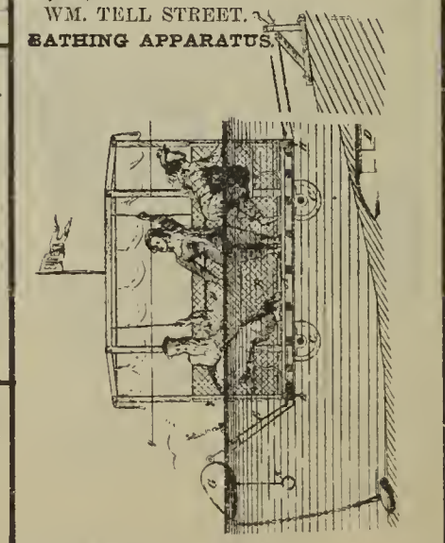


102,876, EDGAR A. STANLEY.
AXLE-NUTS.

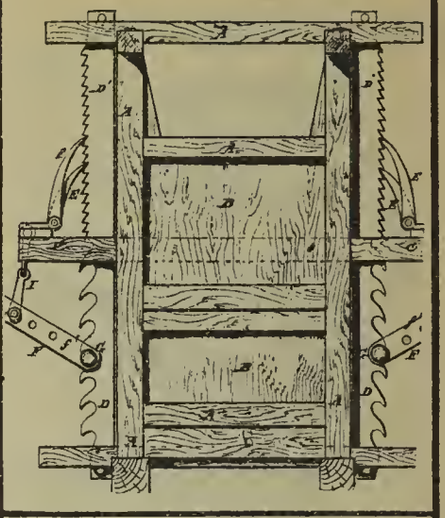
102,877, WILLIAM STOCKTON.
COVER FOR CHAMBER VESSELS.



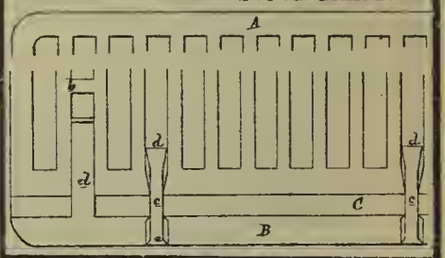
102,878,
WM. TELL STREET.
BATHING APPARATUS.



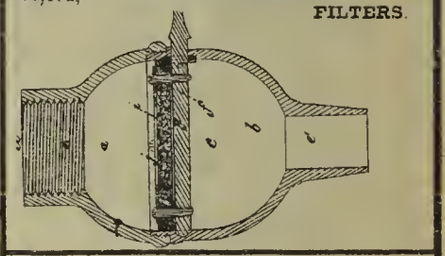
102,879 BRYANT F. STROUD.
BALING-PRESSES.



102,880, LEVI STUCK.
STOVE-GRATE.



102,881, TAYLOR P. THOMPSON.
FILTERS.



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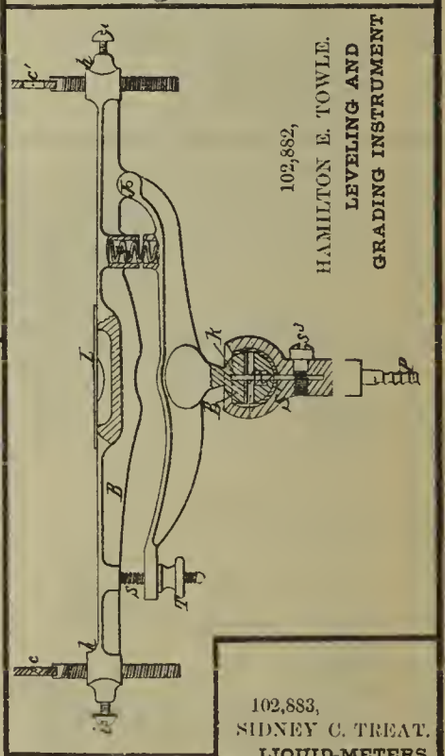
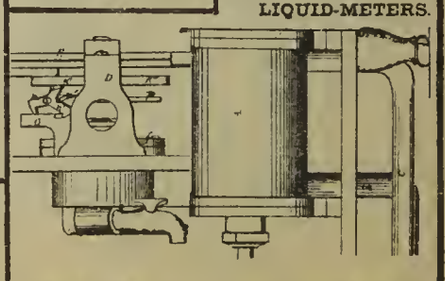
HAMILTON E. TOWLE.
LEVELING AND GRADING INSTRUMENT.

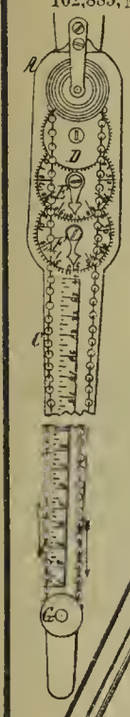


102,883,
SIDNEY C. TREAT.
LIQUID-METERS.

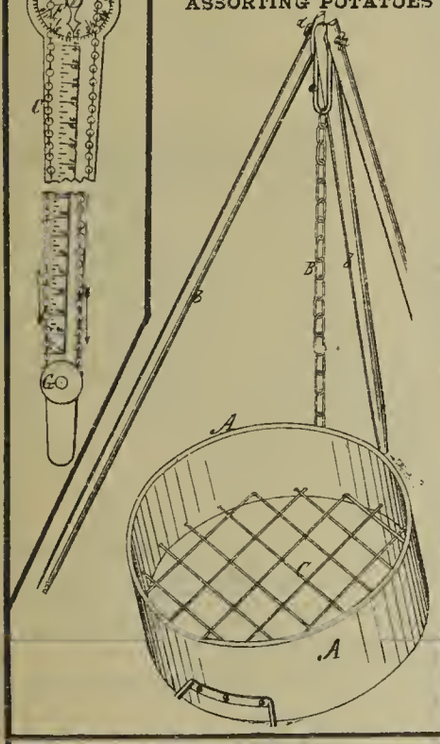


102,884, A. TRENAUNAY.
WOODEN-BLOCK PAVEMENTS.

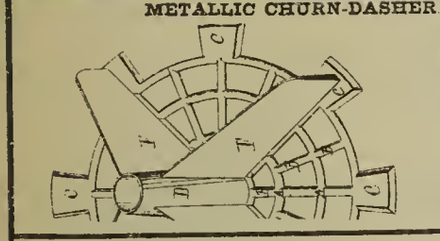
102,885, MELZER TUELLS.
IMPLEMENT FOR MEASURING BOARDS.



102,886,
JOHN F. UNGLISH.
APPARATUS FOR ASSORTING POTATOES



102,887, ORRIN UPDIKE.
METALLIC CHURN-DASHER



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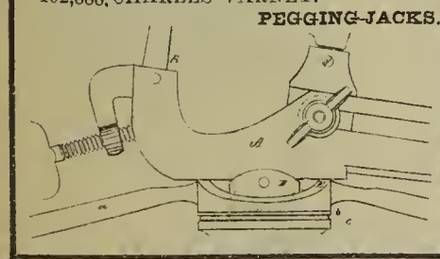
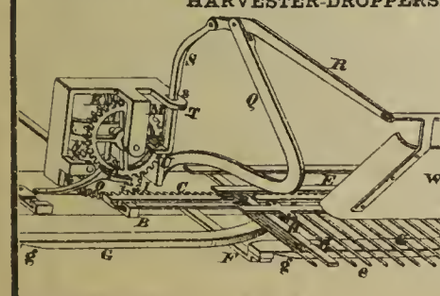
PEGGING-JACKS.

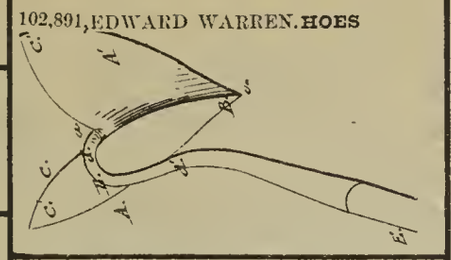


102,889, DAVID VOGT.
HARNESS-BUCKLE.

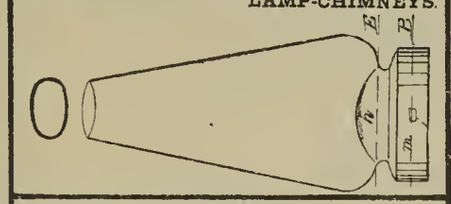
102,890, AARON WARD.
HARVESTER-DROPPERS.



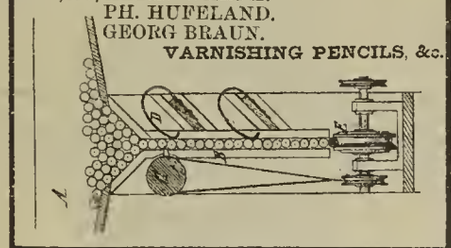
102,891, EDWARD WARREN. **HOES**



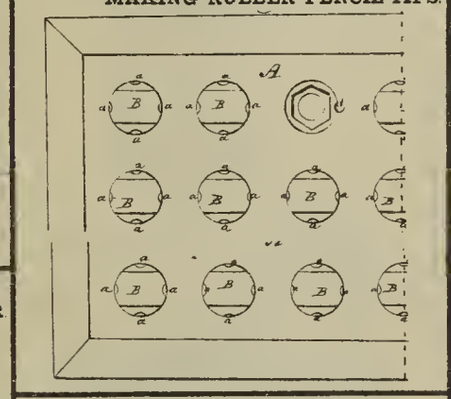
102,892, SYLVESTER W. WARREN.
LAMP-CHIMNEYS.



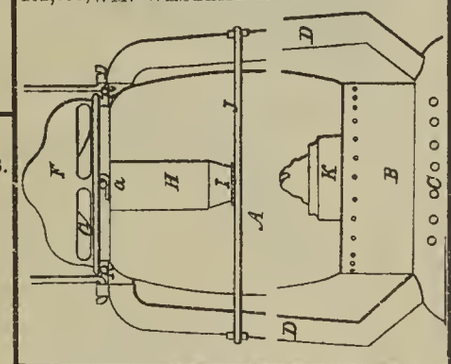
102,893, ALBIN WARTH.
PH. HUFELAND.
GEORG BRAUN.
VARNISHING PENCILS, &c.



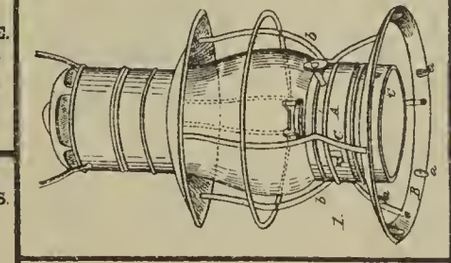
102,894, WILLIAM WEICKER. **MOLDS FOR MAKING RUBBER PENCIL TIPS.**



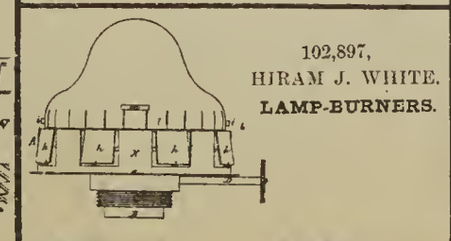
102,895, WM. WESTLAKE. **LANTERNS.**



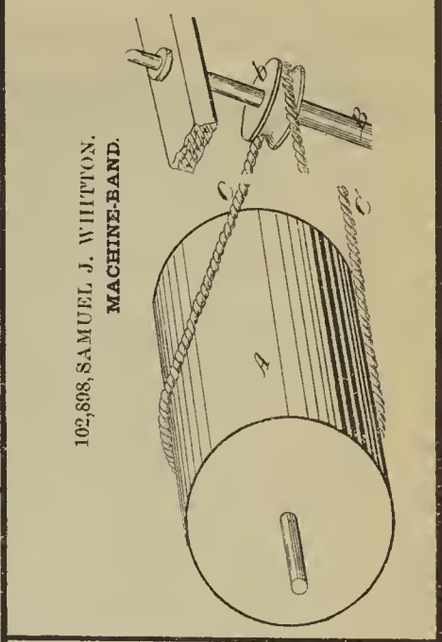
102,896, WILLIAM WESTLAKE.
LANTERNS.



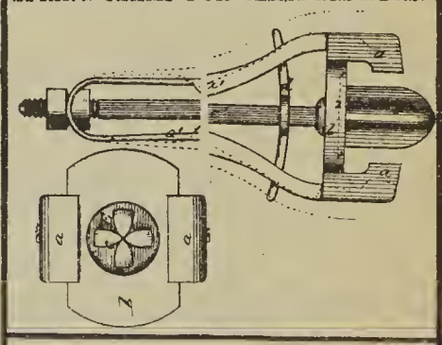
102,897,
HIRAM J. WHITE.
LAMP-BURNERS.



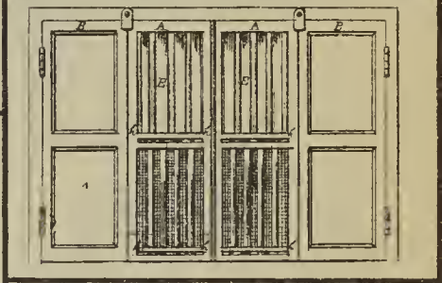
102,898, SAMUEL J. WHITTON.
MACHINE-BAND.



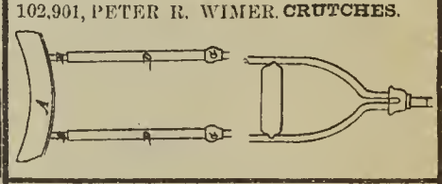
102,899, THOS. WIGHTMAN.
SPRING CLAMP FOR GLASS-BLOWERS.



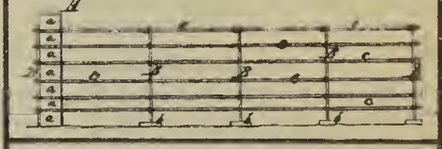
102,900, BENJN. J. WILLIAMS.
BLIND, SCREEN, AND SHUTTER.



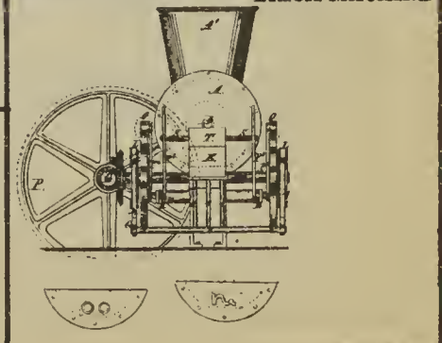
102,901, PETER R. WIMER. **CRUTCHES.**



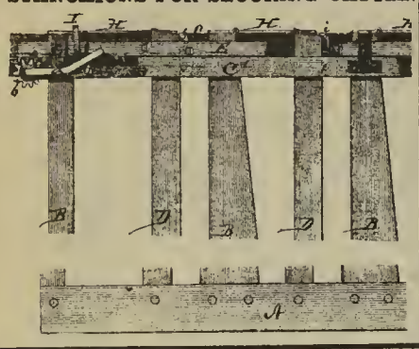
102,902, HENRY C. WIRE.
WIRE AND STONE FENCE COMBINED



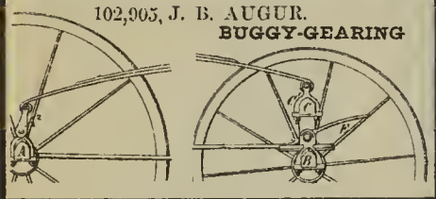
102,903, ROBERT WOLFF.
BRICK-MACHINE



102,904, ELIJAH S. ALVORD.
STANCHIONS FOR SECURING CATTLE.

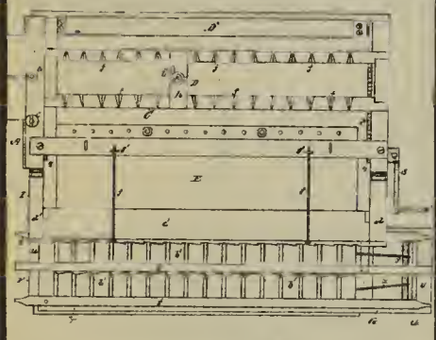


102,905, J. B. AUGUR.
BUGGY-GEARING

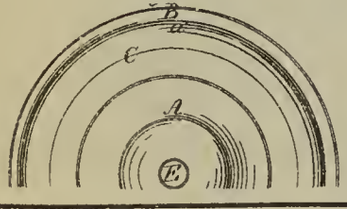


102,906, HAYDN M. BAKER.
MANUFACTURE OF SOAP.

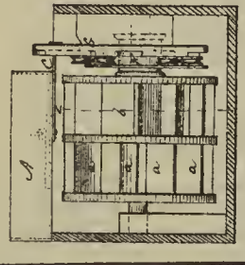
102,907, LURANDUS BEACH.
LURANDUS L. BEACH, JR.
MACHINES FOR CUTTING, STAMPING, AND PACKING SOAP.



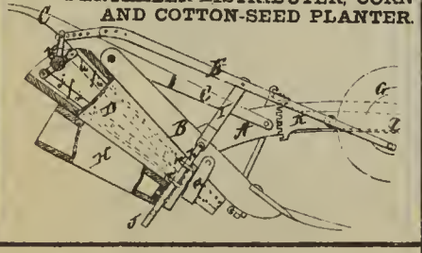
102,908, CHAS. K. BRADFORD.
RAILWAY-CAR WHEEL.



102,909, TRUMAN BRISTOL.
WATER-WHEELS



102,910, RHODOM M. BROOKS.
FERTILIZER-DISTRIBUTER, CORN AND COTTON-SEED PLANTER.

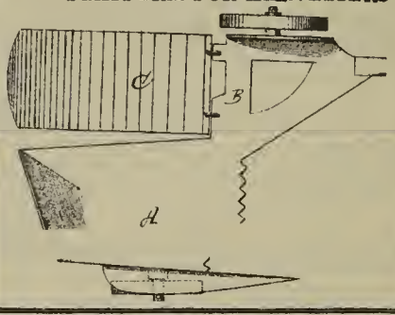


102,911, HY. BROWNING.
COMPOSITION FOR VARNISHES, &c.

102,912, J. PALMER BUDD.
MANUFACTURE OF IRON AND STEEL.

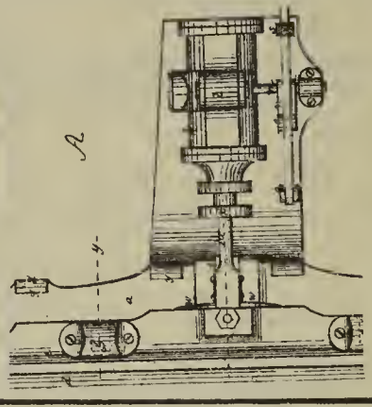
102,913. J. L. MASON. **FRUIT JAR.**

102,914, E. P. CADY. **DROPPING PLATFORM FOR HARVESTERS**

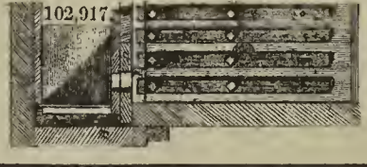


102,915, JAMES MARSHALL CALDWELL.
GEORGE W. CALDWELL.
INDELIBLE WRITING-FLUIDS OR INKS.

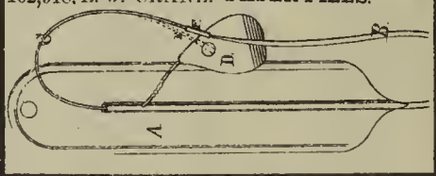
102,916, ETHAN R. CHENEY. **MACHINE FOR STRAIGHTENING BARS OF METAL**



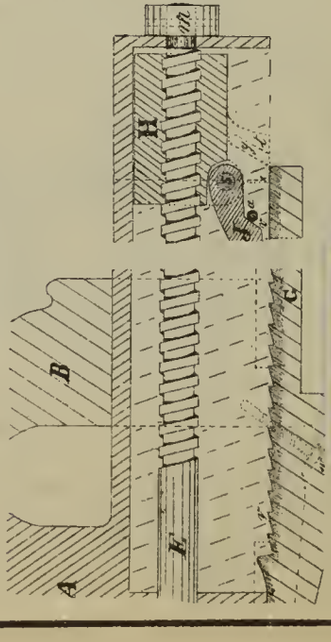
WILLIAM COURTNEY. **BEE-HIVES.**
102,917.



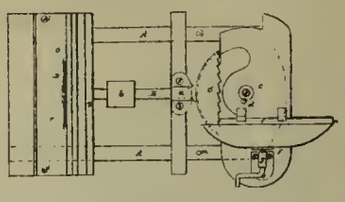
102,918, E. J. CRANE. **PAPER-FILES.**



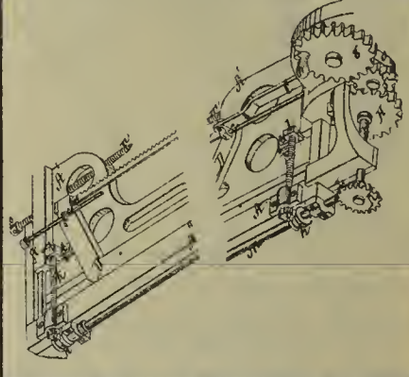
102,919, EDWIN CRAWLEY.
THOMAS L. BAYLIES
VISES.



102,920, CHARLES HENRY DANA
MACHINE FOR THE MANUFACTURE OF WOODEN TRAYS.

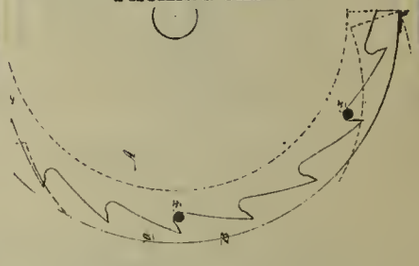


102,921, MARCUS E. DEAN.
SAWING-MACHINES.

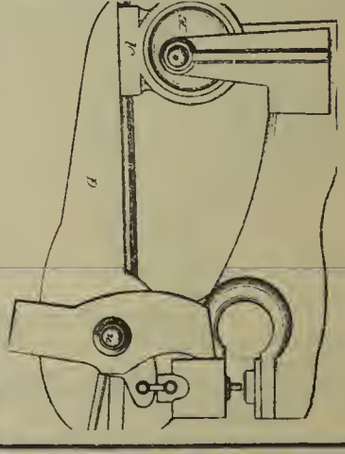


102,922, P. S. DEVLAN. **COMPOSITION FOR COATING WOOD, METAL, &c.**

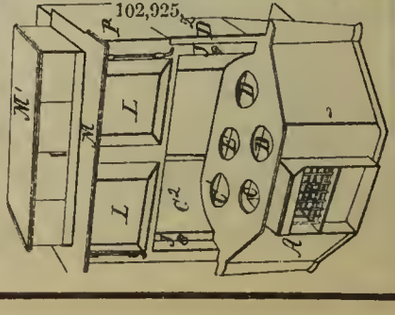
102,923 HENRY DISSTON.
PACKING-CASE FOR SAWS.



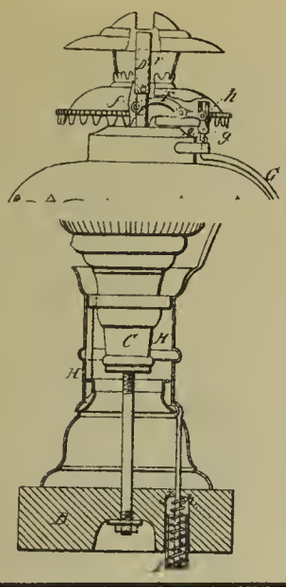
102,924, ELLIS DOTY.
MACHINES FOR PUNCHING METAL.



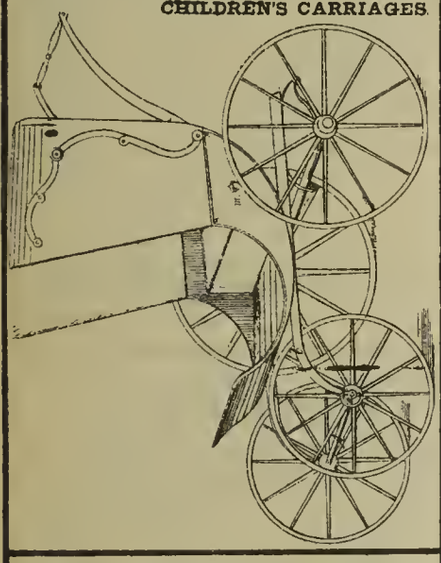
B. WELLS DUNKLEE. **COOKING-RANGE.**
102,925.



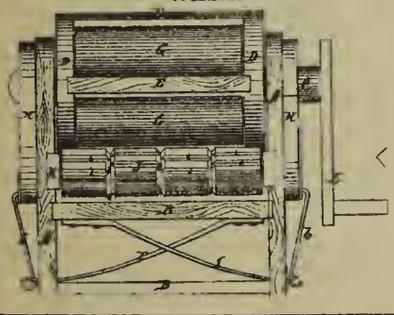
102,926, WILLIAM C. EBERT.
LAMP-EXTINGUISHERS.



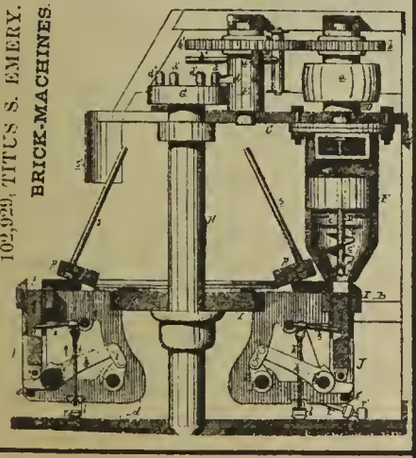
102,927, ROSCOE G. ELDER.
CHILDREN'S CARRIAGES.



102,928, DANIEL ELICKER.
WASHING-MACHINE.

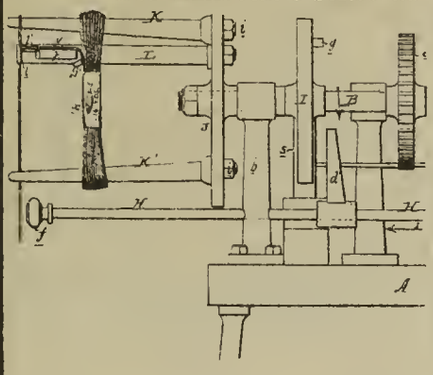


102,929, TITUS S. EMERY.
BRICK-MACHINES.

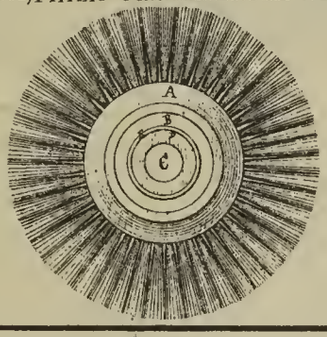


ELIJAH EVANS.
102,930,
STOVE-LEGS.

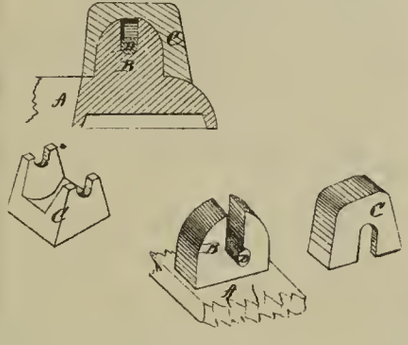
102,931, GEORGE PENRICE FARMER.
MACHINE FOR FOLDING OR WINDING AND MEASURING CORDS, &c.



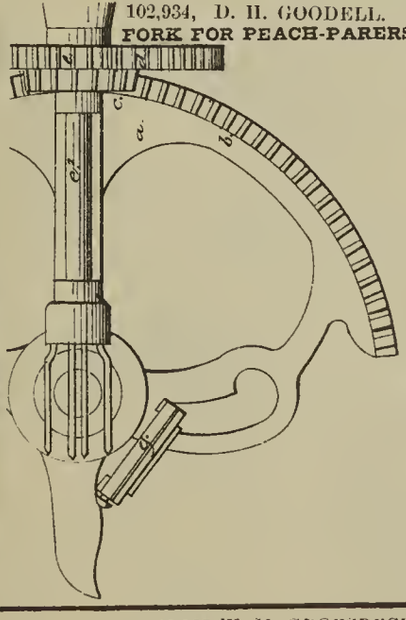
102,932, PHILIP FELKER. BRUSH-WHEEL



102,933, JAMES M. FIFE.
CASTING LUGS IN STOVE-PLATES.

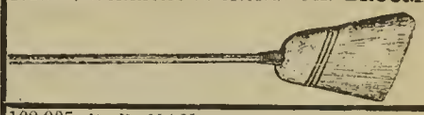


102,934, D. H. GOODELL.
FORK FOR PEACH-PARERS.

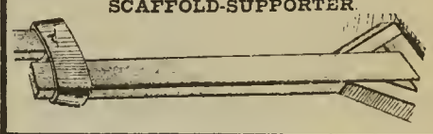


102,935, W. H. GROESBECK.
HOLD-BACK FOR VEHICLES.

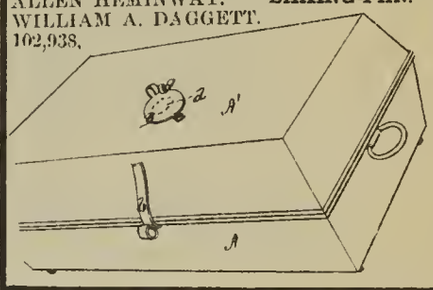
102,936, WILLIAM S. HANCOCK. BROOM



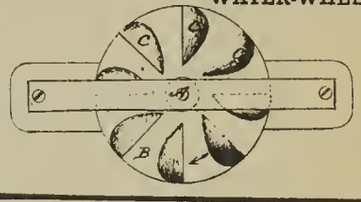
102,937, D. B. HAY.
SCAFFOLD-SUPPORTER.



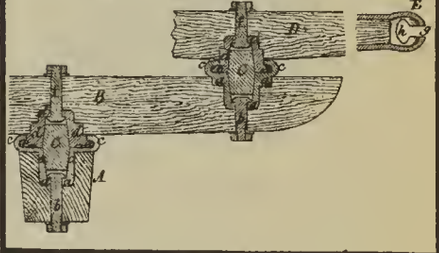
ALLEN HEMINWAY. BAKING-PAN.
WILLIAM A. DAGGETT.
102,938.



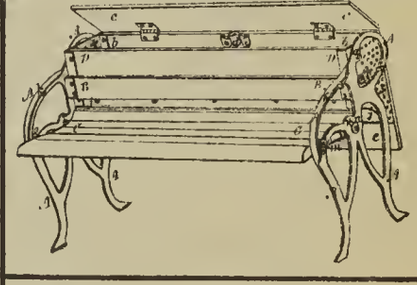
102,939, WM. H. HUBBARD.
WATER-WHEELS.



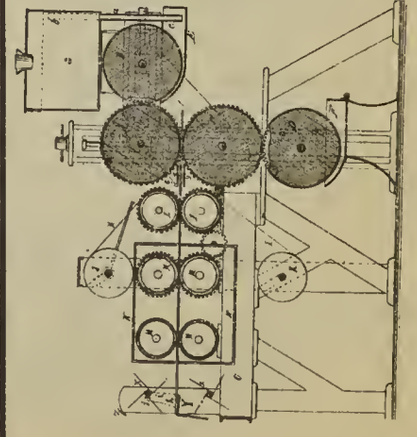
102,940, JOSEPH INGELS.
DOUBLE AND SINGLE-TREE FASTENINGS FOR CARRIAGES.



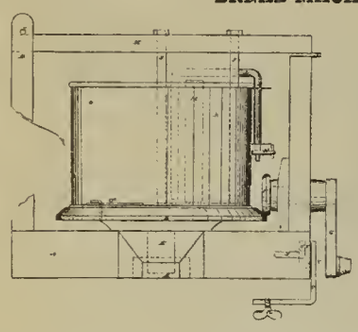
102,941, JOSEPH INGELS.
SCHOOL-DESK AND SEAT.



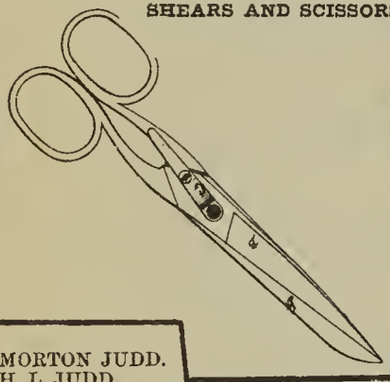
102,942, GUSTAV L. JAEGER.
MACHINES FOR LINING AND DRYING PASTEBOARD, &c.



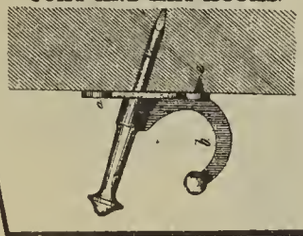
102,943, LEMUEL P. JENKS. BREAD-MACHINE.



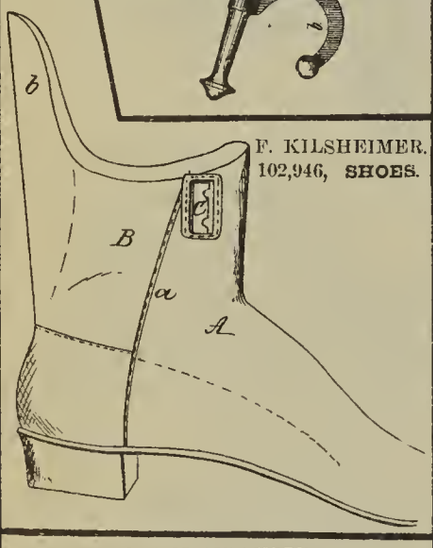
102,944, CHARLES C. JOHNSON. SHEARS AND SCISSORS.



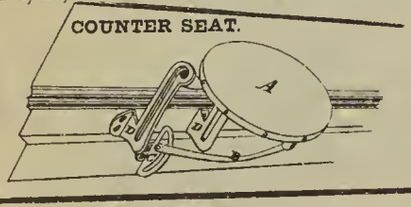
MORTON JUDD.
H. L. JUDD.
102,945, COAT AND HAT-HOOKS.



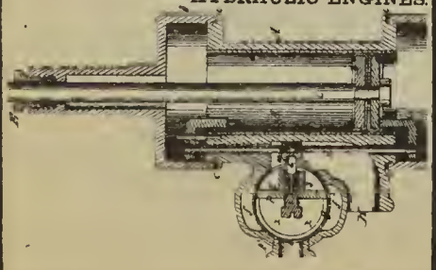
F. KILSHEIMER.
102,946, SHOES.



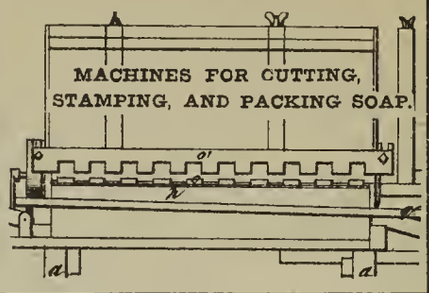
102,947, DANIEL H. KRAUSER. COUNTER SEAT.



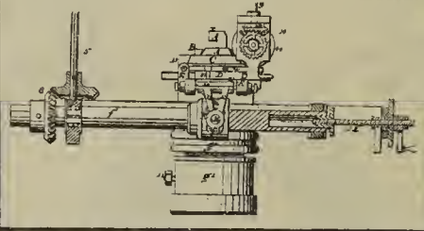
102,948, A. D. LAWS. HYDRAULIC ENGINES.



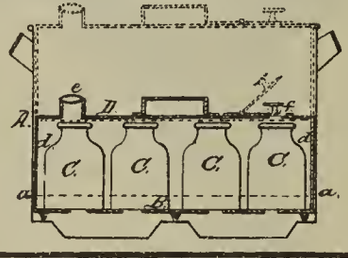
102,949, CHARLES LEHMANN. MACHINES FOR CUTTING, STAMPING, AND PACKING SOAP.



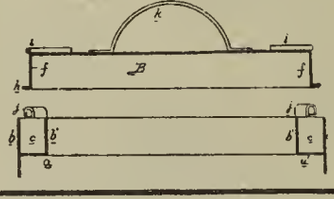
102,950, THOS. LIPPIATT. MACHINE FOR ENGRAVING AND CHASING ARTICLES OF METAL.



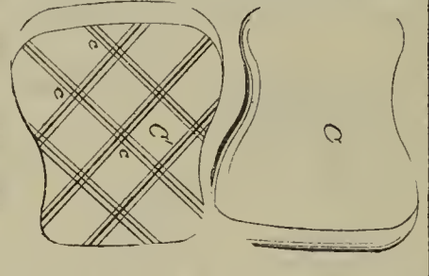
102,951, WILLIAM W. LYMAN. APPARATUS FOR PRESERVING FRUIT.



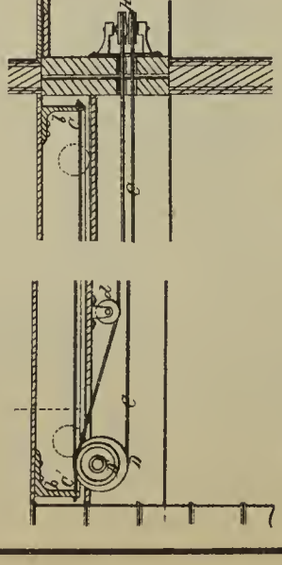
102,952, STIMMEL LUTZ. FRUIT-CANS.



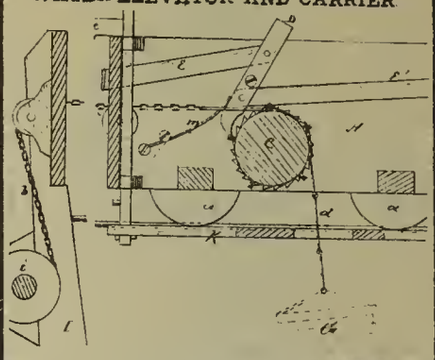
102,953, C. K. MARSHALL. HARNESS-SADDLES.



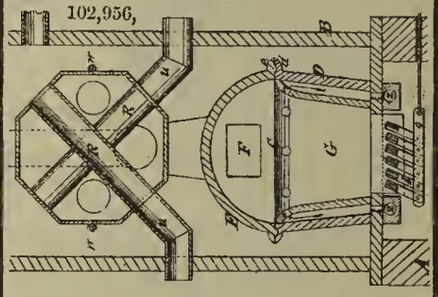
102,954, JAMES H. McKEENAN. MODE OF OPERATING SHUTTERS FOR HATCHWAYS.



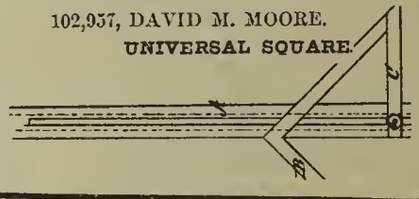
102,955, ARCHIBALD A. McPHEETERS. ROBERT P. McPHEETERS. WATER-ELEVATOR AND CARRIER.



GEO. H. MILLER. HOT-AIR FURNACE.
102,956,

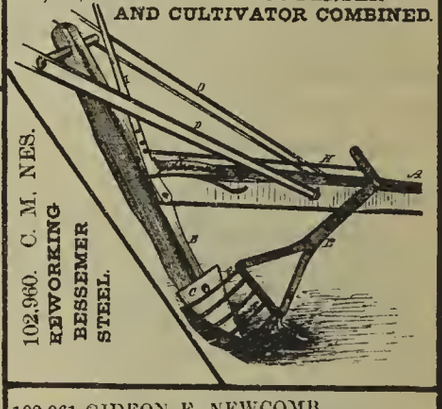


102,957, DAVID M. MOORE. UNIVERSAL SQUARE.



102,958, ELIZA D. MURFEY. MATERIAL FOR PACKING JOURNALS AND BEARINGS.

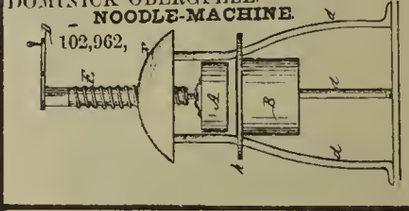
102,959, B. F. NEELY. CLOD-FENDER AND CULTIVATOR COMBINED.



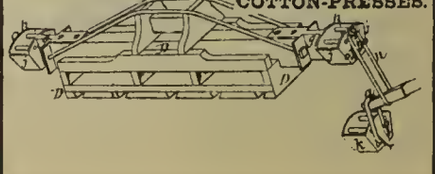
102,960. C. M. NES. REWORKING BESSEMER STEEL.

102,961, GIDEON E. NEWCOMB. BOOT AND SHOE-HEEL.

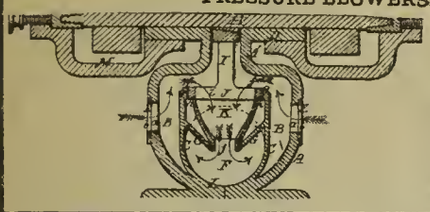
DOMINICK OBERGFELL. NOODLE-MACHINE.
102,962,



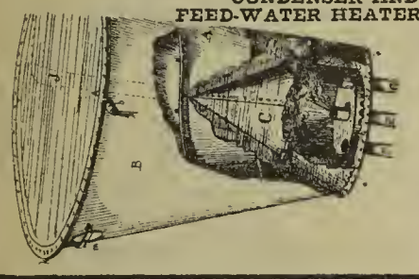
102,963, WILLIAM PENDLETON. HENRY M. BOARDMAN. COTTON-PRESSES.



102,964, JOSEPH PERRAULT.
PRESSURE BLOWERS.



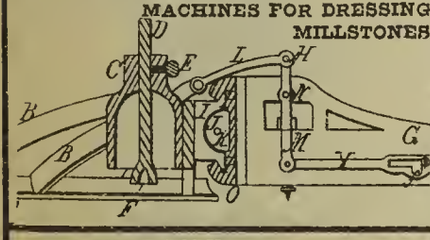
102,965, WILLIAM PHELAN.
CONDENSER AND FEED-WATER HEATER.



102,966, ZEPHANIAH PHILLIPS.
CARPENTERS' PLANE.

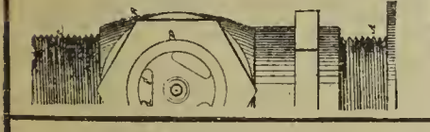
102,967, HUGH M. PHINNEY
VENTILATOR-REGISTER.

102,968, WILLIAM PICKENS.
PETER DALRYMPLE.
MACHINES FOR DRESSING MILLSTONES.



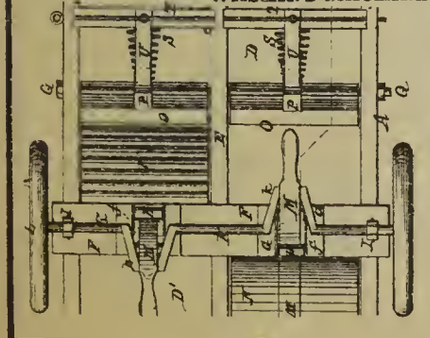
102,969, JUAN POEY.
MANUFACTURE OF SUGAR.

102,970, JOHN H. RHODES.
ATMOSPHERIC VALVE FOR HOUSE BOILERS.

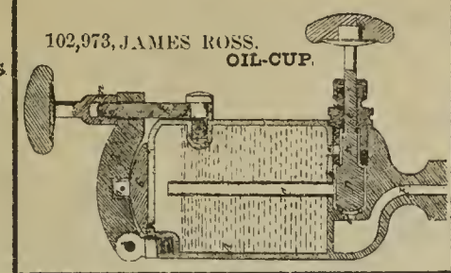


102,971 HIRAM ROBBINS.
ROLLER-SKATES.

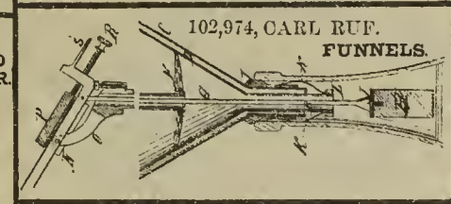
102,972, JOB ROBINSON.
WASHING-MACHINE.



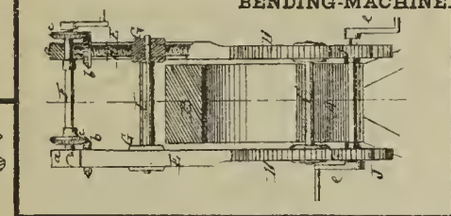
102,973, JAMES ROSS.
OIL-CUP.



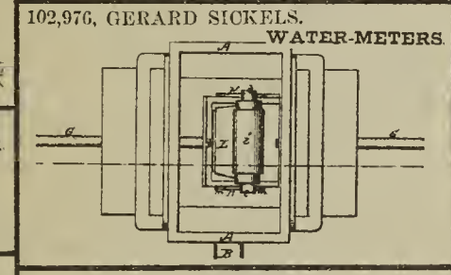
102,974, CARL RUF.
FUNNELS.



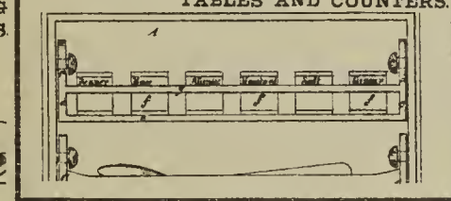
102,975, J. J. H. SERCOMBE.
BENDING-MACHINE.



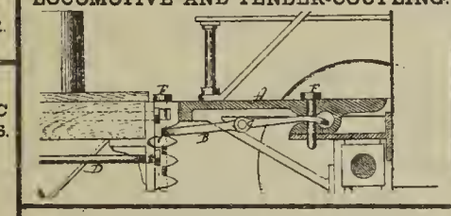
102,976, GERARD SICKELS.
WATER-METERS.



102,977, SIGMUND SIMONSON.
TABLES AND COUNTERS.



102,978, THOS. D. SIMPSON.
LOCOMOTIVE AND TENDER-COUPLING.



102,979, LUTHER SISSON.
GARDEN-RAKES.

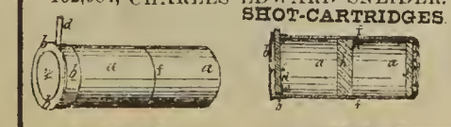
102,980 GEO. H. SMITH.
MEDICAL COMPOUND.

102,981, JOHN C. SMITH. WASHING-SOAP

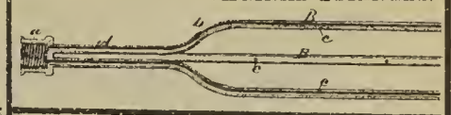
102,982,
JOHN E. SMITH.
HAT-CHECKS.

102,983, THOS. FRANKLIN SMITH.
MEDICATED SOAP.

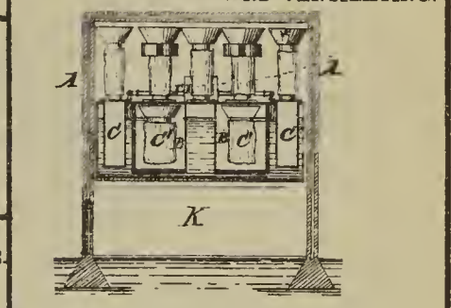
102,984, CHARLES EDWARD SNEIDER.
SHOT-CARTRIDGES.



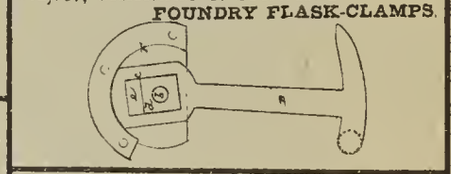
102,985, WILLIAM B. SNYDER.
VAGINAL SYRINGES.



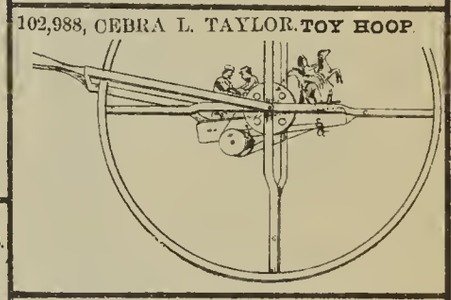
102,986, D. E. SOMES.
APPARATUS AND PROCESS FOR REFRIGERATING, PRESERVING, AND VENTILATING.



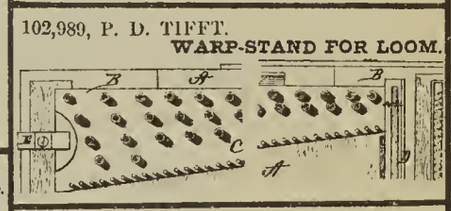
102,987, CHARLES C. STEWART
FOUNDRY FLASK-CLAMPS.



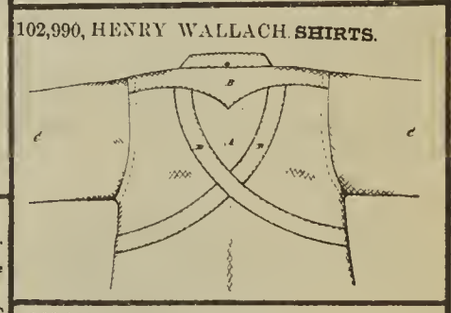
102,988, CEBRA L. TAYLOR. TOY HOOP.



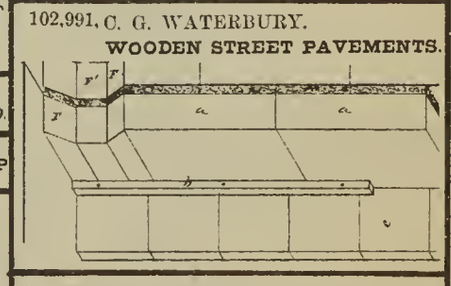
102,989, P. D. TIFFT.
WARP-STAND FOR LOOM.



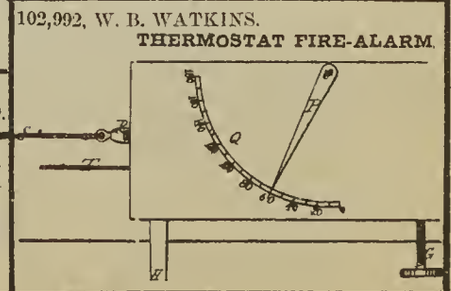
102,990, HENRY WALLACH. SHIRTS.



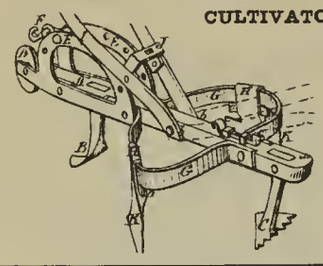
102,991, C. G. WATERBURY.
WOODEN STREET PAVEMENTS.



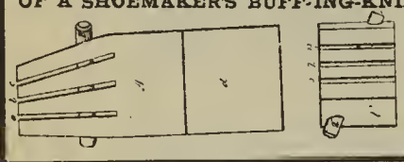
102,992, W. B. WATKINS.
THERMOSTAT FIRE-ALARM.



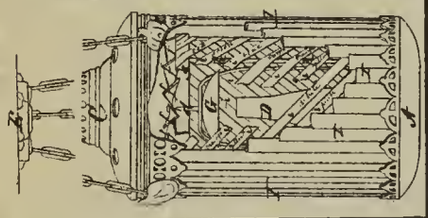
102,993. NATHAN G. WEBBER.
CULTIVATORS.



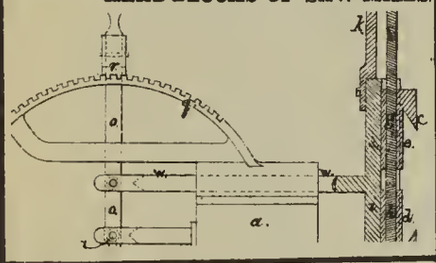
102,994, B. B. WEBSTER.
IMPLEMENT FOR TURNING THE EDGE OF A SHOEMAKER'S BUFF-ING-KNIFE.



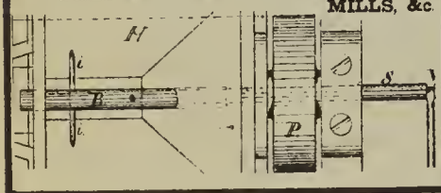
102,995, A. W. WEHRHAN.
LAMPS FOR HALLS, GARDENS, &c.



102,996, WINSLOW WELLINGTON.
HEAD-BLOCKS OF SAW-MILLS.



102,997, JAMES D. WHELPLEY.
JACOB J. STORER.
FEED APPARATUS FOR GRINDING MILLS, &c.



102,998, CHARLES P. WHITMAN.
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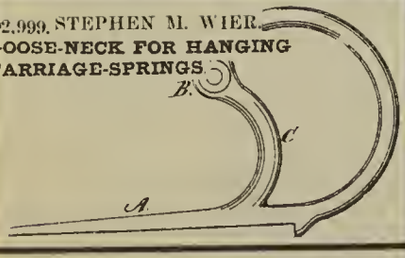
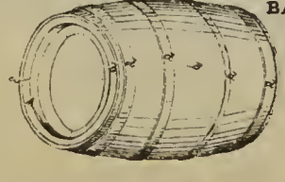
102,999, STEPHEN M. WIER.
GOOSE-NECK FOR HANGING CARRIAGE-SPRINGS.



103,000, HENDERSON WILLARD.
BARREL.



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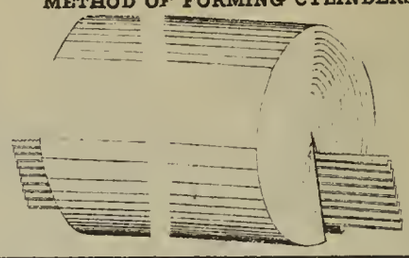
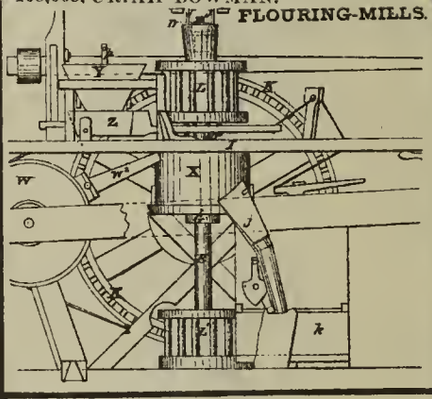
METHOD OF FORMING CYLINDERS.

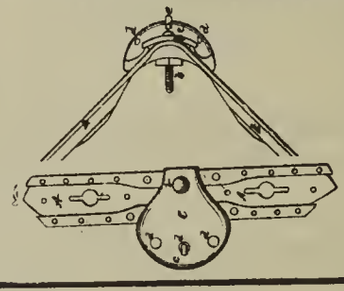


103,002. A. L. WILLIAMS.
FLOUR BOLTING REEL.

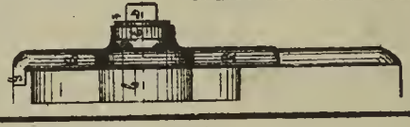
103,003, URIAH BOWMAN.
FLOURING-MILLS.



103,004, PETER BURNS.
SEATS FOR HARNESS-SADDLES.



3,963, JOHN B. FLETCHER.
RAILWAY AXLE-BOX.



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THOMAS SMITH HUDSON.
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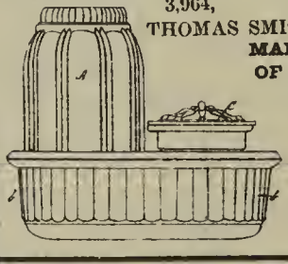
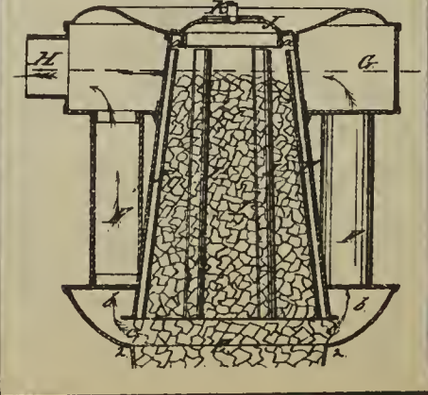
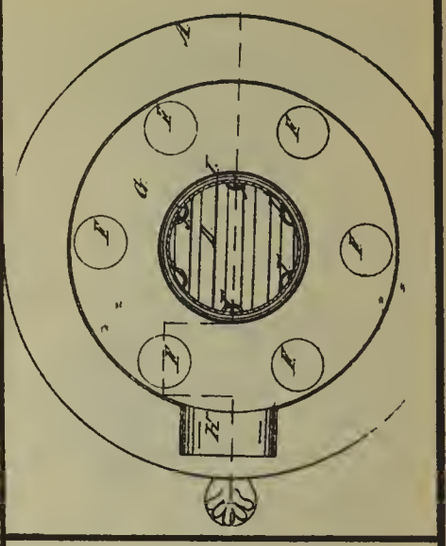
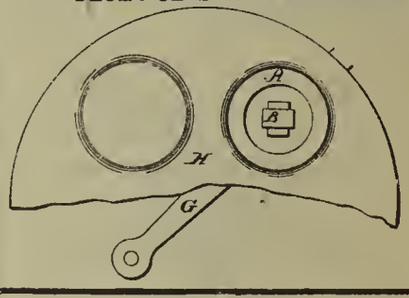


3,965, GEO. G. HUNT.
BASE-BURNING STOVE.





3,966, EDWARD REGAN.
DEVICE FOR FLANGING FLUE-HOLES OF BOILER-HEADS.



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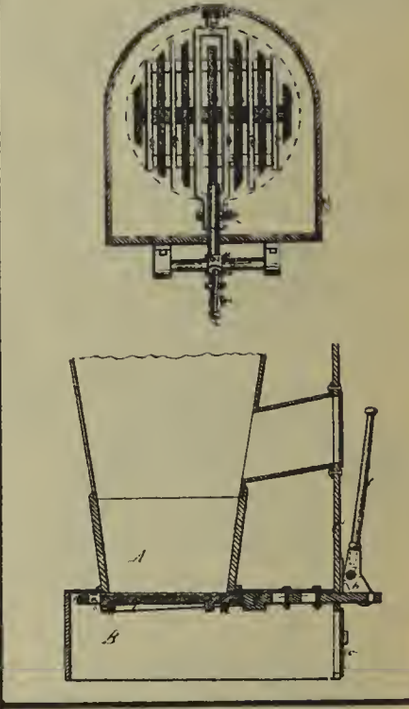
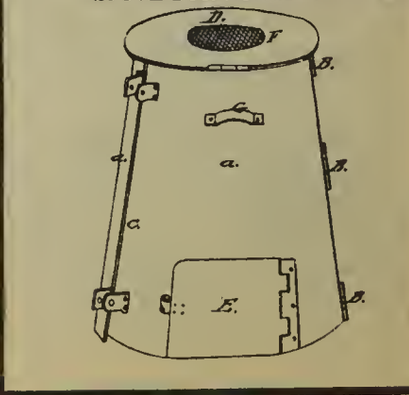
GRATES FOR FURNACES.



3,968, HENDERSON WILLARD.
STOVE FOR BURNING STUMPS.



ILLUSTRATIONS OF PATENTS

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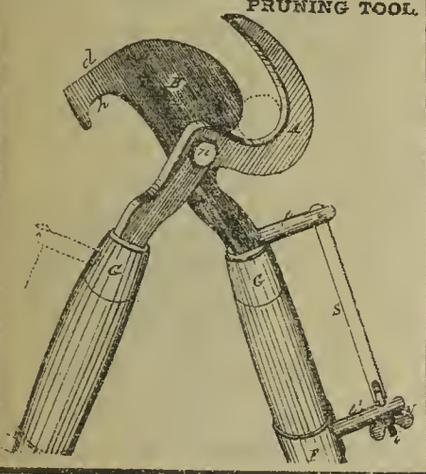
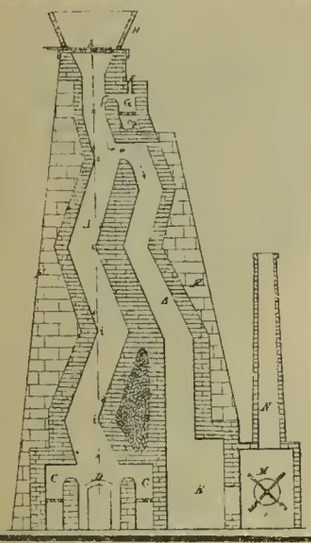
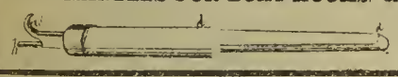
103,005. G. W. AINSLEY.
PRUNING TOOL.



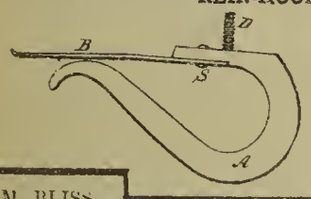
103,006. I. P. AREY.
FURNACE FOR ROASTING, OXIDIZING AND CHLORIDIZING ORES.



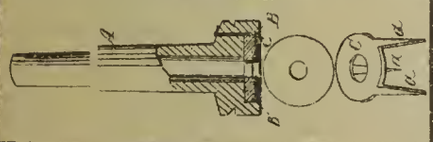
103,007, FRANCIS F. BIBBER.
HANDLES FOR BOAT-HOOKS, &c.



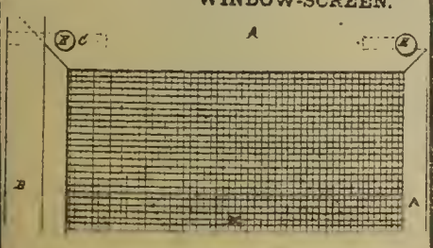
103,008. GRINFILL BLAKE.
REIN-HOOK.



103,009, M. BLISS.
BOBBINS.



103,010, A. C. BROWN.
WINDOW-SCREEN.



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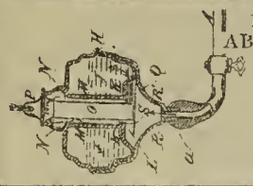
ABNER BURBANK.
LAMPS.



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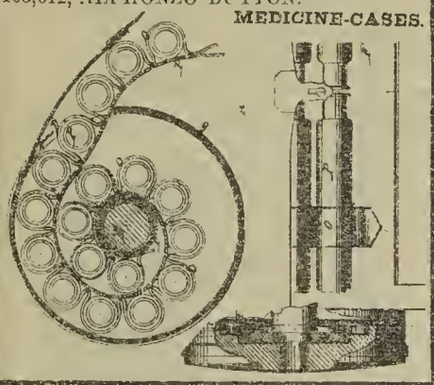
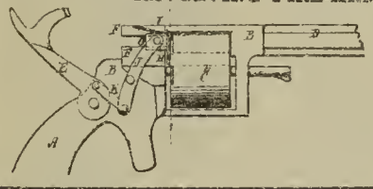
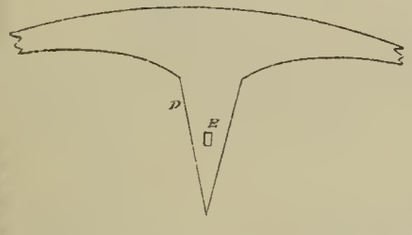
MEDICINE-CASES.



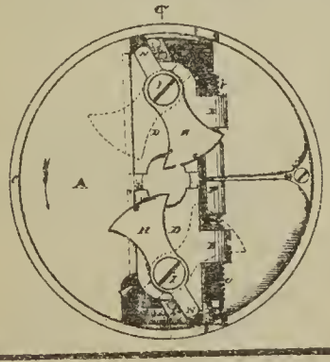
103,013. GEORGE W. H. CALVER, M. D.
REVOLVING FIRE-ARMS.



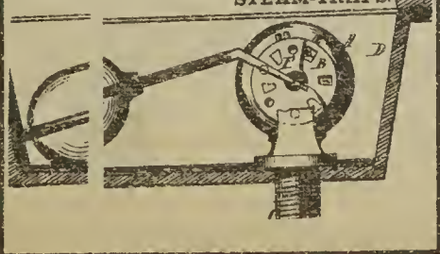
103,014, CHAS. CARROLL.
DIGGING AND TAMPING-PICK.



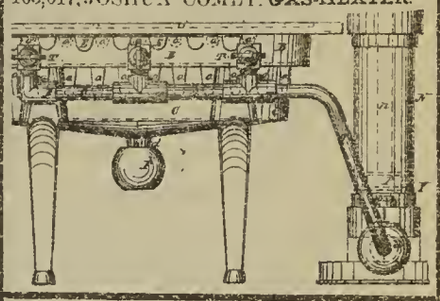
103,015. LORING COES. **AUTOMATIC FRICTION DOG LATHE-CHUCK.**



103,016, ISAIAH B. COLEMAN.
STEAM-TRAPS.

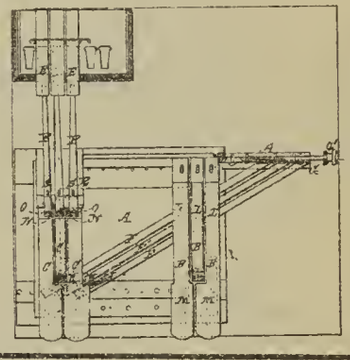


103,017, JOSHUA COMLY. **GAS-HEATER.**



103,018, JOSEPH J. COMSTOCK.
JAMES ABORN.
MANUFACTURE OF IMITATION HAIR-CLOTH.

103,019, GEORGE COOK.
SUB-BASE REED-ORGAN COUPLERS.



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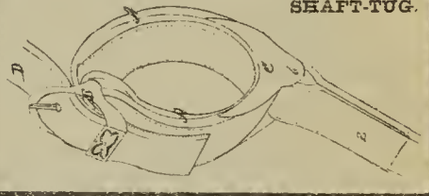
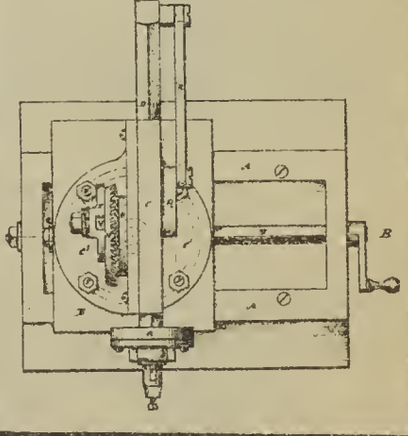
SHAFT-TUG.



103,021, ALFRED B. COUCH.
SHAPING-MACHINE.



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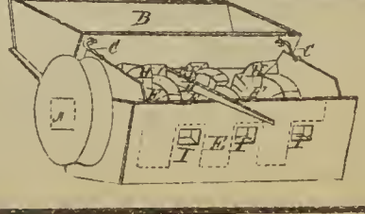
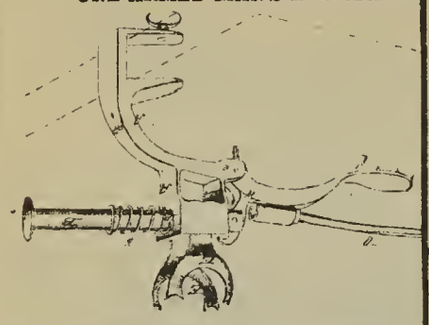
SEEDING-MACHINES.



103,023, GEORGE W. DALBEY.
ONE-ARMED MAN'S ASSISTANT.



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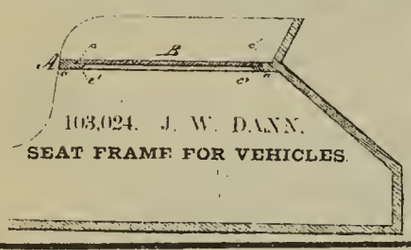
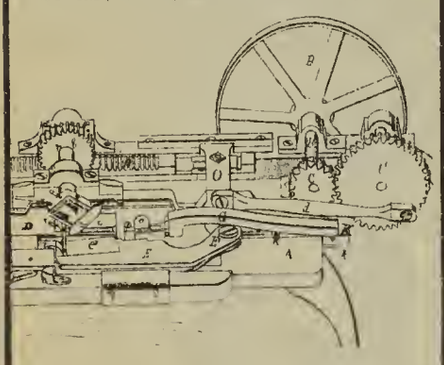
SEAT FRAME FOR VEHICLES.



103,025, MAXIME DECELLE.
SPIKE, BOLT, AND RIVET-MACHINE



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103,027, G. DIEULAFOY.
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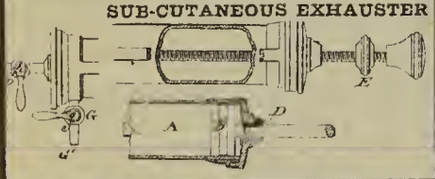
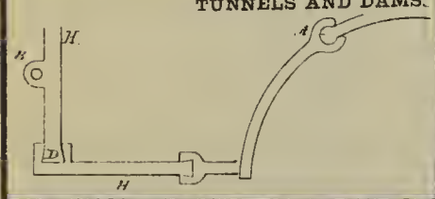


103,028, LEWIS DODGE.
CONSTRUCTION OF TUNNELS AND DAMS.



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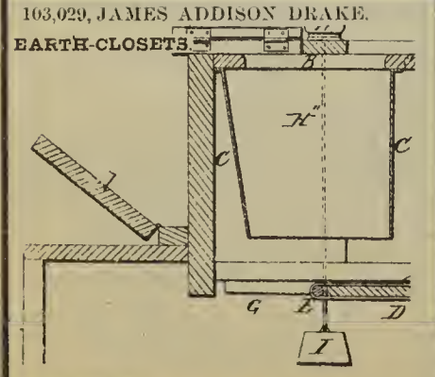
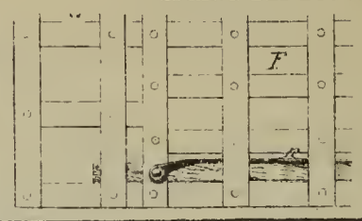
EARTH-CLOSETS.



103,030. JAMES F. DUFFY.
WILLIAM P. FRAILEY.
SPRING BED-BOTTOM.



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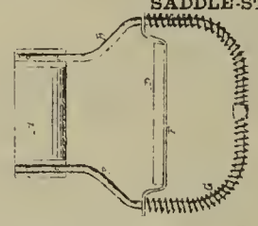
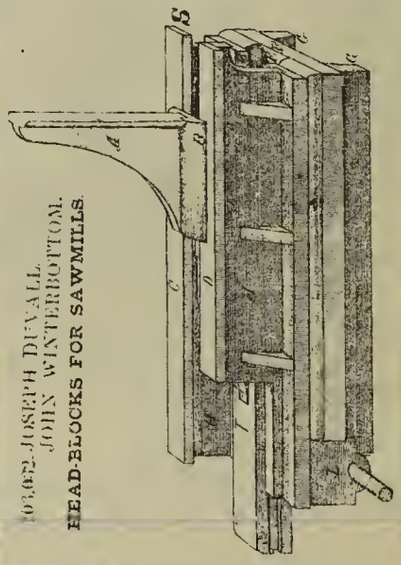
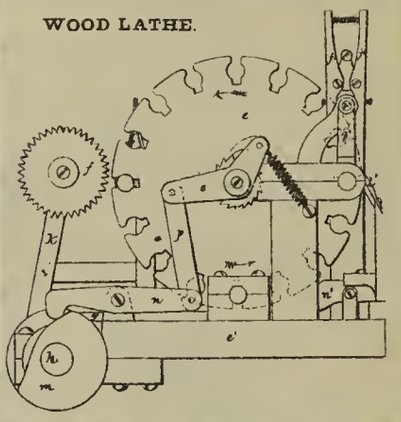
SADDLE-STIRRUP.



103,032. JOSEPH DUVALL.
JOHN WINTERBOTTOM.
HEAD-BLOCKS FOR SAWMILLS.

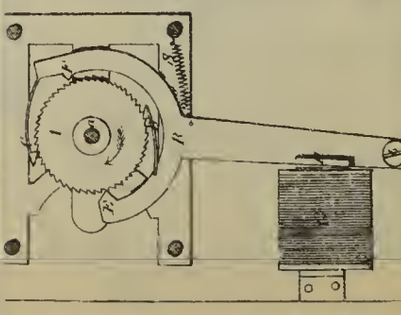


103,033. L. H. DWELLEY.
WOOD LATHE.

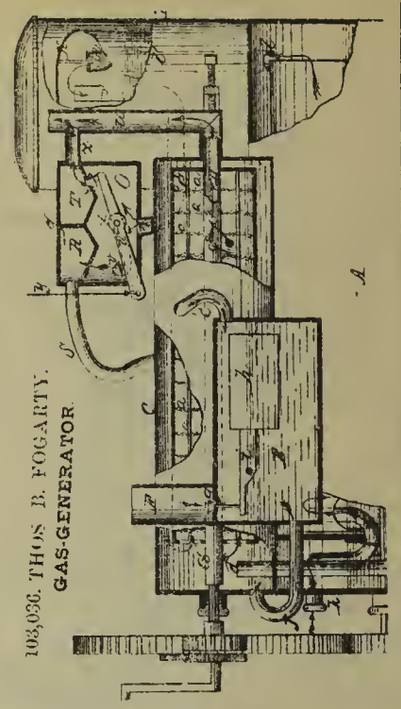


103,034, ITHAMAR F. EATON.
COMPOSITION TO PREVENT THE SLIPPING OF MACHINE-BELTS.

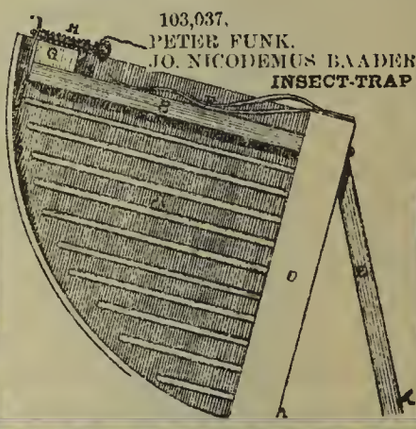
103,035, THOMAS A. EDISON.
ELECTRO-MOTOR ESCAPEMENTS



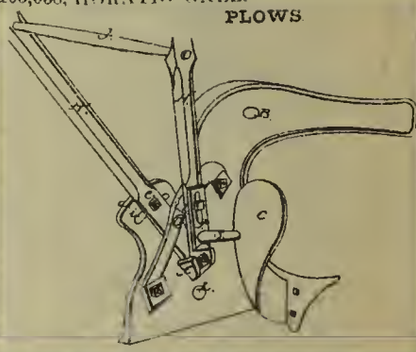
103,036. THOS. B. FOGARTY.
GAS-GENERATOR.



103,037.
PETER FUNK.
JO. NICODEMUS BAADER.
INSECT-TRAP

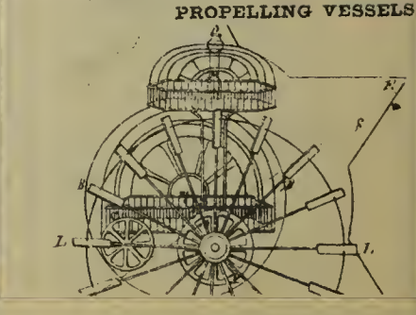


103,038, HORATIO GALE.
PLOWS.

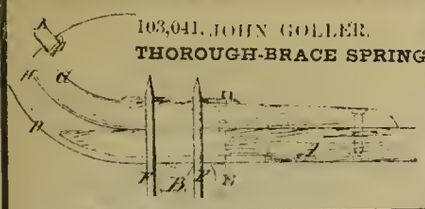


103,039, HENRY GERECKE.
FLUTING-TONGS.

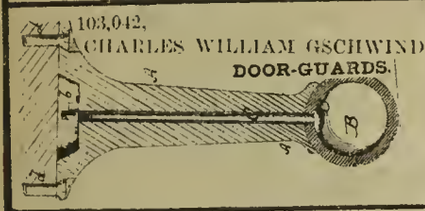
103,040, GHISI, GIUSEPPE
(JOSEPH GHISI.)
PROPELLING VESSELS

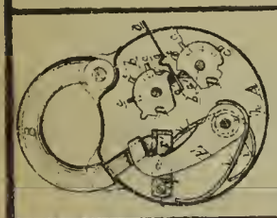


103,041, JOHN GOLLER.
THOROUGH-BRACE SPRING.



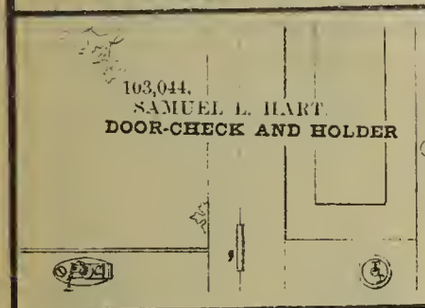
103,042,
CHARLES WILLIAM GSCHWIND.
DOOR-GUARDS.



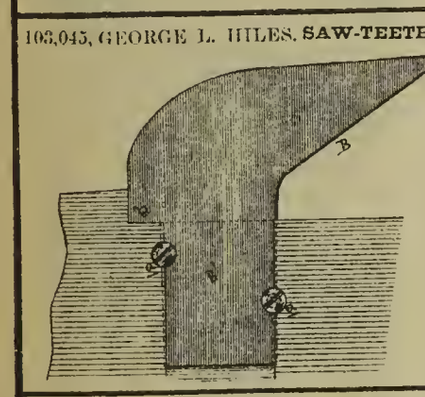


103,043,
E. P. HALL.
PADLOCKS.

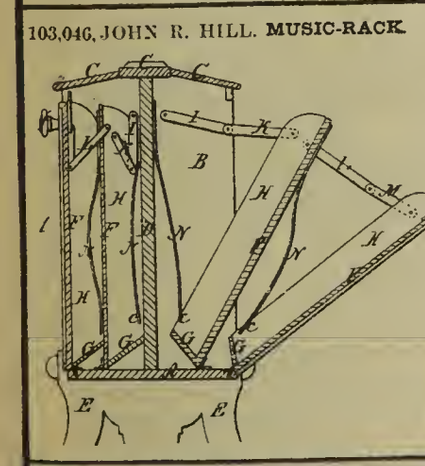
103,044,
SAMUEL L. HART.
DOOR-CHECK AND HOLDER



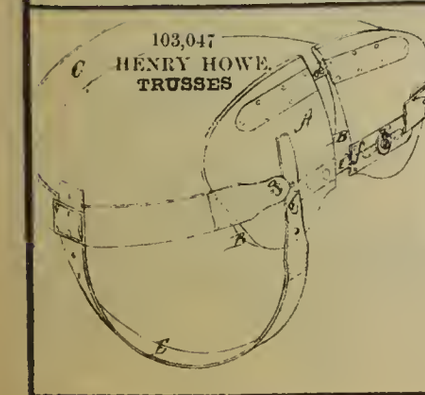
103,045, GEORGE L. HILES. SAW-TEETH.



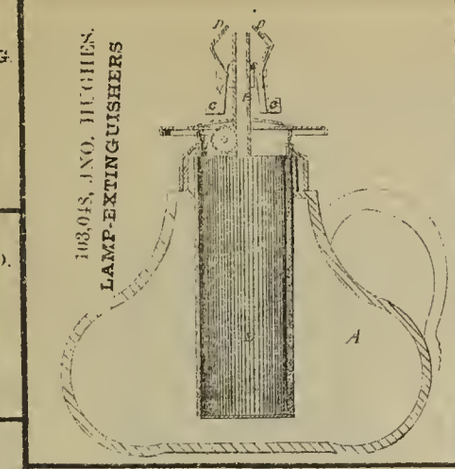
103,046, JOHN R. HILL. MUSIC-RACK.



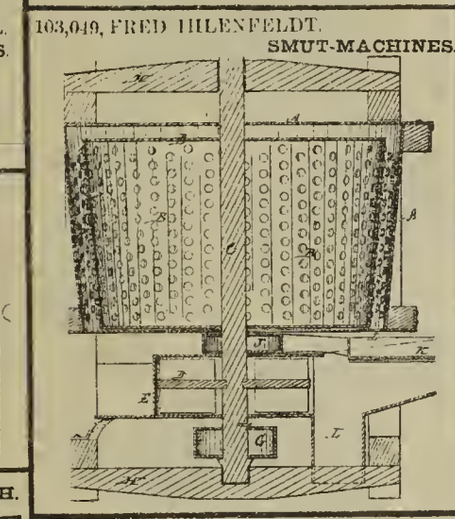
103,047
HENRY HOWE.
TRUSSES



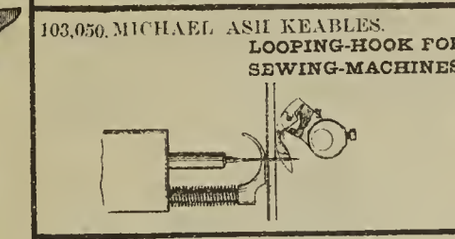
103,048, JNO. HUGHES.
LAMP-EXTINGUISHERS



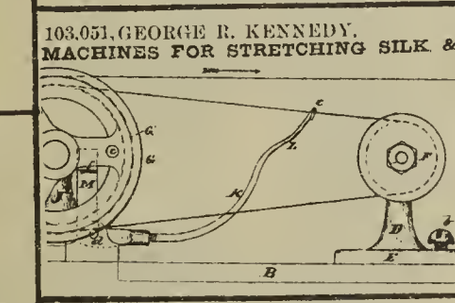
103,049, FRED HILENFELDT.
SMUT-MACHINES.



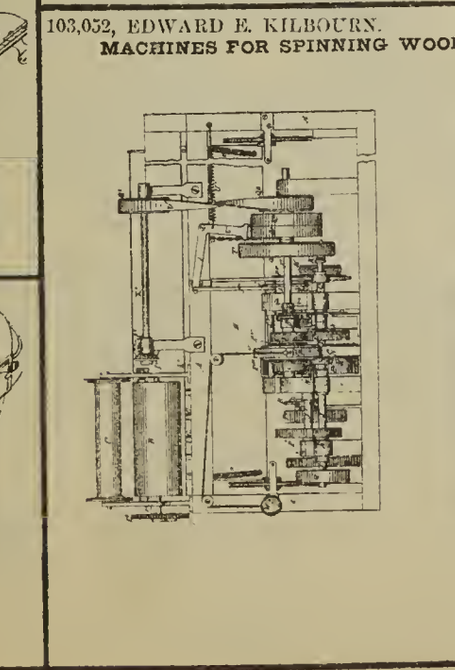
103,050, MICHAEL ASH KEABLES.
LOOPING-HOOK FOR
SEWING-MACHINES.



103,051, GEORGE R. KENNEDY.
MACHINES FOR STRETCHING SILK, &c.

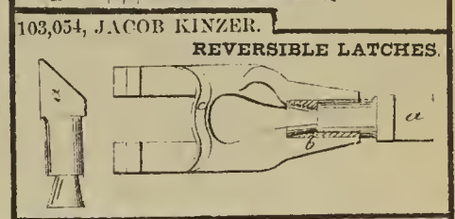


103,052, EDWARD E. KILBOURN.
MACHINES FOR SPINNING WOOL.

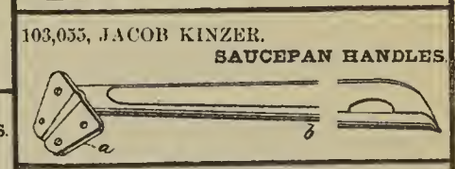


103,053, JACOB KINZER.
REVERSIBLE LATCHES.

103,054, JACOB KINZER.
REVERSIBLE LATCHES.

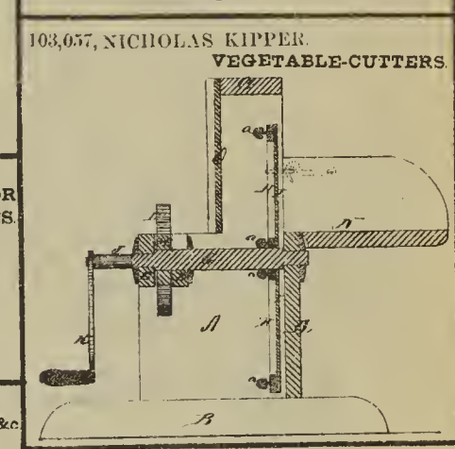


103,055, JACOB KINZER.
SAUCEPAN HANDLES.

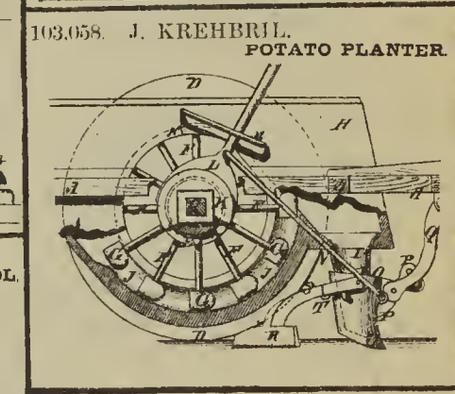


103,056, JACOB KINZER.
STAMPS FOR FRUIT-CANS.

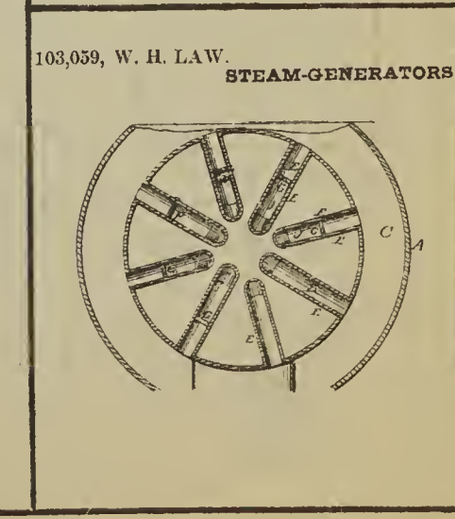
103,057, NICHOLAS KIPPER.
VEGETABLE-CUTTERS.



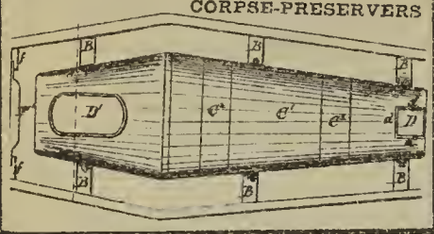
103,058, J. KREHBRIL.
POTATO PLANTER.



103,059, W. H. LAW.
STEAM-GENERATORS.

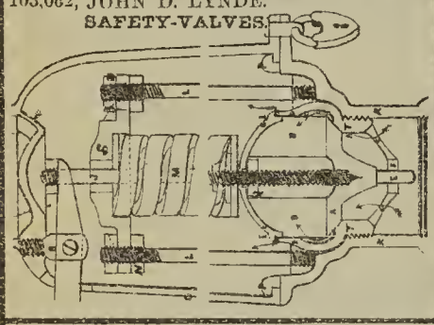


103,060, HENRY LEE.
CORPSE-PRESERVERS

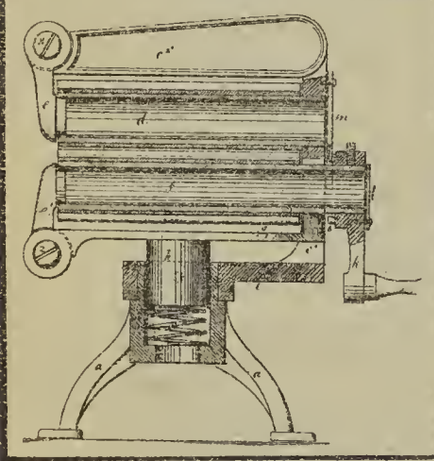


103,061, C. V. LITTLEPAGE.
ELECTRIC FOOT-WARMERS.

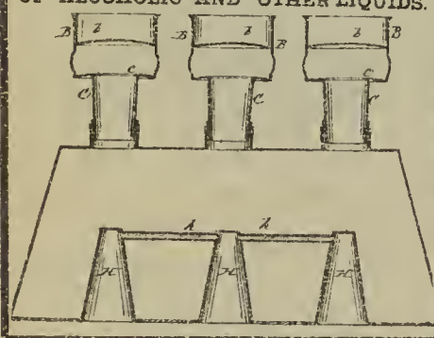
103,062, JOHN D. LYNDE.
SAFETY-VALVES.



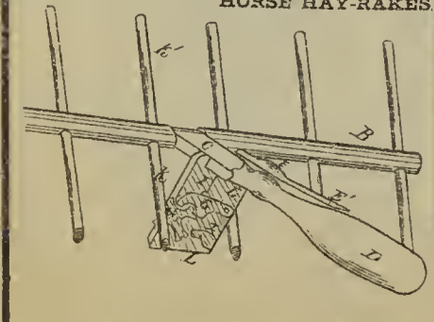
103,063, E. J. MANVILLE.
FLUTING-MACHINES.



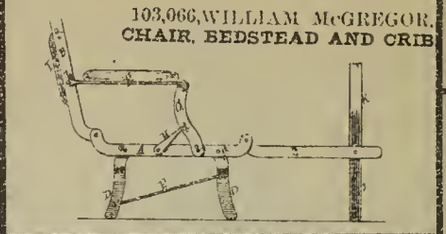
103,064, JAMES B. MASON. COLD-CAP STILL FOR THE DISTILLATION OF ALCOHOLIC AND OTHER LIQUIDS.



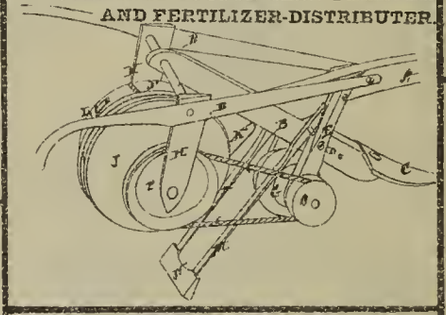
103,065, JOSEPH A. McGEE.
HORSE HAY-RAKES.

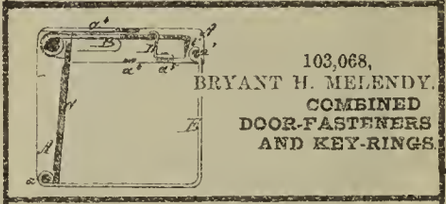


103,066, WILLIAM McGREGOR.
CHAIR, BEDSTEAD AND CRIB.



103,067, WILLIS M. McLENDON.
COMBINED COTTON-SEED PLANTER AND FERTILIZER-DISTRIBUTER.

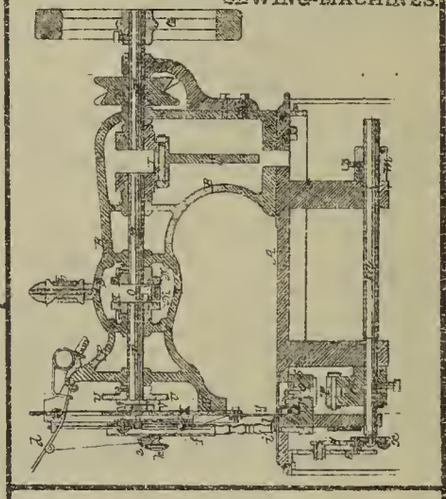




103,068,
BRYANT H. MELENDY.
COMBINED DOOR-FASTENERS AND KEY-RINGS.

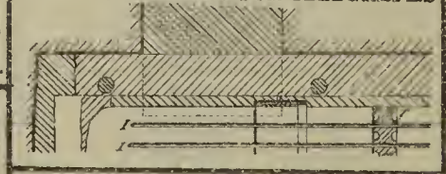
103,069, CHARLES H. MILLER.
CORD-TENSION DEVICE FOR WINDOW-SHADES.

103,070, ADAM MOLTZ.
SEWING-MACHINES.

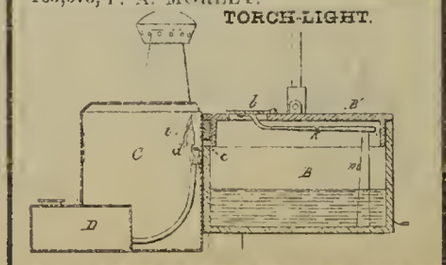


103,071, NATHANIEL MONROE.
PACKING FOR THE JOURNAL-BOXES OF RAILROAD CARS.

103,072, JAMES MONTGOMERY.
CONDUCTORS FOR TELEGRAPHS.

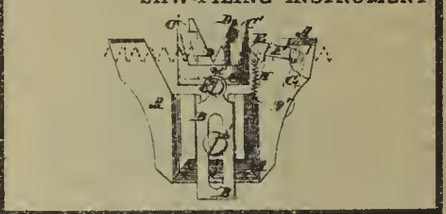


103,073, F. A. MORLEY.
TORCH-LIGHT.

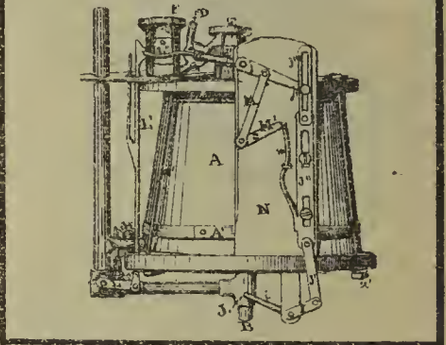


103,074, JOSEPH NAFTEL.
COMPOUND FOR MANUFACTURE OF VARNISH AND PAINTS.

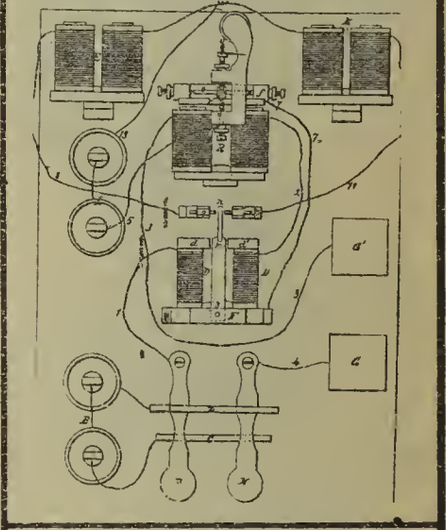
103,075, GEORGE E. NORRIS.
SAW-FILING INSTRUMENT.



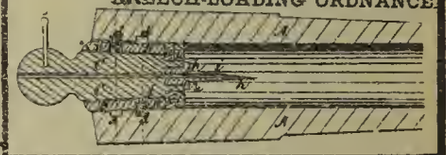
103,076. J. H. PATTEE AND G. H. NYE. STEAM VACUUM PUMP.



103,077, FRANK L. POPE.
ELECTRO-MAGNETIC MOVEMENT.

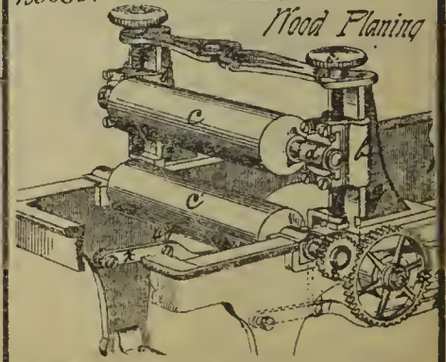


103,078. ABIATHER FALES POTTER.
BREECH-LOADING ORDNANCE.

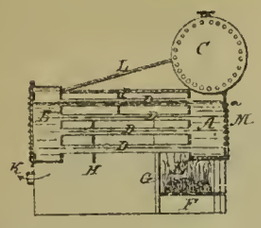


103,079, TIMOTHY J. POWERS.
CARTRIDGE-CASES.

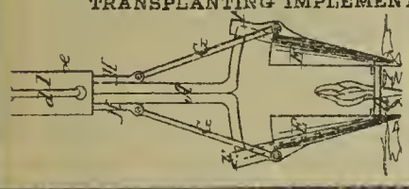
103080. JOHN RICHARDS.
Wood Planing



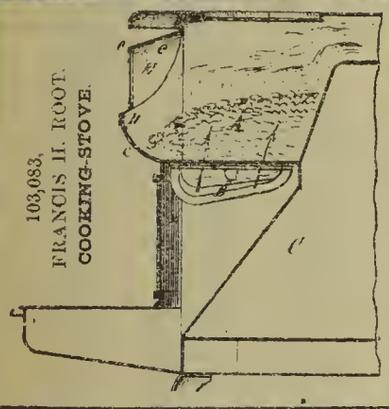
103,081. PETER RILEY.
STEAM-GENERATORS.



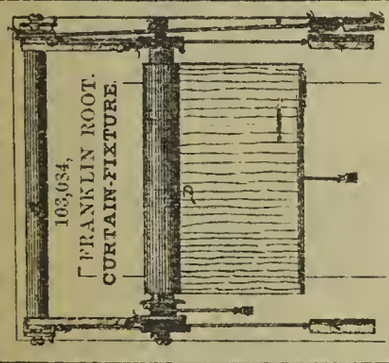
103,082, EDWIN B. ROBERTS.
WILLIAM GRAHAM.
TRANSPLANTING IMPLEMENT.



103,083,
FRANCIS H. ROOT.
COOKING-STOVE.

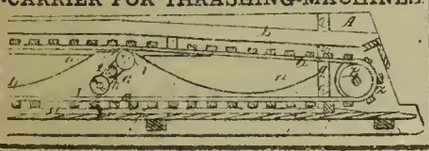


103,084,
FRANKLIN ROOT.
CURTAIN-FIXTURE.

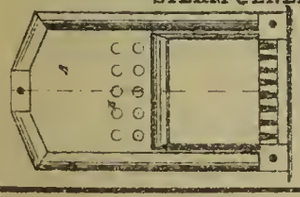


103,085, DANIEL RUGGLES. COMPOSTING MANURES AND FERTILIZERS.

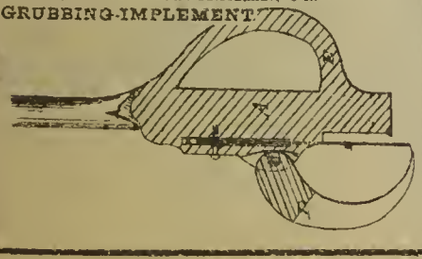
103,086, CLEMENT RUSSELL. STRAW
W. K. MILLER.
CARRIER FOR THRASHING-MACHINES.



103,087, GEO. O. SAMPSON.
STEAM-GENERATORS.

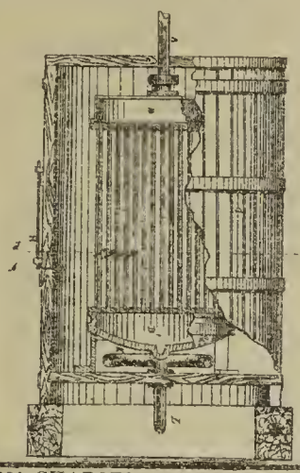


103,088, JOHN SATTAZAHN, JR.
GRUBBING-IMPLEMENT.



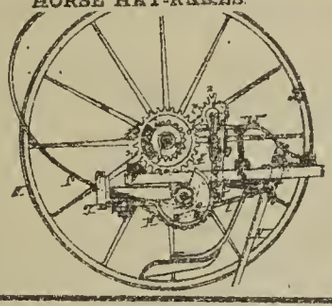
103,089, WILLIAM SCHRIER.
COMPOSITION METAL OR ALLOY

103,090. C. ROSSWOG.
MANUFACTURE OF SUGAR.



103,091, CHARLES A. SEELY.
MANUFACTURE OF EXTRACT OF HOPS.

103,092, JOHN S. SHRAWDER.
HORSE HAY-RAKES.



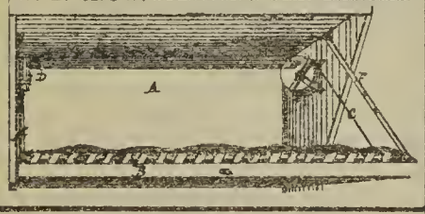
103,093, WM. E. SIMONDS STUDS FOR FASTENING NECK-TIES TO COLLARS.

103,094, FRED. J. SLADE.
MANUFACTURE OF STEEL

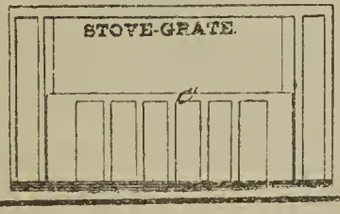
103,095 GEORGE HAND SMITH. CEMENT FOR PAVEMENTS, WALKS, ROOFS.

103,096, HAMILTON E. SMITH.
COLUMNAR MATTRESS.

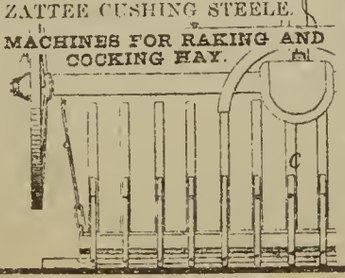
103,097,
W. B. SNOW. SLEEPING-CAR BERTHS.



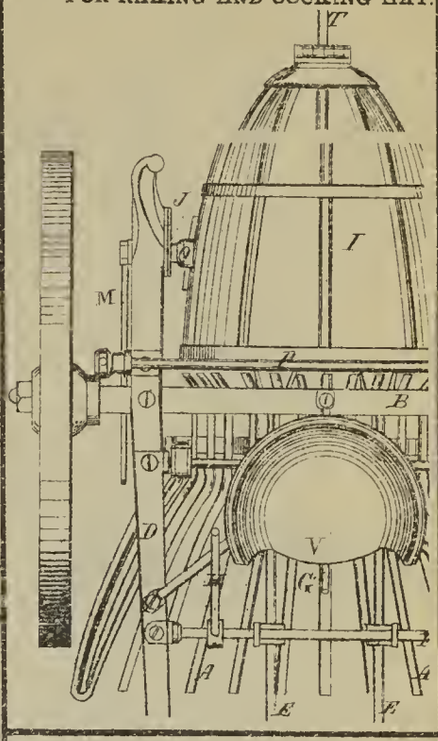
103,098, REUBEN SOLLIDAY.
STOVE-GRATE.



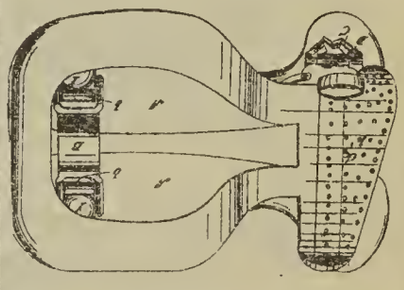
103,099. ZATTEE CUSHING STEELE.
MACHINES FOR RAKING AND COCKING HAY.



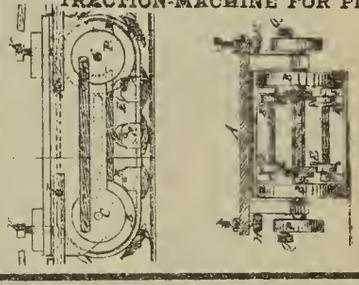
103,100, SCOTT STEWART. MACHINES FOR RAKING AND COCKING HAY.



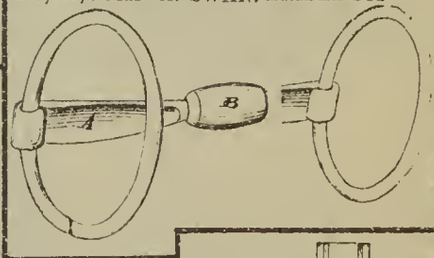
103,101, JACOB STRAUS.
SIDE-SADDLE TREES.



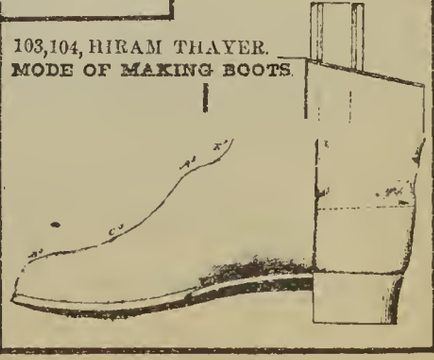
103,102, STEPHEN S. STUNTZ.
TRACTION-MACHINE FOR PLOWS.



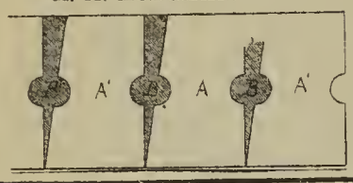
103,103, JOHN A. SWAN. BRIDLE-BIT.



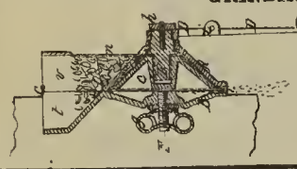
103,104, HIRAM THAYER.
MODE OF MAKING BOOTS.



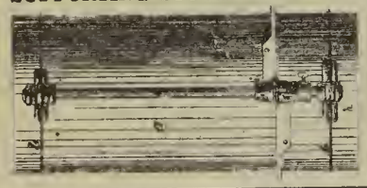
103,105. A. VAN CAMP. M. M. HODGMAN. **PAVEMENTS.**



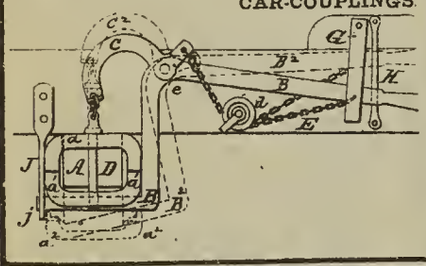
103,106, A. J. VANDEGRIFT. GEO. W. M. VANDEGRIFT. **GRINDING-MILLS.**



103,107, HORACE VANSANDS. **BRACKET FOR SUPPORTING STOVE-PIPE SHELVES.**

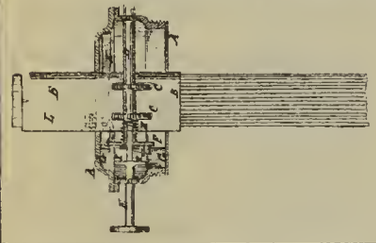


103,108, JOSEPH VAN STEENBERG. **CAR-COUPLINGS.**

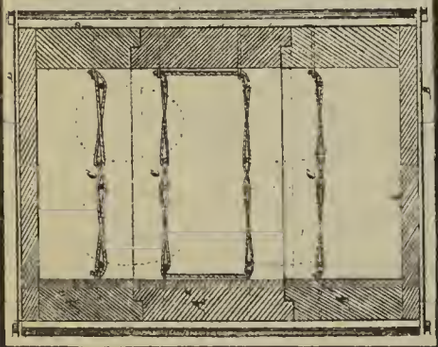


103,109, JAMES WEBSTER. **MANUFACTURE AND PURIFYING OF IRON.**

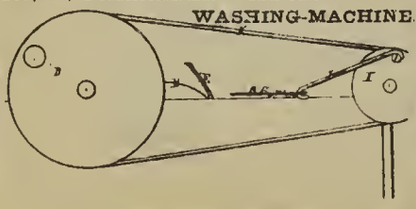
103,110, WM. H. WEEKS. **AUTOMATIC LIGHTING-WICKS FOR LAMPS.**



103,111, GEO. A. WELLS. **BOXES FOR TRANSPORTING EGGS.**



103,112, PHILANDER WILBOR. **WASHING-MACHINE.**

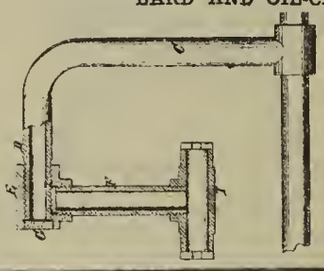


103,113, PHINEAS M. WITHINGTON. **KNIFE-SHARPENERS.**

103,114, MILEDEN WONSER. **CARRIAGE-WHEEL.**

103,115, JAMES WOODRUFF. FREDK. BOYD. **PREPARATION OF FIBROUS MATERIAL.**

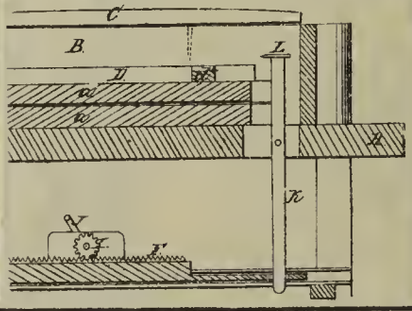
103,116, CHRISTOPHER J. YERGASON. **APPARATUS FOR STEAMING LARD AND OIL-CASKS.**



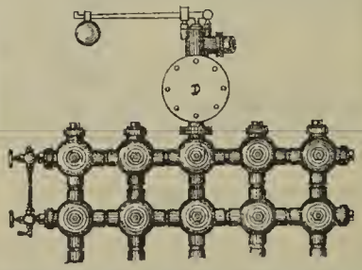
103,117, JOB ABBOTT. **ALARM-TELEGRAPH SIGNAL-BOXES.**

103,118, JOHN J. ADAIR. **WHIFFLETREE.**

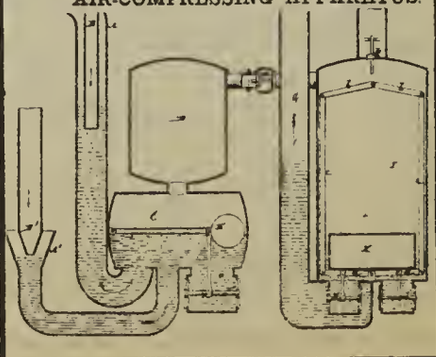
103,119, JNO. WESTLEY ALESWORTH. **MACHINES FOR JOINTING STAVES.**



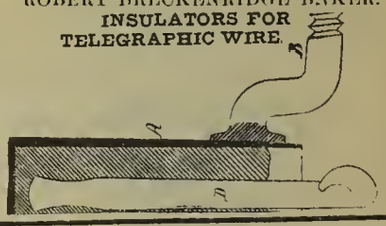
103,120, D. AMSDELL. **STEAM-GENERATORS.**



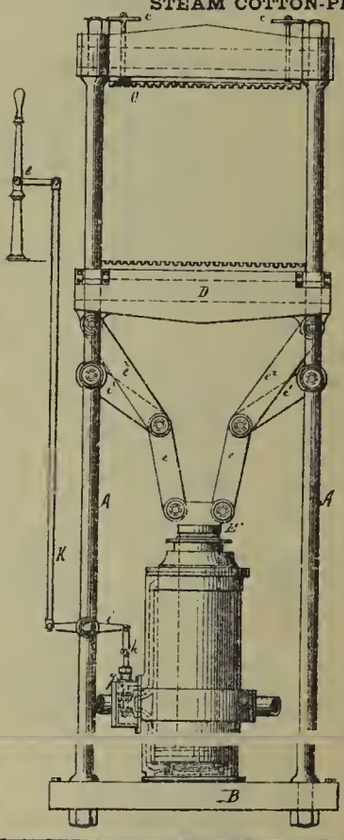
103,121, B. T. BABBITT. **AIR-COMPRESSING APPARATUS.**

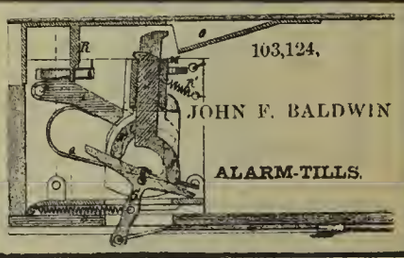


103,122, ROBERT BRECKENRIDGE BAKER. **INSULATORS FOR TELEGRAPHIC WIRE.**

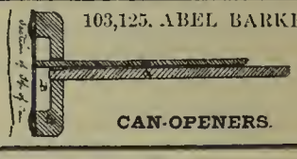


103,123. AUGUSTINE BALDWIN. **STEAM COTTON-PRESS.**





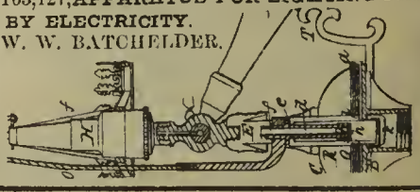
103,124, JOHN F. BALDWIN. **ALARM-TILLS.**



103,125. ABEL BARKER. **CAN-OPENERS.**

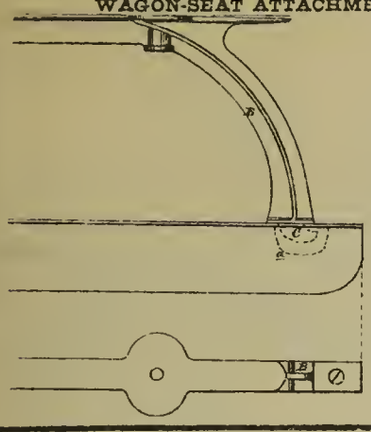
103,126. C. BARKER. **DOOR FOR RAILWAY BOX CARS.**

103,127, **APPARATUS FOR LIGHTING GAS BY ELECTRICITY.** W. W. BATCHELDER.

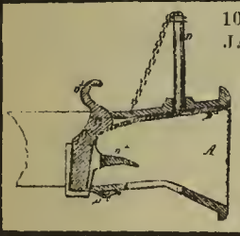


103,128. ALMA BEDFORD. **HARNESS-BUCKLE.**

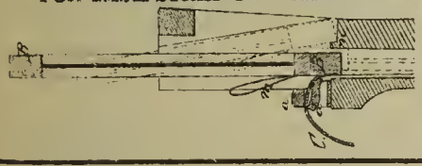
103,129, WILLIAM BEERS.
WAGON-SEAT ATTACHMENT.



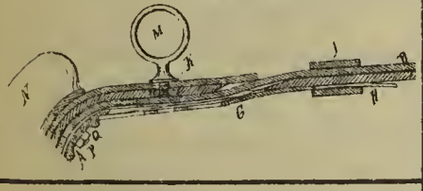
103,130,
JAMES BLAKENEY.
RAILWAY-CAR COUPLING.



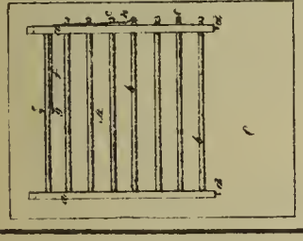
103,131, JOHN H. BLOODGOOD. **ROLLER FOR SASH-STRAP FOR CARRIAGES.**



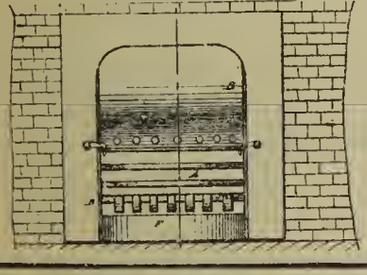
103,132, VALENTIN BORST.
HARNESS SADDLES.



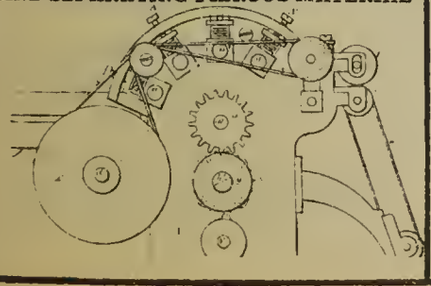
103,133, HARVEY BOSWORTH.
CLOTHES-DRIER.



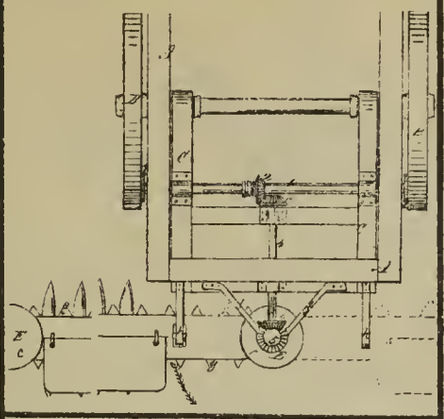
103,134, ADOLPH BRASE.
LEMUEL SALLADEY.
GRATE FOR FIRE-PLACES.



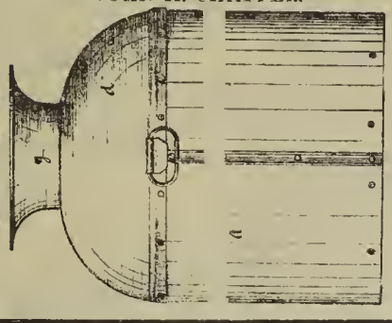
103,135, E. BRASIER.
MACHINE FOR BREAKING, SCUTCHING, AND SEPARATING FIBROUS MATERIAL.



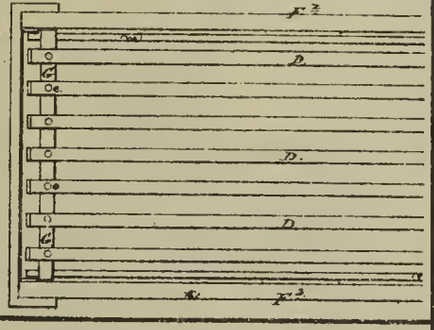
103,136, CLARK H. CHARLESWORTH.
JOSEPH H. SHORT.
HARVESTERS.



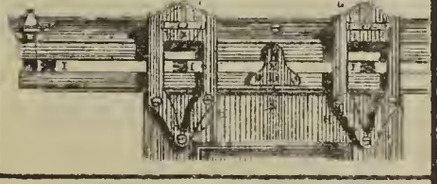
103,137, CHAS. L. CAMP. **MILK-CANS.**
JOHN H. CHAPPEL.



103,138, GEO. O. CAPEN.
SPRING BED-BOTTOM.



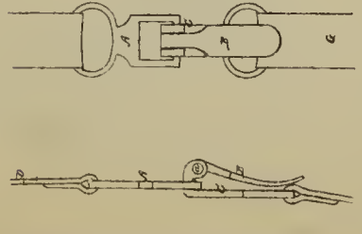
103,139, JACOB CAPRON.
SLIDING-DOOR APPARATUS.



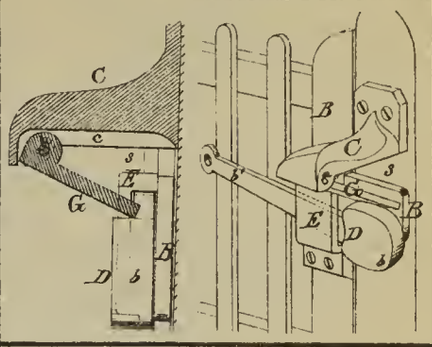
103,140,
JOHN CLARK.
PISTON-PACKING.

103,141, RICHARD T. CLARKE.
PROCESS OF PURIFYING LINSEED-OIL.

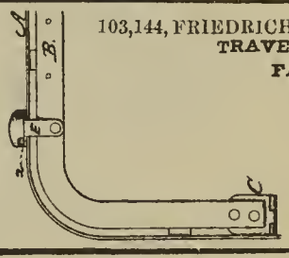
103,142, ROBERT CLINGEN.
FLAP-FASTENER FOR THE DASHER OF CARRIAGES.



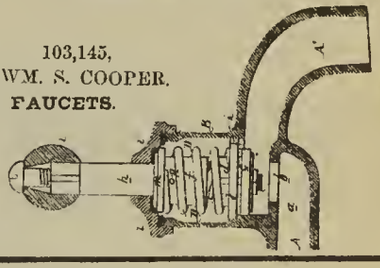
103,143, HENRY CLYMO.
LATCHES FOR GATES.



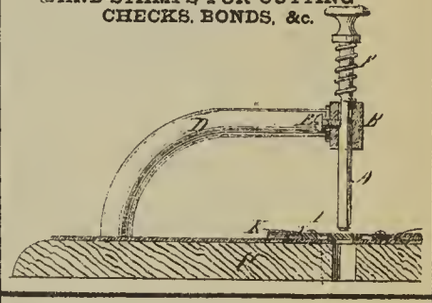
103,144, FRIEDRICH COELLER.
TRAVELING-BAG FASTENER.



103,145,
WM. S. COOPER.
FAUCETS.

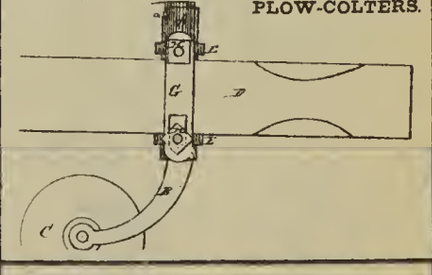


103,146, JOHN F. CORY.
JACOB H. BROWN.
HAND-STAMPS FOR CUTTING CHECKS, BONDS, &c.

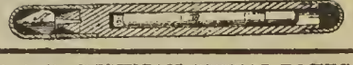


103,147, JOHN CROWLEY.
BEATERS FOR THRASHING-MACHINES.

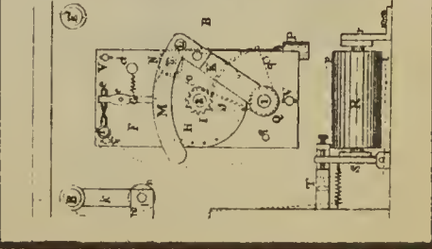
103,148, GEO. CURKENDALL.
PLOW-COLTERS.



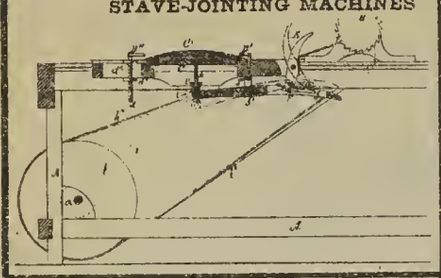
103,149, H. T. CUSHMAN **ERASERS.**



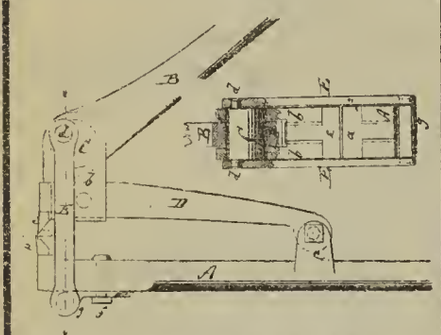
103,150, S. D. CUSHMAN. **SIGNAL-BOXES FOR FIRE-ALARM TELEGRAPHS.**



103,151, AMOS CUTTER.
STAVE-JOINTING MACHINES

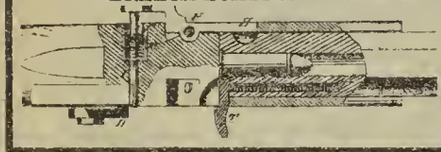


103,152, LEVI DANIELS.
BOLT-CUTTING DEVICE.

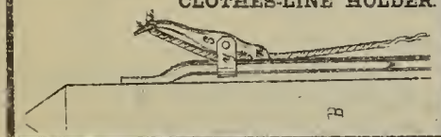


103,153, A. C. L. DAVIS.
HAND CORN-PLANTERS.

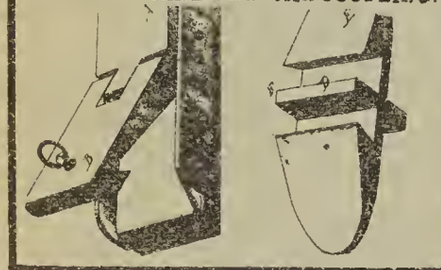
103,154, JARVIS DAVIS.
BREECH-LOADING FIRE-ARMS.



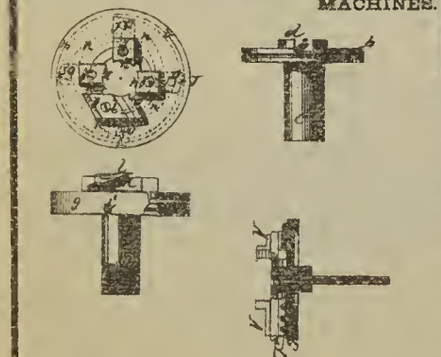
103,155, JOSEPH DAVIS.
CLOTHES-LINE HOLDER.



103,156, THOMAS J. DELANY
RAILWAY CAR-COUPLING.



103,157, JOHN DEMING.
SPOKE-TENONING AND HUB-BORING MACHINES.



103,158, LOYAL M. DODDRIDGE.
MILK-PAILS WITH STRAINERS ATTACHED.

103,159, WILLIAM C. DODGE.
GUIDE FOR SEWING-MACHINE.

103,160, WALTER DUNKERLY.
FORGE-BONNET.

103,161, GEO. B. DURKEE.
AXLE-BOXES FOR CARRIAGES.

103,162, WM. T. DUVALL.
WATER-WHEEL

103,163, GEORGE W. ELDRIDGE.
FIRE-KINDLING.

103,164, THOMAS RICHARD EVANS.
SHOES.

103,165, FREDERIC G. FORD.
FURNITURE-CASTERS.

103,166, THOMAS A. FRAKES. BEE-HIVES

103,167, GEORGE PLINY FULLER.
CURTAIN-FIXTURE.

103,168, JEFFERSON L. FULTON.
JULIUS BRACE.
BITUMINOUS ROCK PAVEMENT.

103,169, JEFFERSON L. FULTON.
JULIUS BRACE.
MATERIAL FOR ROOFING AND PAVING.

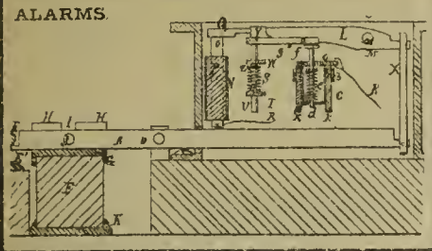
103,170, GREGORY GERDOM.
LUBRICATOR.

103,171, CHAS. GERNES.
JOHN H. GRUENHAGEN.
STUMP-EXTRACTOR.

103,172, WM. F. GRASSLER.
RAILWAY CAR-COUPLING.

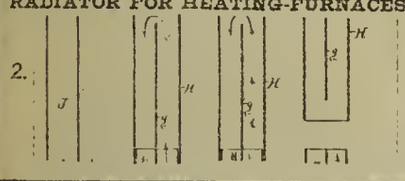
103,173, J. M. HACKNEY. FILTERS.

103,174. T. S. HALL.
ELECTRO MAGNETIC RAILROAD ALARMS.



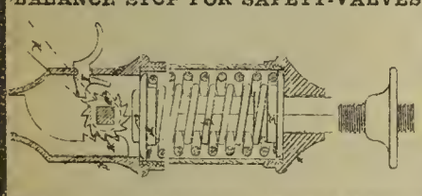
103,175, RICHARD B. HAMEL.
JAMES B. HOLDEN.
MECHANICAL MOVEMENT.

103,176, CHARLES HARKINSON.
RADIATOR FOR HEATING-FURNACES.

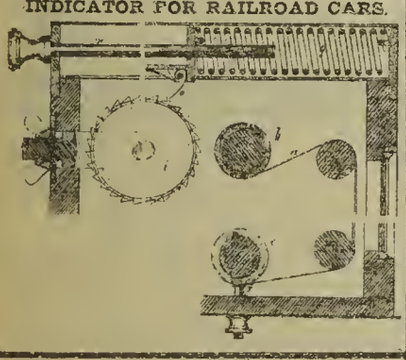


103,177. SUSPENDED.

103,178, BAYLIES HATHAWAY. SPRING BALANCE STOP FOR SAFETY-VALVES

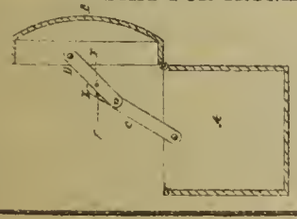


103,179, W. HEBDON. STATION-INDICATOR FOR RAILROAD CARS.

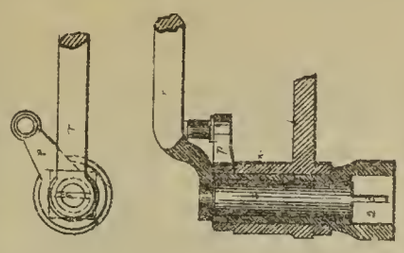


103,180, CHARLES W. HERMANCE.
CULINARY VESSEL.

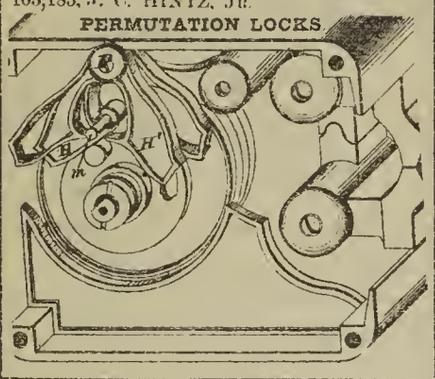
103,181, LOUIS HILLEBRAND.
STAY FOR TRUNKS.



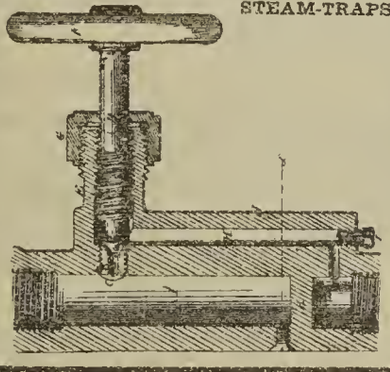
103,182, BINDLOSS H. HILLIAR.
ICE-CREAM FREEZER.



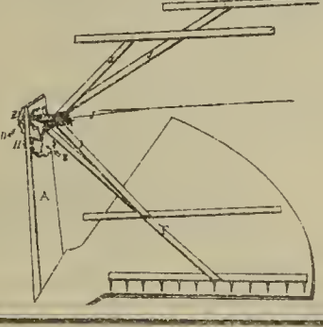
103,183, J. C. HINTZ, Jr.
PERMUTATION LOCKS.



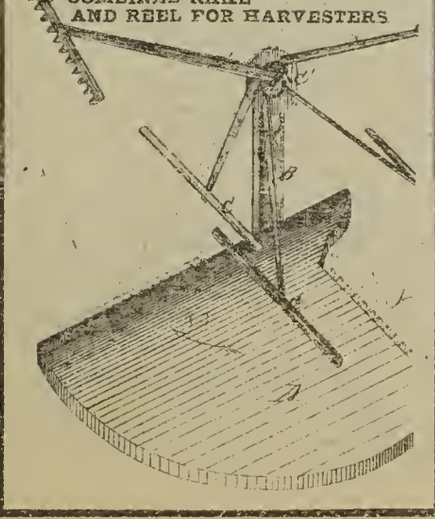
103,184, J. WILSON HODGES.
STEAM-TRAPS.



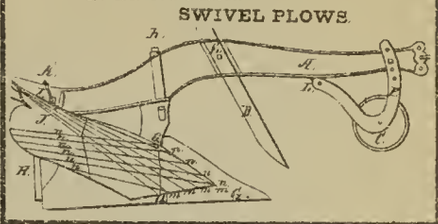
103,185, PLINY F. HODGES. COMBINED RAKE AND REEL FOR HARVESTERS.



103,186, P. F. HODGES.
COMBINED RAKE AND REEL FOR HARVESTERS.



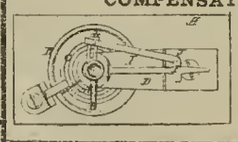
103,187, FREDERICK HOLBROOK.
JAMES A. HOWE.
JOEL NOURSE.
SWIVEL PLOWS.



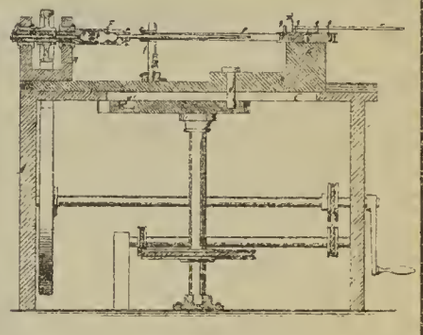
103,188, JOHN W. HOLLINGSWORTH.
METAL-INJECTORS.

103,189, JOHN W. HOLLINGSWORTH.
ARTIFICIAL TEETH.

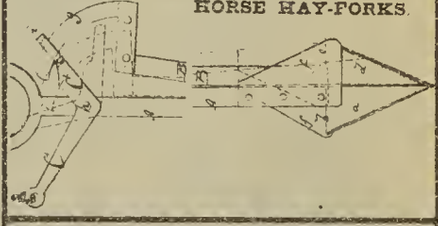
103,190, WILLIAM H. HORTON.
COMPENSATING REGULATOR FOR WATCHES.



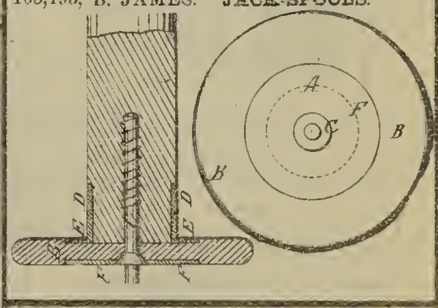
103,191, PH. HUFELAND.
SAND-PAPERING MACHINES.



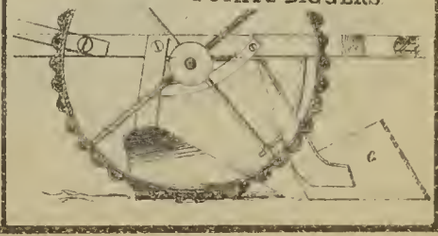
103,192, JOHN W. HULL.
HORSE HAY-FORKS.



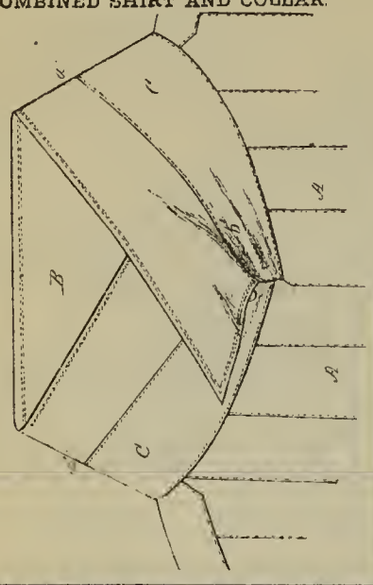
103,193, B. JAMES. JACK-SPOOLS.



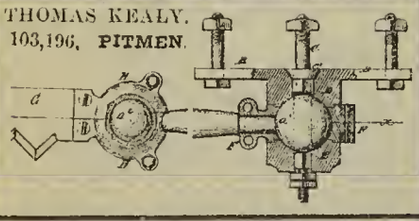
103,194, MOSES JOHNSON.
POTATO-DIGGERS.



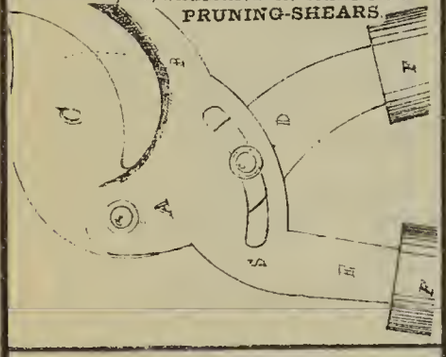
103,195, JAS. A. JONES.
COMBINED SHIRT AND COLLAR.



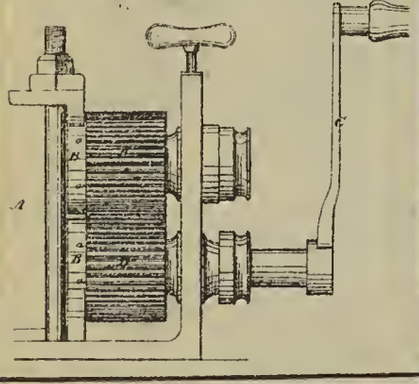
THOMAS KEALY.
103,196, PITMEN.



103,197, CLEMENT A. KELLOGG.
PRUNING-SHEARS.

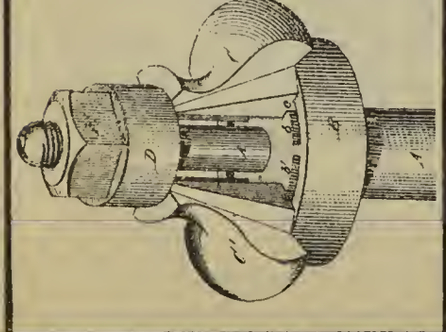


103,198, JOHN L. KENDALL.
R. H. TRESTED.
FABRIC FOR CARPET-LINING, &c



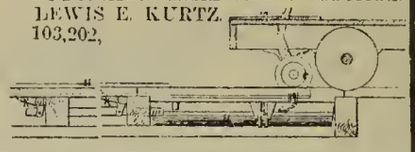
103,199, SAMUEL KINGAN
MANUFACTURE OF ROOFING-FELT.

103,200, JOHN KUEHNLE. CUTTER-HEAD
FOR PLANING-MACHINES.

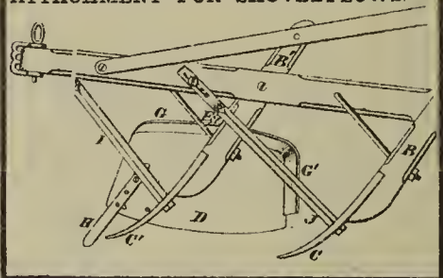


103,201. W. J. KUHNS.
NICKEL PLATING.

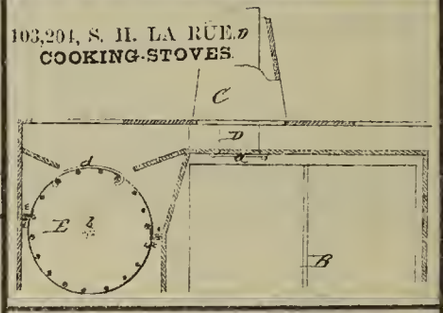
AUTOMATIC RAILWAY-SWITCHES.
LEWIS E. KURTZ.
103,202,



103,203, EDWARD LANNAY.
CLOD-FENDERS AND PULVERIZING
ATTACHMENT FOR SHOVELPLOWS.

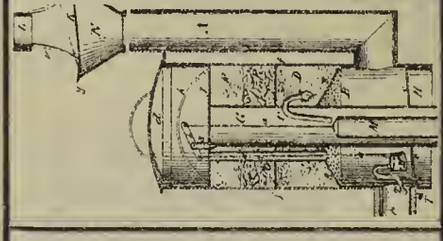


103,204, S. H. LA RUE.
COOKING-STOVES.

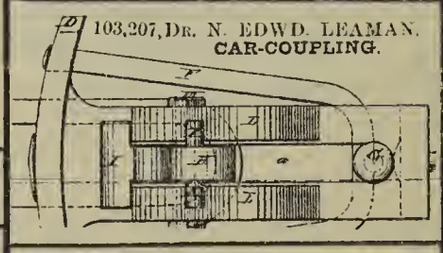


103,205, ALBERT H. LAW.
ANCHORS.

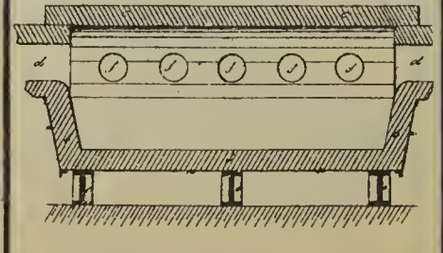
103,206, DR. N. EDWD. LEAMAN.
FILTERS FOR CISTERNS.



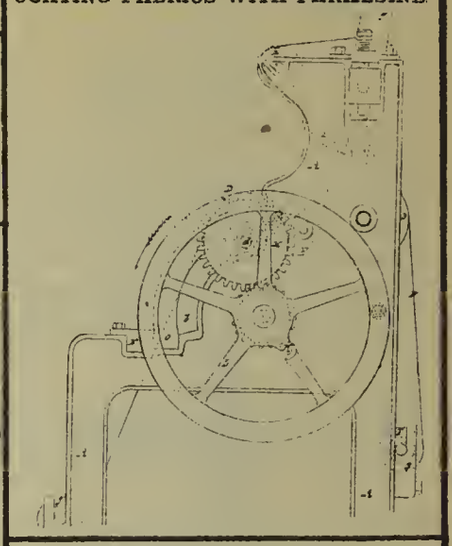
103,207, DR. N. EDWD. LEAMAN.
CAR-COUPLING.



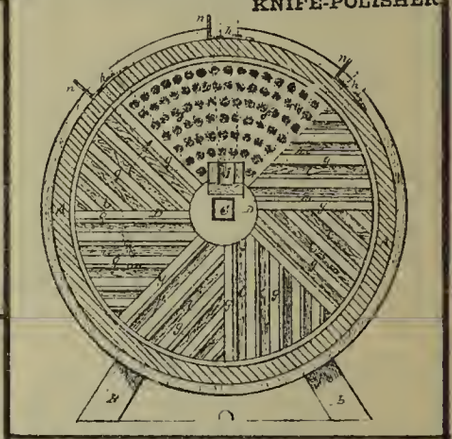
103,208, GEORG LEUFFGEN.
TANK-FURNACE FOR MAKING GLASS.



103,209, JNO. LEWTHWAITE.
COATING FABRICS WITH PARKESINE.

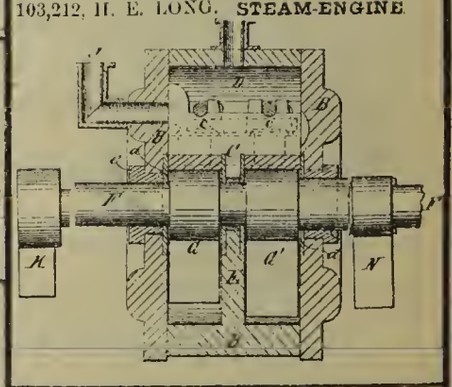


103,210, CHAS. H. LITHGOW.
KNIFE-POLISHER.



103,211, JAMES M. LOGAN.
MILL-SPINDLE DRIVERS.

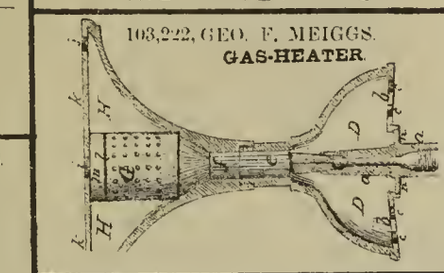
103,212, H. E. LONG. STEAM-ENGINE.



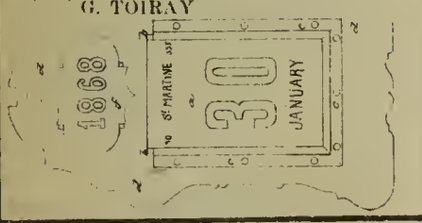
103,213, WM. D. LUDLOW.
LAMP-BURNERS

103,214, ALFRED MARR.
VARNISH FOR SURFACING RAILWAY HEADS, DRAWING AND SPINNING-FRAMES.

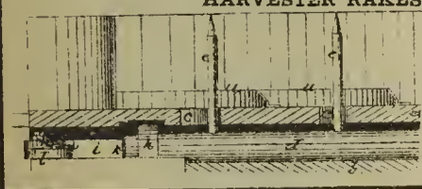
103,215, E. G. MATTHEWS.
CUTTER-STOCK FOR SWIVEL-PLOWS.



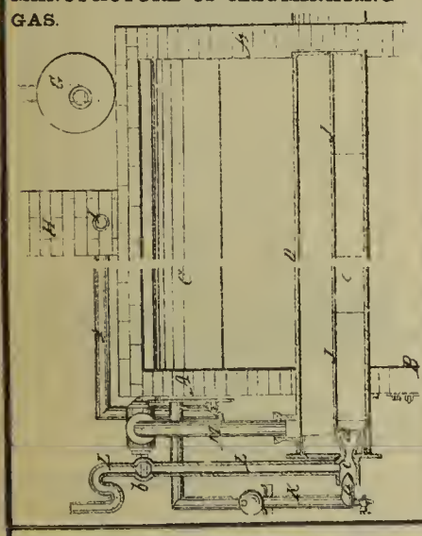
103,216, YVE A. MAURIN, G. TOIRAY. CALENDARS.



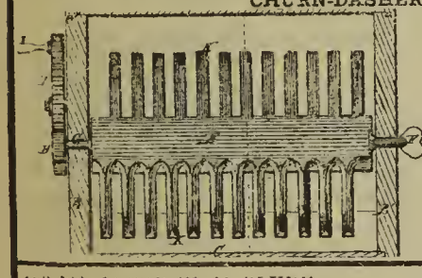
103,217, EDWIN R. McCALL.
HARVESTER RAKES.



103,218. E. P. McCARTHY.
MANUFACTURE OF ILLUMINATING GAS.

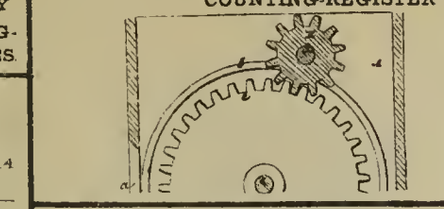


103,219, THOS. B. McCONAUGHEY, JAMES ADAMS.
CHURN-DASHERS.



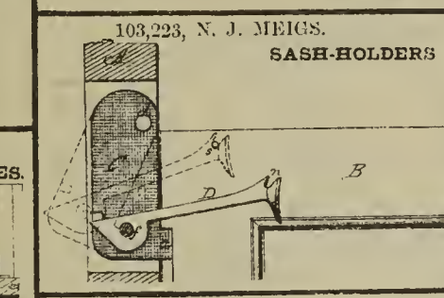
103,220, JACOB W. McCLURE.
NUT-LOCKS

103,221, WM. H. McNARY.
COUNTING-REGISTER

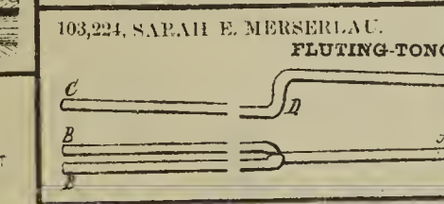


103,222, GEO. F. MEIGGS.
GAS-HEATER.

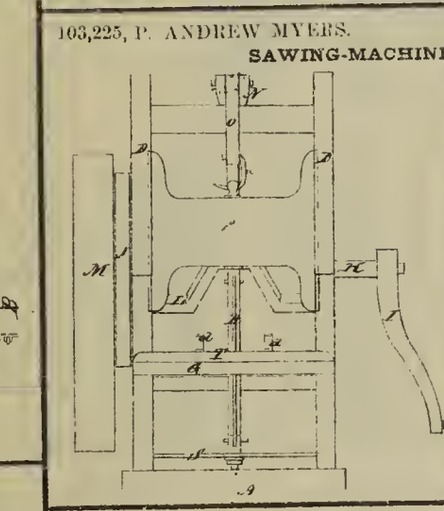
103,223, N. J. MEIGS.
SASH-HOLDERS



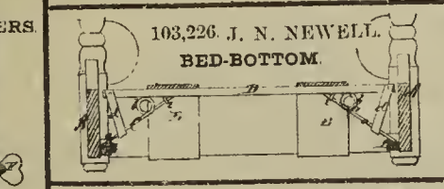
103,224, SARAH E. MERSERLAU.
FLUTING-TONGS



103,225, P. ANDREW MYERS.
SAWING-MACHINES.

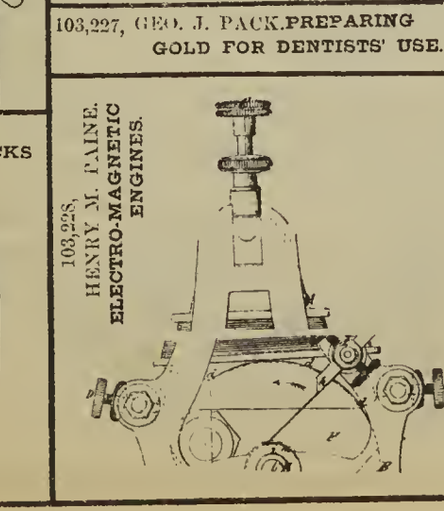


103,226. J. N. NEWELL.
BED-BOTTOM.

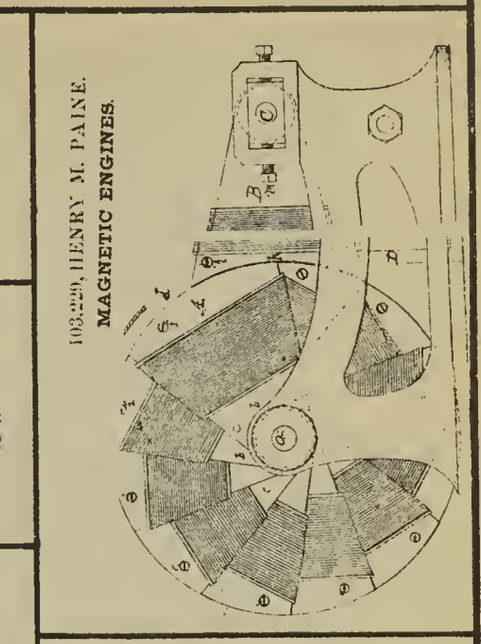


103,227, GEO. J. PACK. PREPARING GOLD FOR DENTISTS' USE.

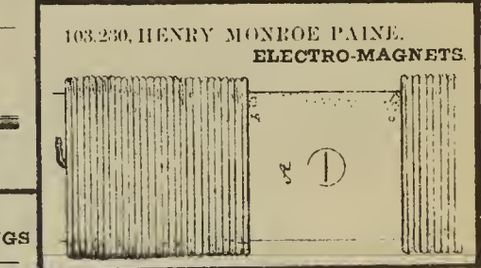
103,228, HENRY M. PAINE.
ELECTRO-MAGNETIC ENGINES.



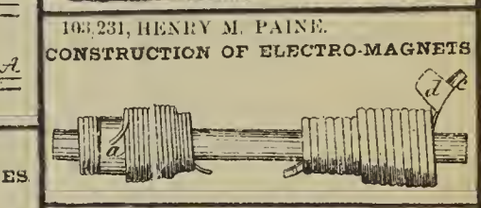
103,229, HENRY M. PAINE.
MAGNETIC ENGINES.



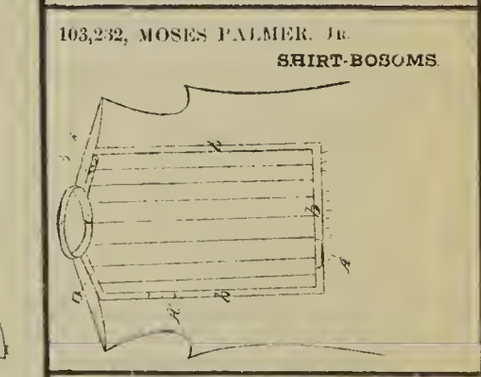
103,230, HENRY MONROE PAINE.
ELECTRO-MAGNETS.



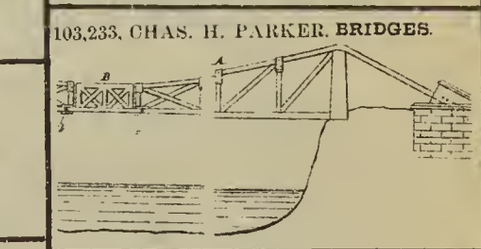
103,231, HENRY M. PAINE.
CONSTRUCTION OF ELECTRO-MAGNETS



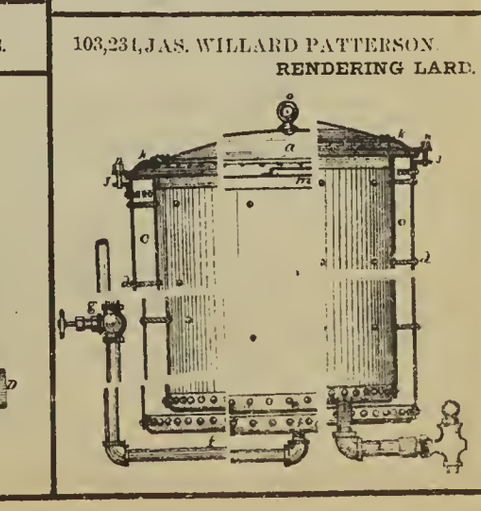
103,232, MOSES PALMER, Jr.
SHIRT-BOSOMS.



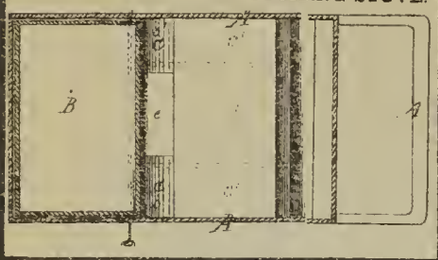
103,233, CHAS. H. PARKER. BRIDGES.



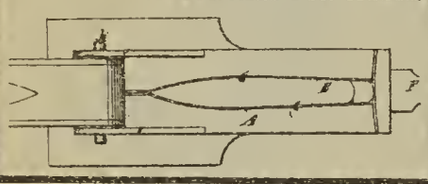
103,234, JAS. WILLARD PATTERSON.
RENDERING LARD.



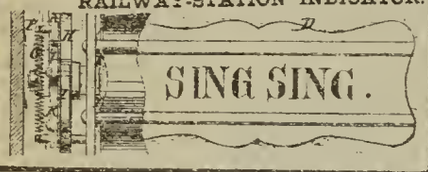
103,235, ALEXANDER G. PATTON.
COOKING-STOVE.



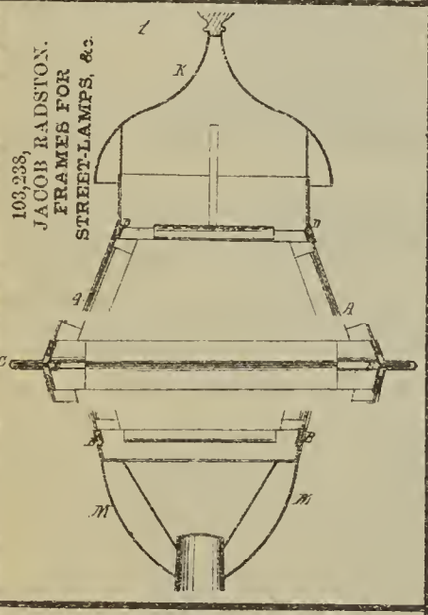
103,236, ADOLPH PEARL.
MANUFACTURE OF BUNCHES FOR CIGARS.



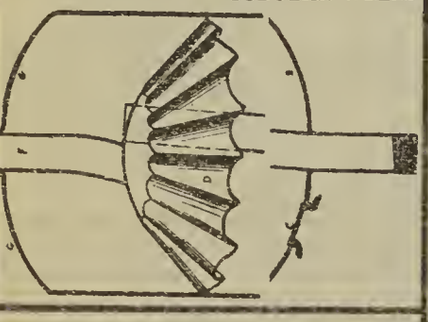
103,237, JULIUS P. PFAU.
RAILWAY-STATION INDICATOR.



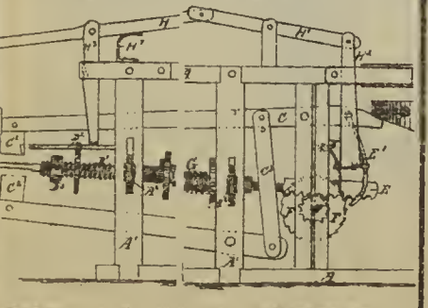
103,238, JACOB RADSTON.
FRAMES FOR STREET-LAMPS, &c.



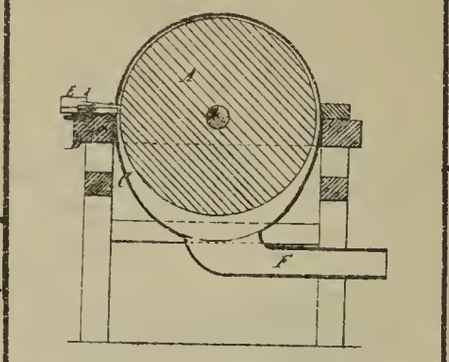
103,239. JOHN EDWARD ROBINSON.
SAND AND AIR-CHAMBER FOR TUBULAR WELLS



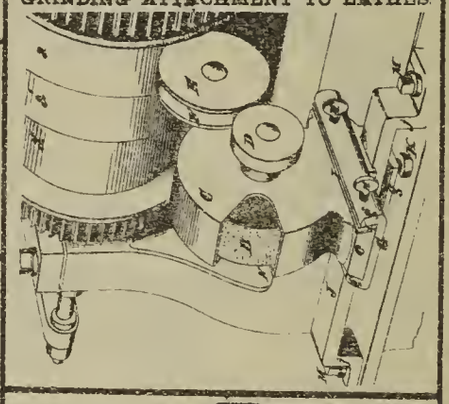
103,240, EDWARD B. ROLLINS.
MACHINE FOR MAKING FILES.



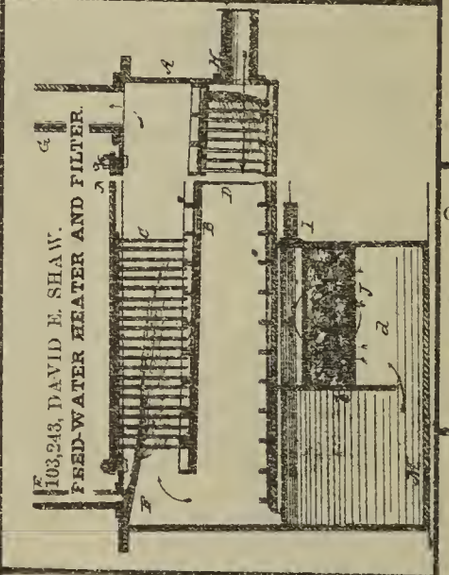
103,241, PHILIP SCHRAG, PH. HUFELAND. MACHINES FOR CUTTING OFF LEAD-PENCILS



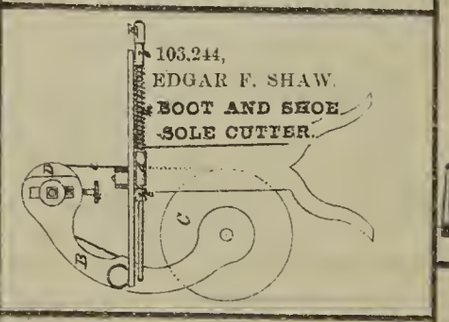
103,242, JAMES SHAUGHNESSY. TOOL-GRINDING ATTACHMENT TO LATHES.



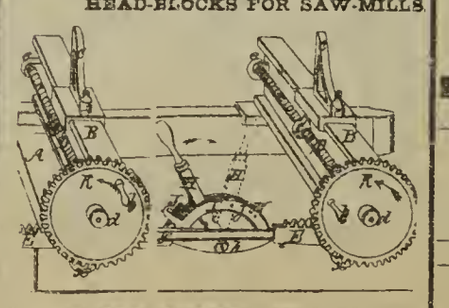
103,243, DAVID E. SHAW.
FEED-WATER HEATER AND FILTER.



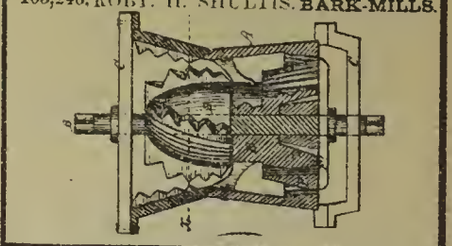
103,244,
EDGAR F. SHAW.
BOOT AND SHOE SOLE CUTTER.



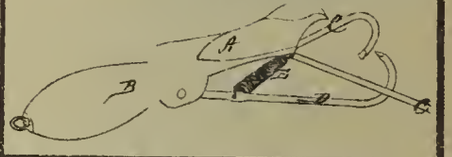
103,245, ANDREW SHEARON.
HEAD-BLOCKS FOR SAW-MILLS.



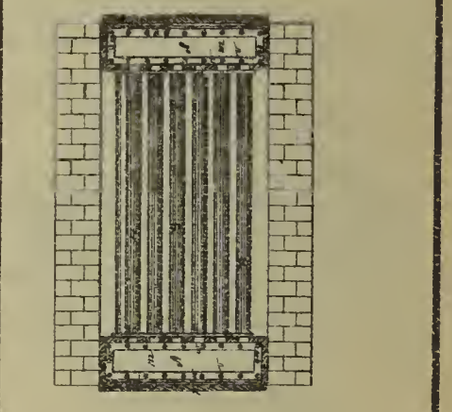
103,246, ROBT. H. SHULTIS. BARK-MILLS.



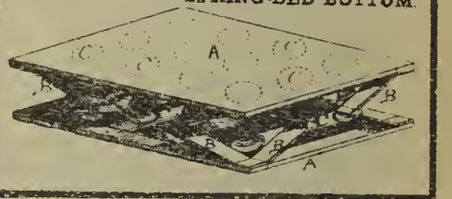
103,247, THOMAS SIMPSON.
LID AND PLATE-LIFTER AND POT-HOOK



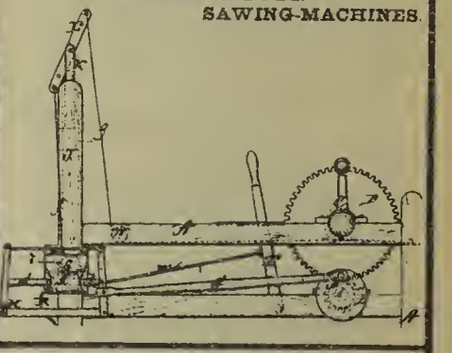
103,248, WILLIAM P. SKIFFINGTON.
STEAM-GENERATORS.



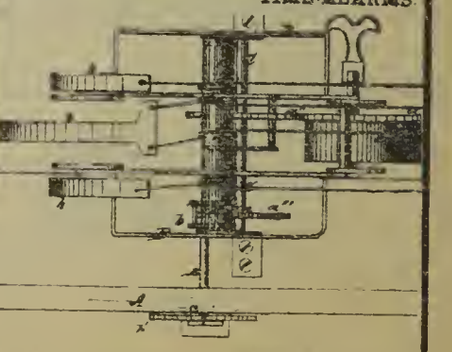
103,249,
CHARLES I. SKOW.
SPRING-BED BOTTOM.



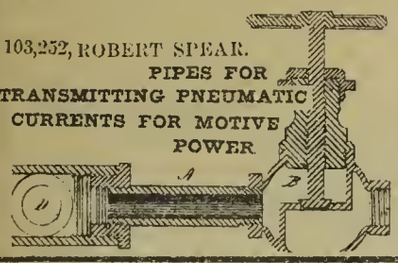
103,250, OLIVER C. SMITH.
THEODORE S. DOLL.
SAWING-MACHINES.



103,251, THOMAS H. SMITH
TIME-ALARMS.



103,252, ROBERT SPEAR.
PIPES FOR TRANSMITTING PNEUMATIC CURRENTS FOR MOTIVE POWER.



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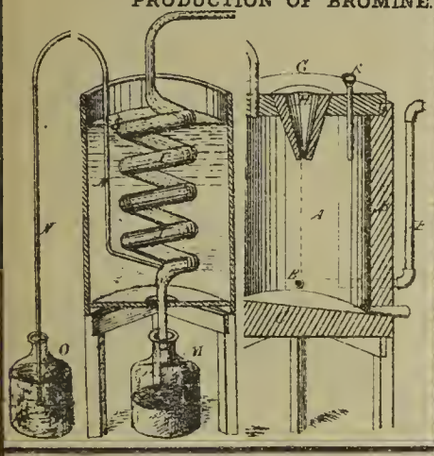
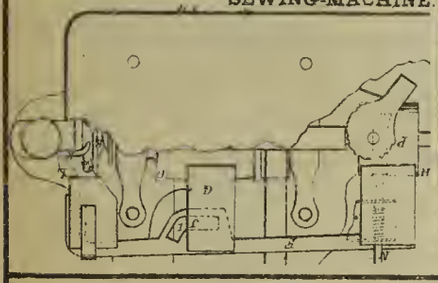
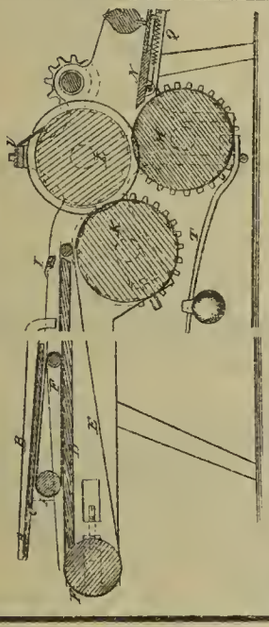
WILLIAM A. NISBET.
APPARATUS FOR THE PRODUCTION OF BROMINE.



103,254, LEVI W. STOCKWELL.
SEWING-MACHINE.

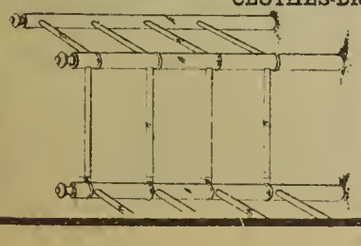


103,255, J. W. STONE.
TOBACCO-ROLLING MACHINE.

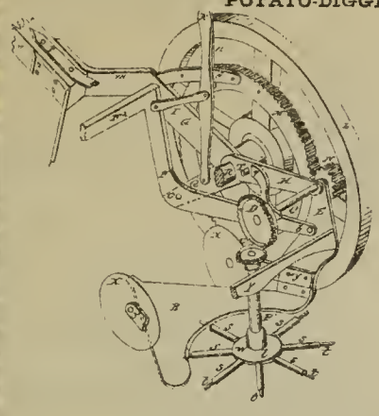


103,256, HENRY R. TOWNE.
KEY-HOLE GUARD-LOCKS.

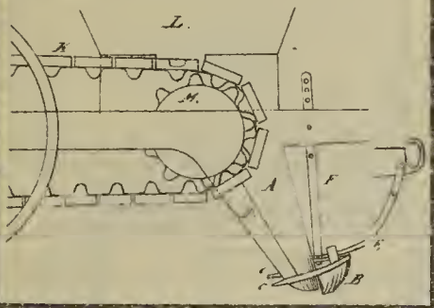
103,257, JOHN NAPOLEON VALLEY.
CLOTHES-DRIER.



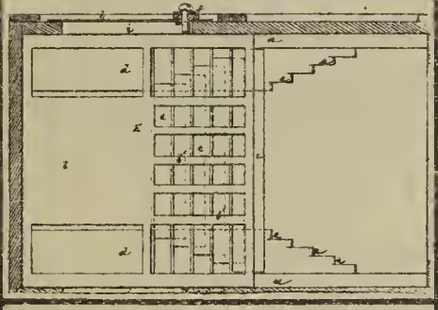
103,258, CORNELIUS VAN DERZEE.
BENJAMIN REAMER.
POTATO-DIGGERS.



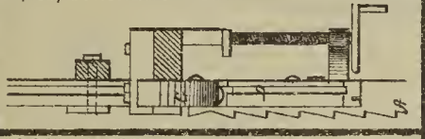
103,259. W. E. VERNON.
CORN PLANTER.



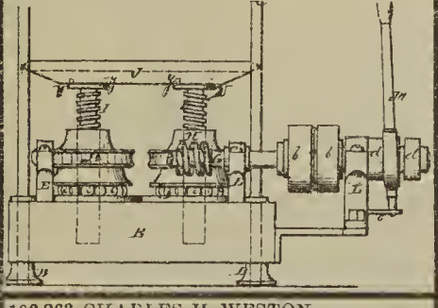
103,260, CHAS. A. WAKEFIELD.
EARTH-CLOSET.



103,261, CHARLES WARREN. SAW-MILLS.



103,262. C. H WESTON AND J. DENNIS.
CLOTH PRESS.



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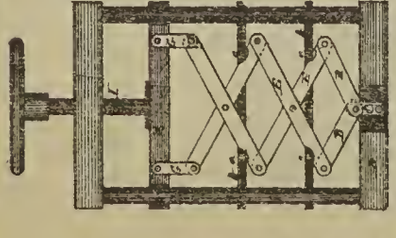
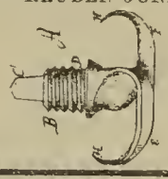
JOHN DENNIS.
CLOTH-PRESS.



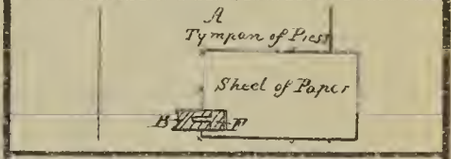
103,264, LEWIS WHITEHEAD.
HARNESS.

103,265, EDWIN F. WHITNEY.
REUBEN JONES.
BORING-TOOL.

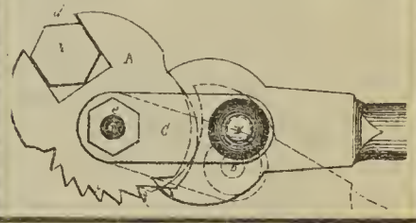


103,266, CHARLES D. WILLIAMS.
ARTIFICIAL FUEL.

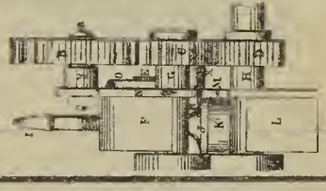
103,267, HENRY WILLSON. EMBOSSING ATTACHMENT FOR PRINTING-PRESSES.



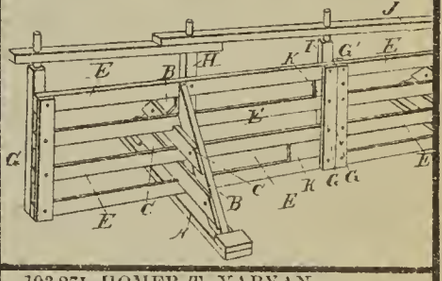
103,268, WALTER F. WOLFKIEL.
WRENCHES.



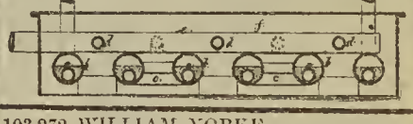
103,269, GEORGE C. WRIGHT.
GEARING FOR CLOTHES-WRINGERS.



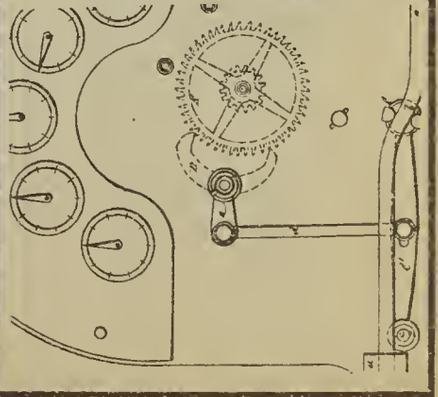
103,270, WILLIAM P. WRIGHT. FENCES.



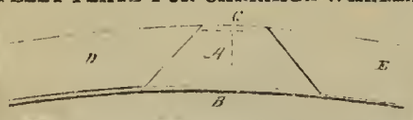
103,271, HOMER T. YARYAN.
APPARATUS FOR REFRIGERATING AND MAKING ICE.



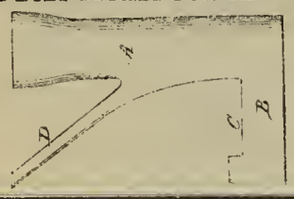
103,272, WILLIAM YORKE.
REGISTER FOR ODOMETERS, &c.



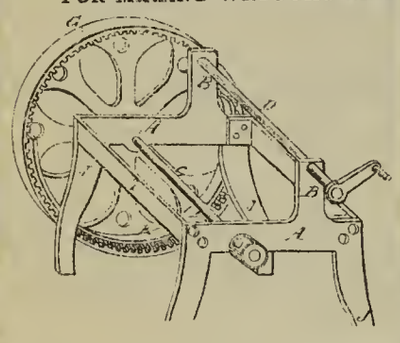
103,273, F. B. MORSE.
FELLY-PLATE FOR CARRIAGE-WHEELS.



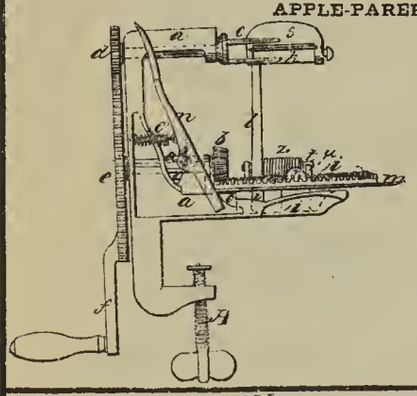
103,274, F. B. MORSE.
KING-BOLT SOCKET FOR CARRIAGES.



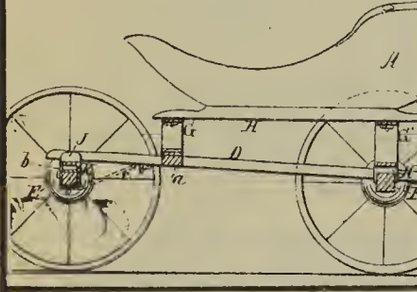
3,969, DANIEL ARMSTRONG. MACHINES FOR MAKING WROUGHT NAILS.



3,970, ASAHEL G. BATCHELDER.
APPLE-PARER.

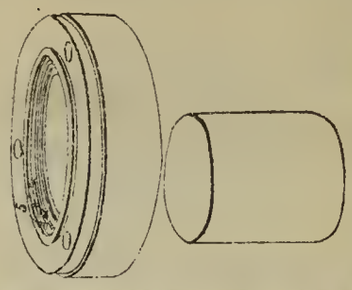


3,971, B. P. CRANDALL.
CHILDREN'S CARRIAGES.

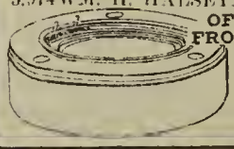


3,972, WM. E. CRANDALL.
CHILDREN'S CARRIAGES

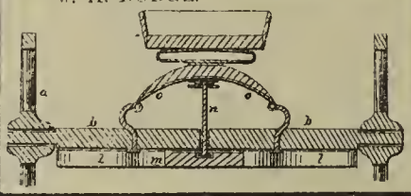
3,973, WM. H. HALSEY.
MOLDING WATCH-CASES, LOCKETS, AND OTHER ARTICLES, FROM HARD RUBBER.



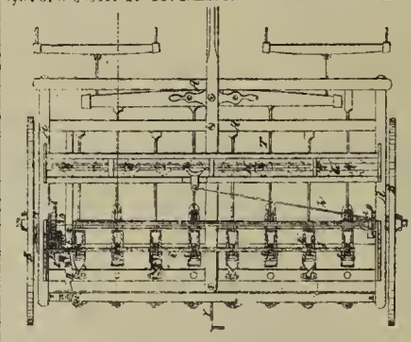
3,974 WM. H. HALSEY. NEW ARTICLES OF MANUFACTURE FROM HARD RUBBER.



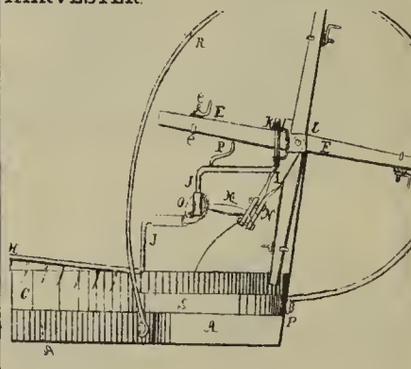
3,975, L. M. HAM. J. H. DODGE. WAGONS.



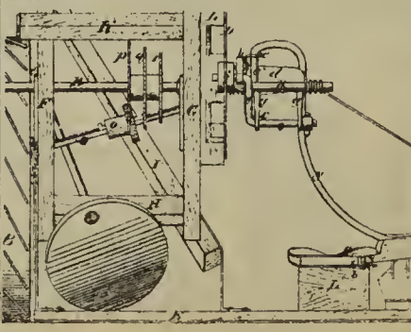
3,976, JOSEPH INGELS. GRAIN-DRILLS



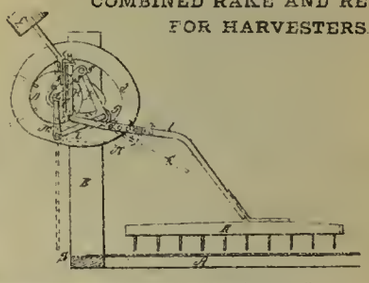
3,977. C. H. AND L. J. McCORMICK.
HARVESTER.



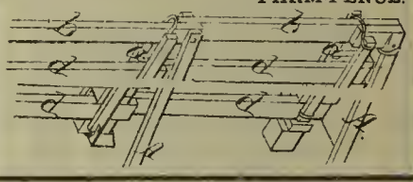
3,978. C. H. AND L. J. McCORMICK.
HARVESTER RAKE.



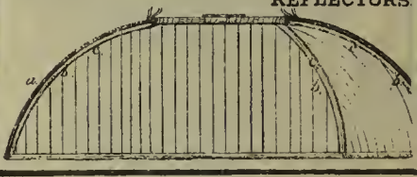
3,979, McCLINTOCK YOUNG, JR. C. H. McCORMICK. L. J. McCORMICK.
COMBINED RAKE AND REEL FOR HARVESTERS.



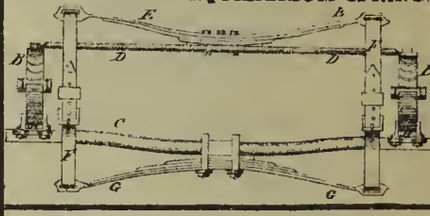
3,980, CHARLES W. REEDER.
FARM-FENCE.



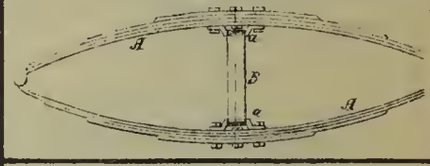
3,981, WM. G. SCHMIDLIN. J. W. DRISCOLL.
REFLECTORS.



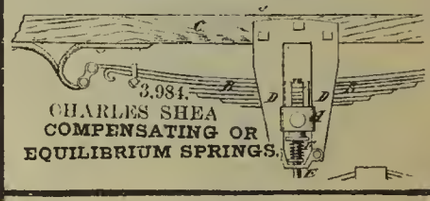
3,982, CHARLES SHEA.
EQUILIBRIUM SPRING.



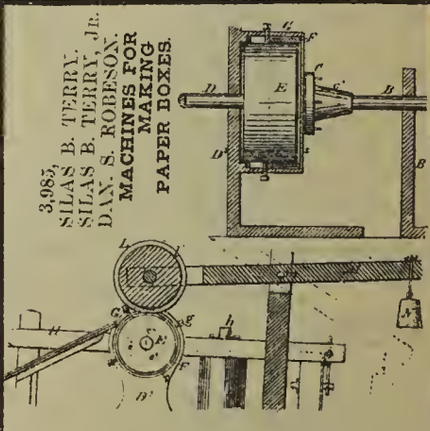
3,983, CHARLES SHEA.
COMPENSATING SPRING.



3,984, CHARLES SHEA
COMPENSATING OR EQUILIBRIUM SPRINGS.



3,985, SILAS B. TERRY. SILAS B. TERRY, JR. DAN. S. ROBESON.
MACHINES FOR MAKING PAPER BOXES.



3,986, E. W. VAILL. FOLDING CHAIR.

ILLUSTRATIONS OF PATENTS

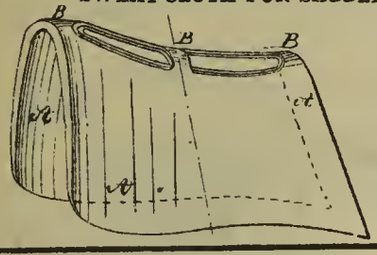
ISSUED FROM

THE UNITED STATES PATENT OFFICE

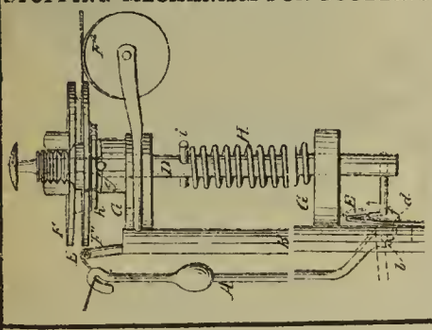
MAY 24, 1870.

103,275, STEPHEN M. ALLEN.
PREPARING THE FIBER OF RAMIE AND OTHER PLANTS.

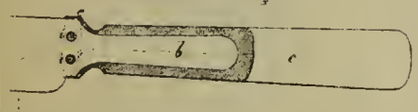
103,276, RICHD. ALLISON.
SWEAT-CLOTH FOR SADDLES.



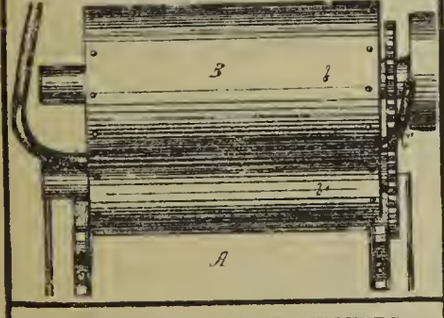
103,277, JAMES ARNOLD.
SPOOLING, AND LIKE MA-CHINES. STOPPING MECHANISM FOR DOUBLING.



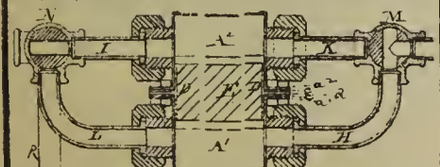
103,278, J. B. BAILEY.
HANDLES FOR KNIVES.



103,279, JOHN W. BAILEY.
ROTARY STEAM-ENGINE.

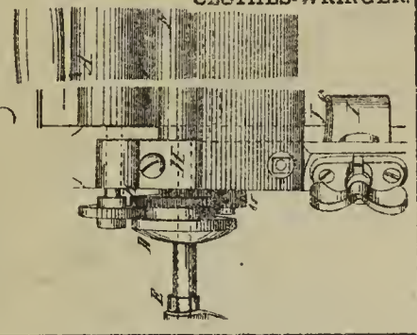


103,280, THOMAS BARROWS. **FILTERS.**



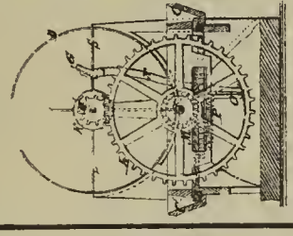
103,281, HARRY S. BARTHOLOMEW.
BIT-STOCKS.

103,282, ELBRIDGE G. W. BARTLETT.
CLOTHES-WRINGER.

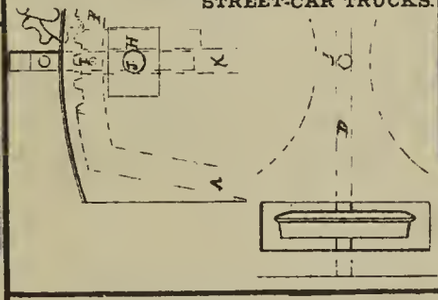


103,283, WM. H. BELL.
DEVICE FOR HITCHING HORSES.

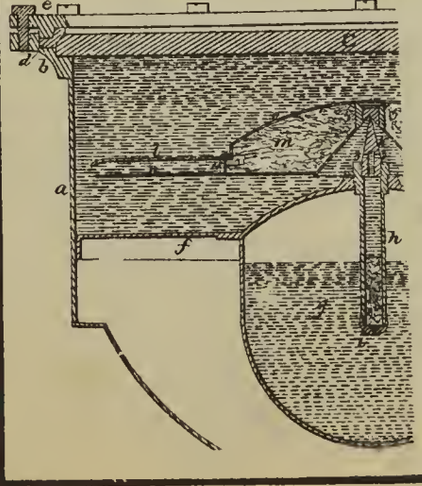
103,284, GEORGE W. BENNETT.
APPLE-PARER, CUTTER, AND CORER.



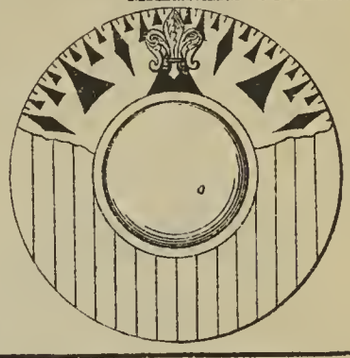
103,285, JOHN BERRY.
STREET-CAR TRUCKS.



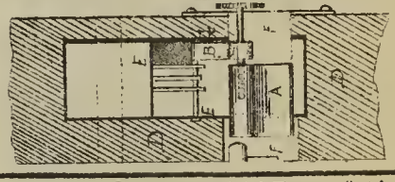
103,286, JOHN BLISS.
GEO. H. BLISS.
MARINERS' COMPASSES.



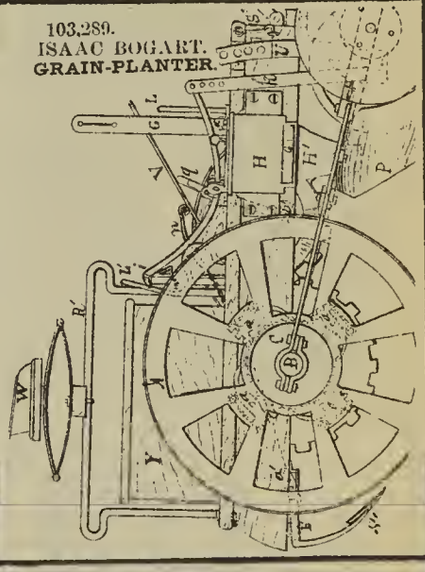
103,287, JOHN BLISS.
GEO. H. BLISS.
MARINERS' COMPASSES.



103,288. JAMES F. BODTKER.
KEY-HOLE GUARD.



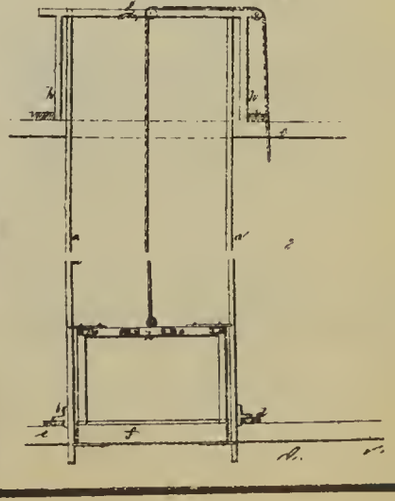
103,289.
ISAAC BOGART.
GRAIN-PLANTER.



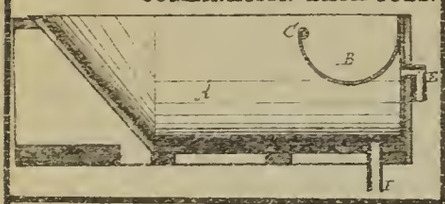
103,290, JAMES BOWKER.
PAINT FOR SHIPS' BOTTOMS, &c.

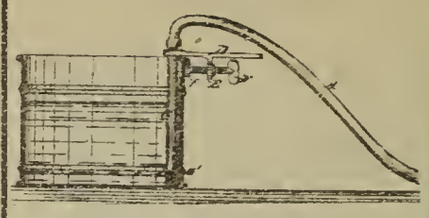
103,291. J. BOWKER.
VARNISH FOR TIN WARE.

103,292, GEO. W. BROWN.
HOISTING APPARATUS.

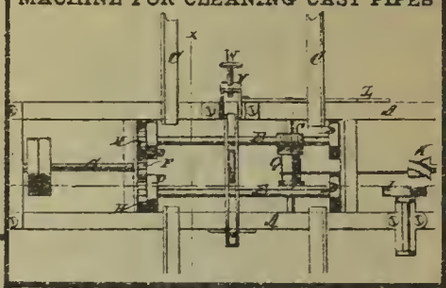


103,293, A. C. BROWNELL.
COMBINATION BATH-TUBS.

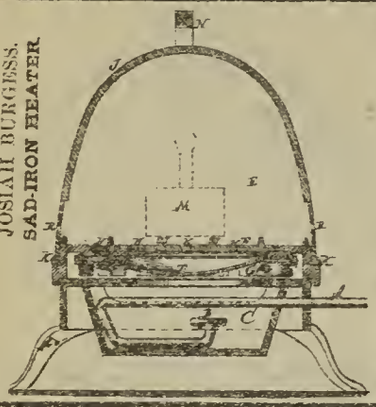




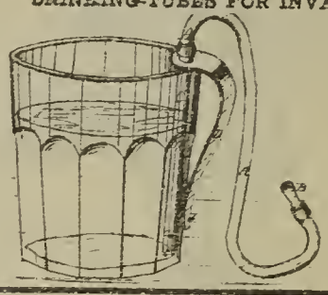
103,305, HENRY DAVIES.
MACHINE FOR CLEANING CAST PIPES



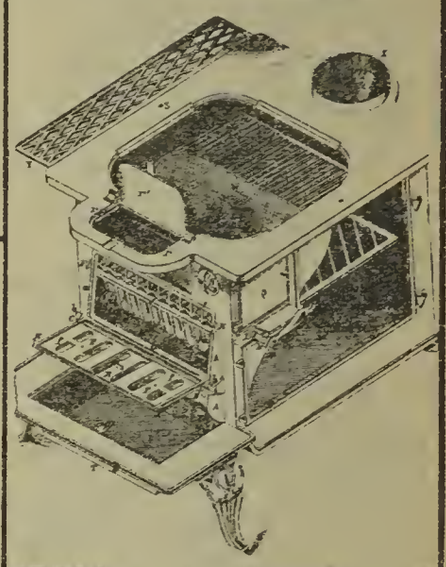
103,294, JOSIAH BURGESS.
SAD-IRON HEATER.



103,300, EUGENE CHAPIN.
DRINKING-TUBES FOR INVALIDS.

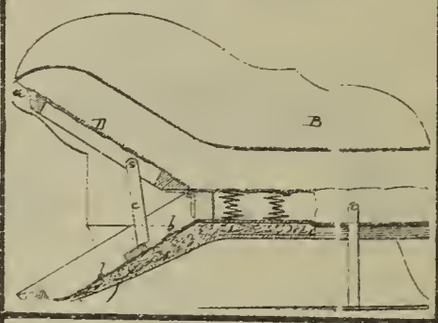


103,306, W. C. DAVIS.
J. W. GARRISON.
COOKING-STOVE

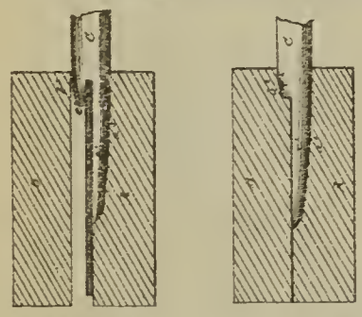


103,295, FREDERICK BURGHARDT.
ADJUSTABLE COUPLING FOR JOURNALS, AXLES,

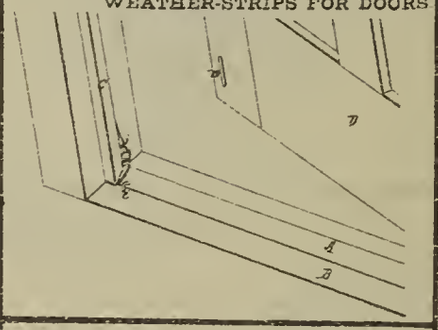
103,301, WM. H. COLLEY. LOUNGE



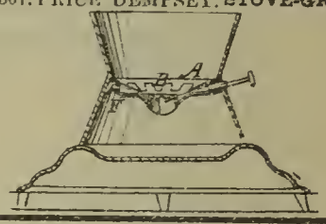
103,296, LEANDER BURNS.
DIE FOR FORMING CARRIAGE-STEPS.



103,302, ERASTUS G. COVEY.
ADDISON BIRCH.
WEATHER-STRIPS FOR DOORS

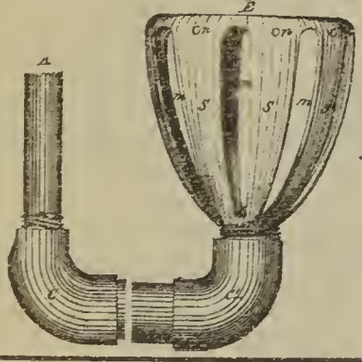


103,307, PRICE DEMPSEY. STOVE-GRATE.

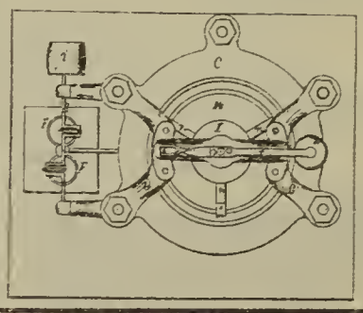


103,308, CASPER DITTMAN. NUT-LOCK.

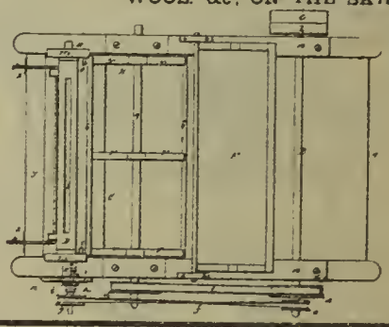
103,297, CALVIN C. BURT.
GAS-HEATER



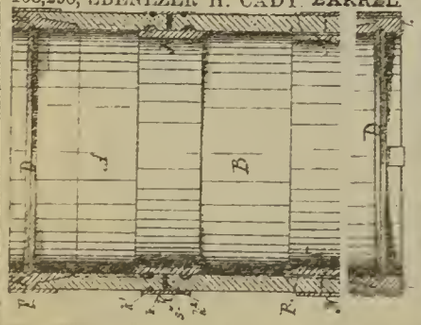
103,303, HARRY A. CROSSLEY.
MACHINES FOR BEVELING AND CROZING BARRELS.



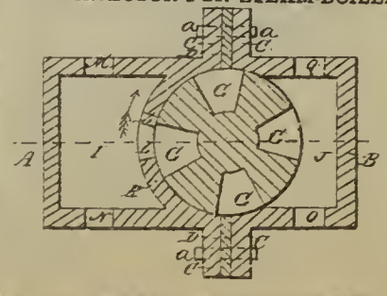
103,309, GEO. F. DOCKHAM.
MACHINES FOR BURRING WOOL, &c., ON THE SKIN



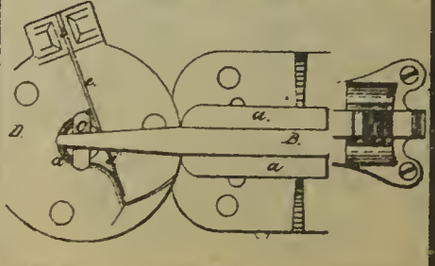
103,298, EBENEZER H. CADY. BARREL.



103,304, H. C. CROWELL. ROTARY INJECTOR FOR STEAM-BOILERS.

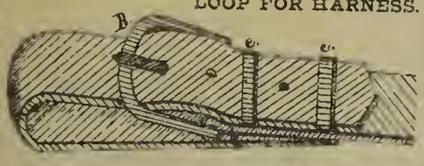


103,310, JAMES DOTY.
ASA H. DOTY.
TOWING-HOOKS FOR CANAL-BOATS.



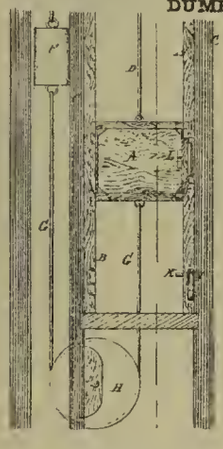
103,299, EUGENE CHAPIN.
DRINKING-TUBES FOR INVALIDS.

03,311. GEORGE L. DU LANEY.
JAMES S. HUSTON.
LOOP FOR HARNESS.

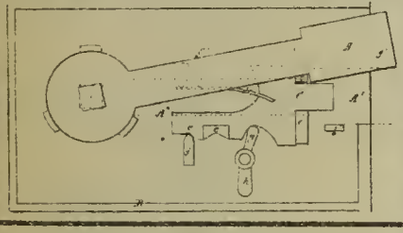


103,312. A. K. EATON.
TOOLS AND WHEELS FOR CUTTING AND POLISHING IRON, STEEL AND OTHER MATERIALS.

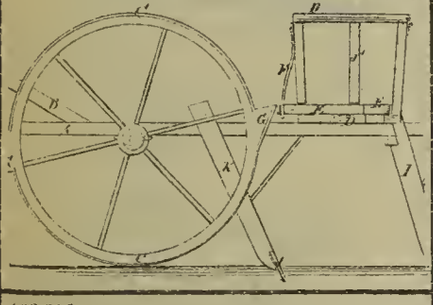
103,313, WILLIAM H. ELLIOTT.
DUMB-WAITER



103,314. M. PROCTOR FAVOR. LATCHES

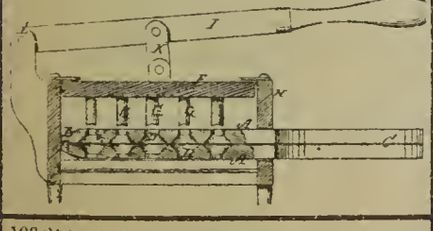


103,315 JOHN G. FETZER.
CORN-PLANTERS.

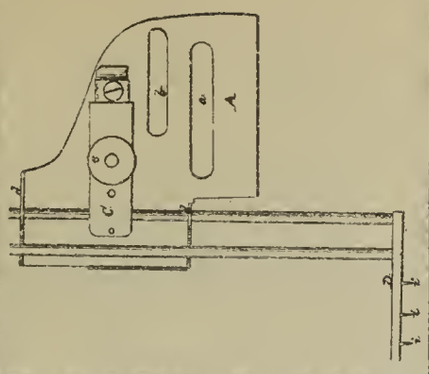


103,316, J. BENTLEY FIELD.
SHUTTER-FASTENERS.

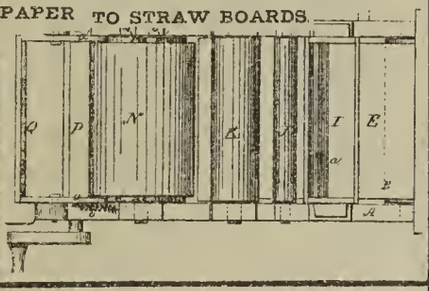
103,317, CHAS. A. FISHER.
CHERRY-STONER.



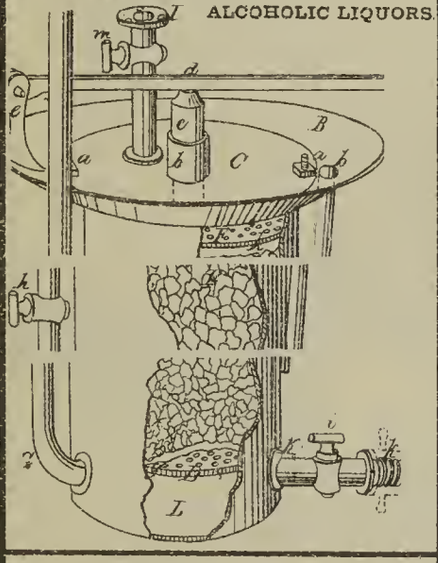
103,318. HART A. FISHER.
GATHERING ATTACHMENT FOR SEWING-MACHINES.



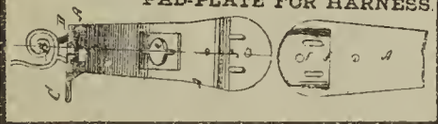
103,319. M. FITZGIBBONS.
MACHINE FOR ATTACHING THIN PAPER TO STRAW BOARDS.



103,320, CH. L. FLEISCHMANN.
APPARATUS FOR RECTIFYING ALCOHOLIC LIQUORS.



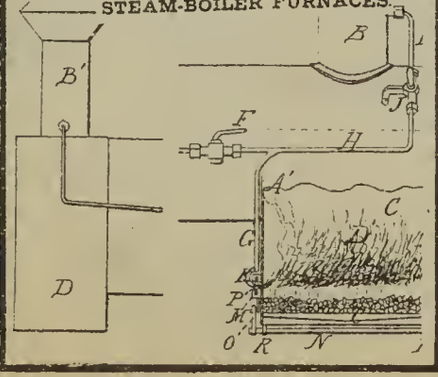
103,321, CONRAD GAHR.
PAD-PLATE FOR HARNESS.



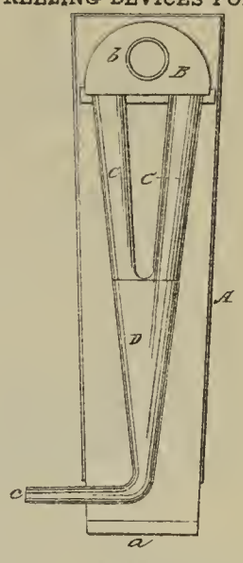
103,322. CANCELED.

103,323, JOHN D. GREY.
MANUFACTURE OF SHEET-IRON.

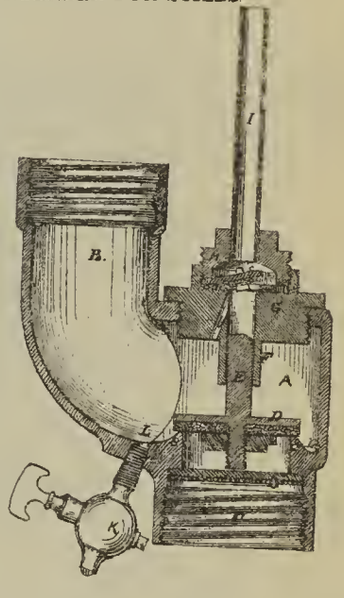
103,324, CHARLES JOHN HAGSTREEM.
STEAM-BOILER FURNACES.



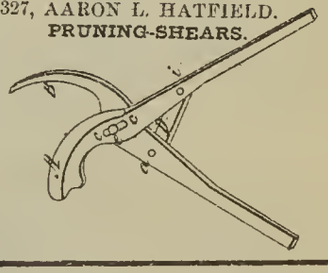
103,325, JOHN G. HANNING.
ANTI-FREEZING DEVICES FOR PUMPS.



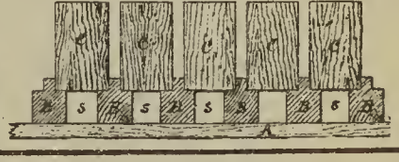
103,326, JOHN HARRISON.
CALEB LOW.
CONDENSER FOR STILLS.



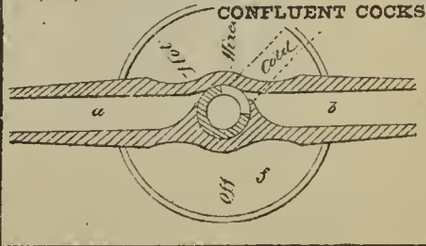
103,327, AARON L. HATFIELD.
PRUNING-SHEARS.



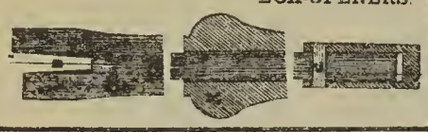
103,328, HERMAN HAUPT.
WOOD-PAVEMENT.



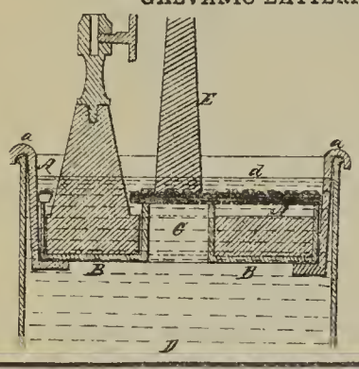
103,329, J. H. G. HAWES.
CONFLUENT COCKS.



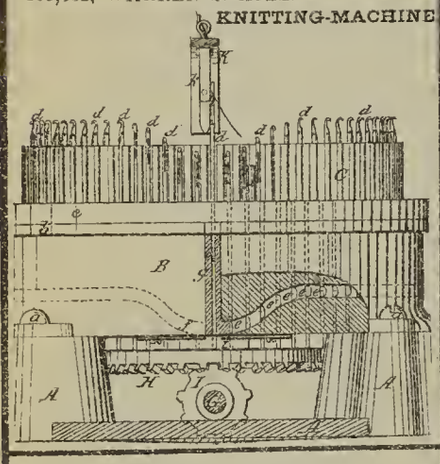
103,330, ALBERT HEUSSER.
BOX-OPENERS.



103,331, JOSEPH HILL.
GALVANIC BATTERIES.

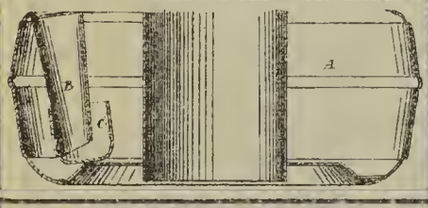


103,332, WARREN S. HILL.
KNITTING-MACHINE

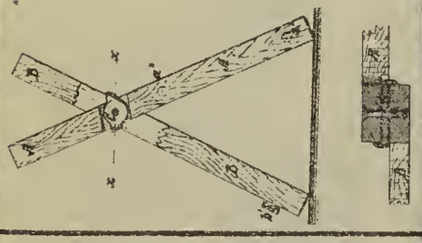


103,333, CHARLES HOLLMANN.
LAYING MALTING-FLOORS.

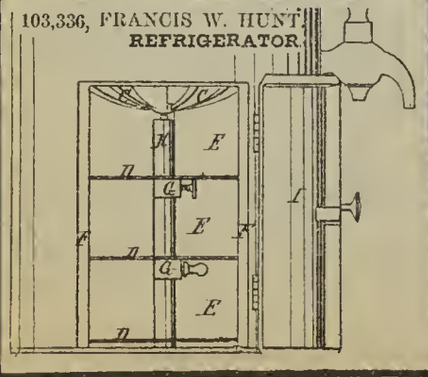
103,334, MARK W. HOUSE.
FEED-TRAP FOR LAMPS.



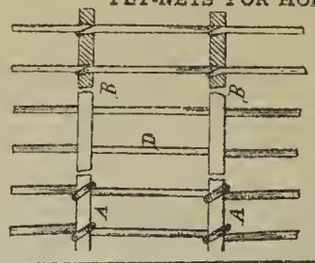
103,335, LEONARD D. HOWARD
SAW-BUCKS.



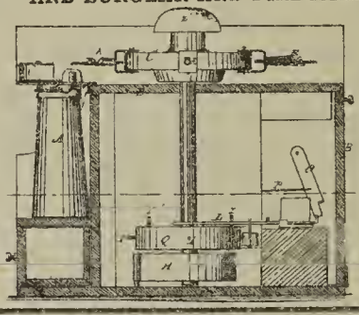
103,336, FRANCIS W. HUNT.
REFRIGERATOR.



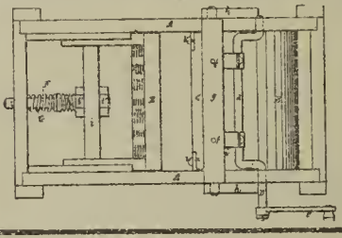
103,337, JAMES S. HUSTON.
FLY-NETS FOR HORSES.



103,338, J. B. IRWIN. LAMP-LIGHTER.
AND BURGLAR AND FIRE-ALARM.

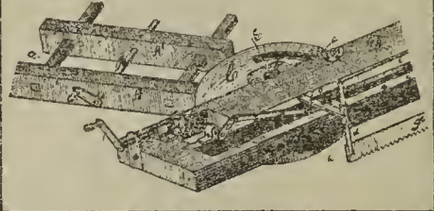


103,339, JOSEPH JOHNSON.
WASHING-MACHINE.

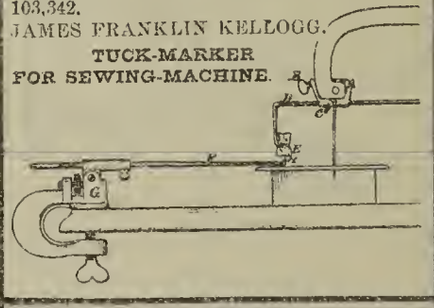


103,340, W. R. JOHNSTON
MANUFACTURE OF CITRIC ACID.

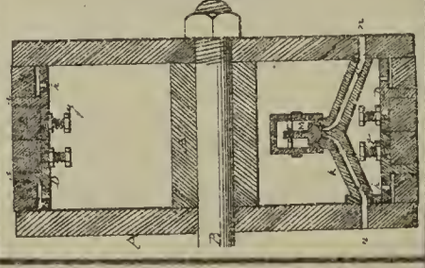
103,341, F. C. JONES. MITER-MACHINE.



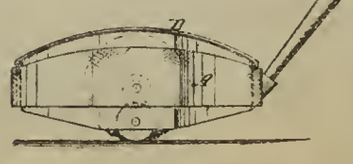
103,342.
JAMES FRANKLIN KELLOGG.
TUCK-MARKER
FOR SEWING-MACHINE.



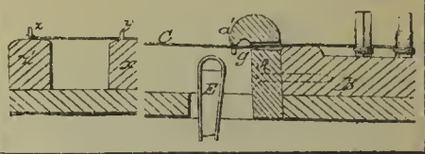
103,343. ORLANDO KELSEY.
PISTON-PACKING.



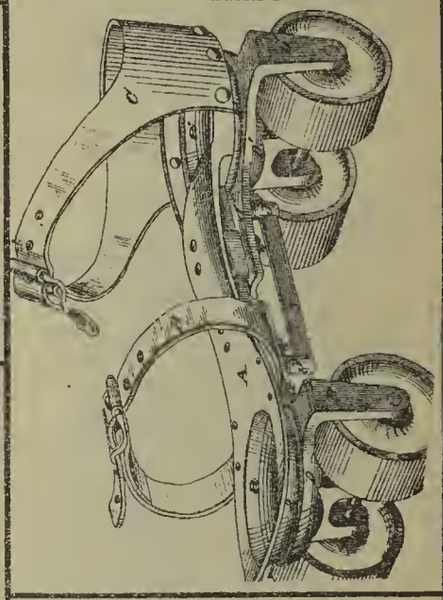
103,344. A. J. KNIGHT.
GUARD FOR CARPET-SWEEPERS.



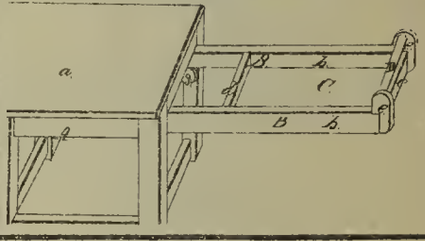
103,345. CHRISTIAN KURTZMANN.
PIANOS



103,346. JOHN LEMMAN.
PARLOR-SKATES.

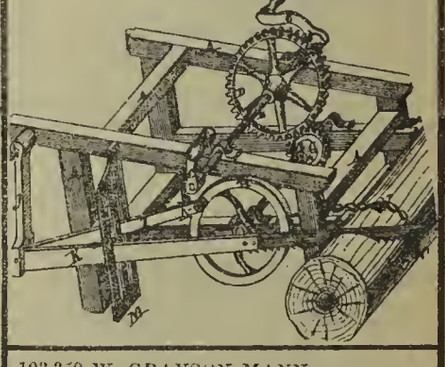


103,347. M. LEPP. SAW-TABLES.

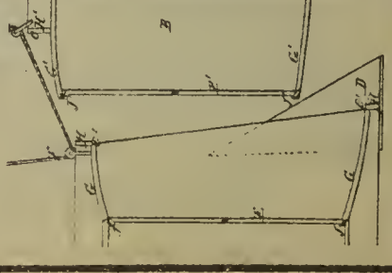


103,348, EDWIN T. LIGON. LOCK-NUT.

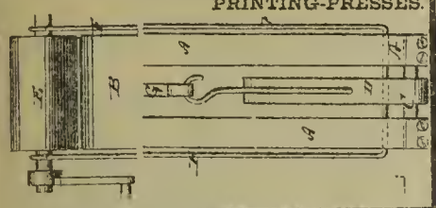
103,349, BENJAMIN LITTLE.
JOHN B. LUNDBERG.
SAWING-MACHINE.



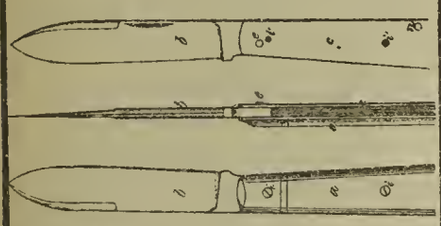
103,350, W. GRAYSON MANN.
TUBULAR SUBMARINE VIADUCTS.



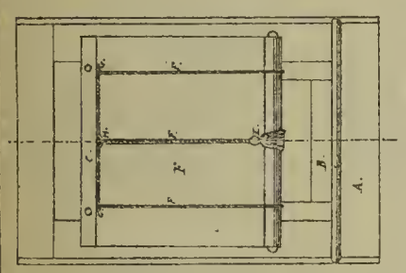
103,351, C. C. MAURICE.
PRINTING-PRESSES.



103,352, WM. H. MILLER.
GEO. W. MILLER.
POCKET CUTLERY.



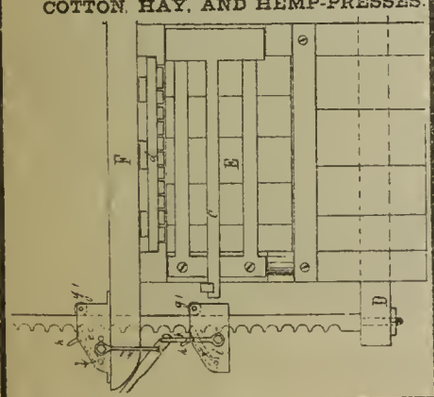
103,353, JAMES MONTGOMERY.
CURTAIN-FIXTURE.



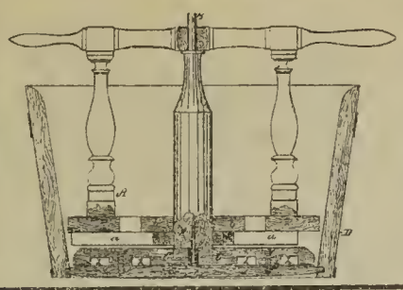
103,354, FRANK MOON.
STOVE-LEG FASTENER.

103,355,
AFRED L. D. MOORE.
OX-BOWS.

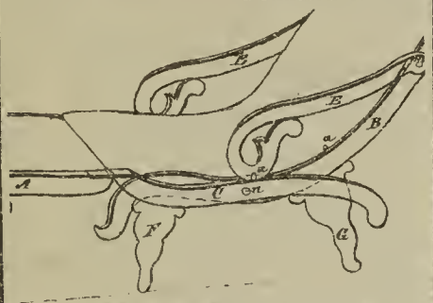
103,356, W. H. MORRIS.
COTTON, HAY, AND HEMP-PRESSES.



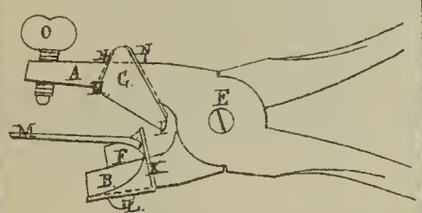
103,357, RUSSELL S. MORSE.
WASHING-MACHINE.



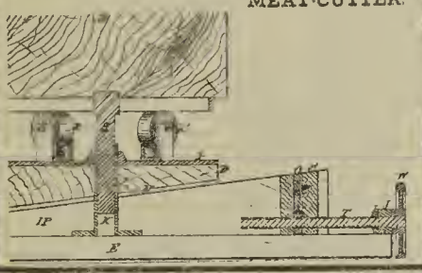
103,358, WILLIAM MORSTATT.
FOLDING CHAIR.



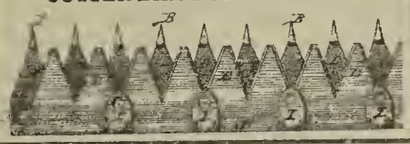
103,359, JAMES MORTON. SAW-SET.



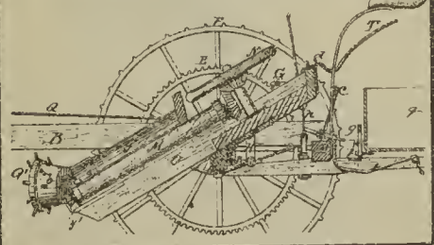
103,360, AUGUST NITTINGER, JR.
MEAT-CUTTER.



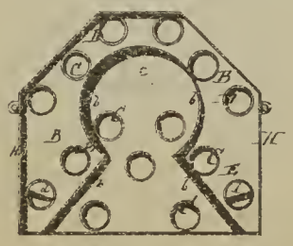
103,361, W. J. OXER.
CUTTER-BAR FOR HARVESTERS.



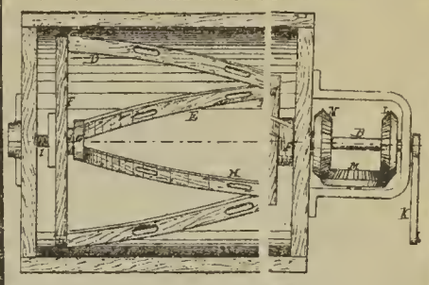
103,362, SAMUEL PATTON. COMBINED
CORN-HARVESTER AND HUSKER.



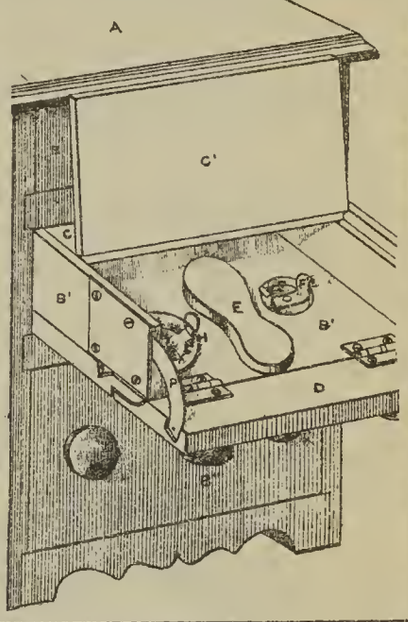
103,363, ABRAHAM L. PENNOCK.
STEAM-GENERATORS.



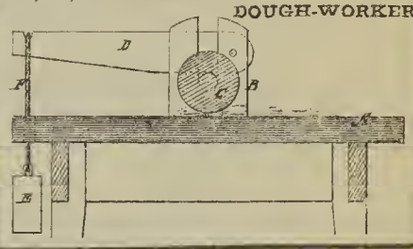
103,364, W. H. PENNOCK. CHURNS.



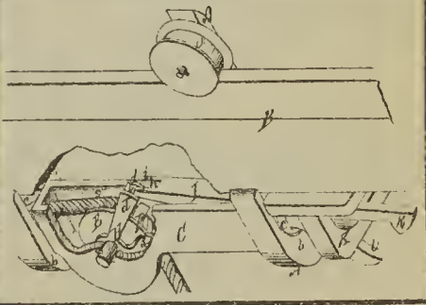
103,365, WILLIAM E. PHELPS.
BOOT-BLACKING
ATTACHMENT TO BUREAUS.



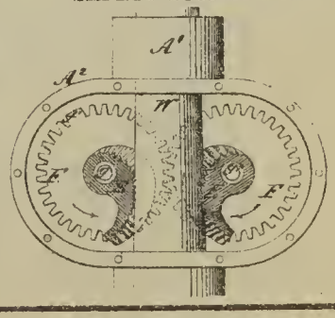
103,366, WILLIAM R. POOL.
DOUGH-WORKER.



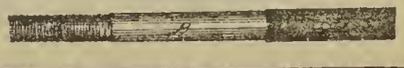
103,367, THOMAS J. POWELL.
ELEVATOR AND CONVEYER.



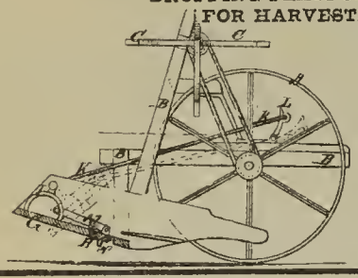
103,368, WINTHROP DAVIS PUTNAM.
SAFETY SOCKET FOR WHIPS.



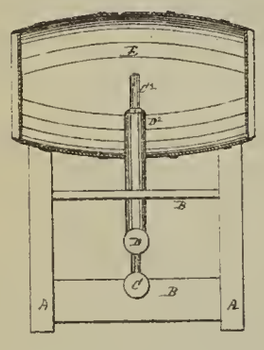
103,369, THOMAS L. REED.
FLEXIBLE TUBING OR HOSE.



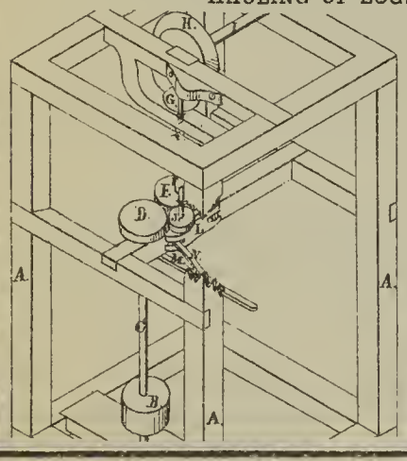
103,370. BARTIN T. REYNOLDS.
DROPPING-PLATFORM FOR HARVESTERS.



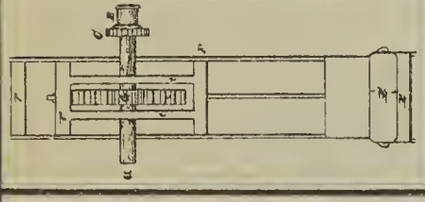
103,371, THOMAS his + mark REYNOLDS.
MACHINES FOR WASHING BARRELS.



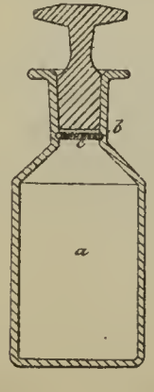
103,372. SIMON H. RICHARDSON.
HAULING UP LOGS.



103,373, W. D. ROBERTSON.
DREDGING-MACHINES.

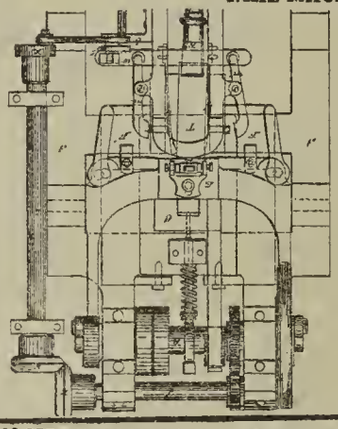


103,374, EDWARD P. ROCHE, M. D.
DEVICE FOR NEBULIZING PERFUMES AND VOLATILE LIQUIDS.

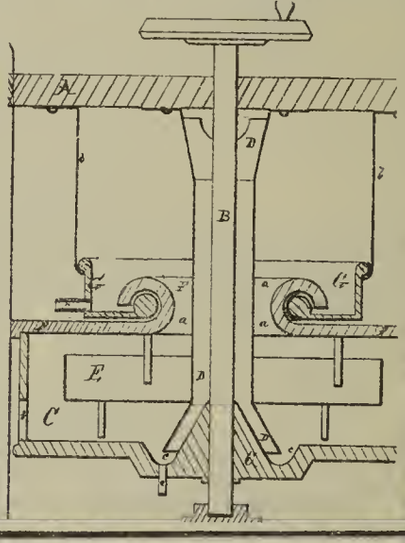


103,375, CHARLES B. SAWYER.
BALANCE ELEVATOR.

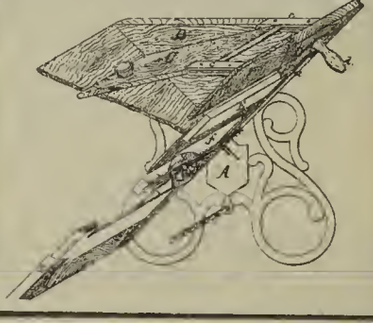
103,376, HENRY SCHEUERLE.
NAIL-MACHINE.



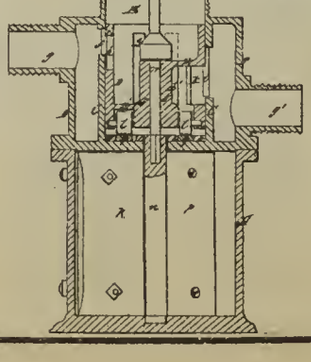
103,377, JOSEPH SCOTT. AMALGAMATOR AND ORE-CONCENTRATOR.



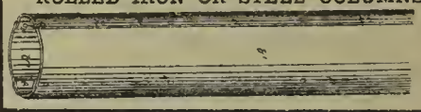
103,378, JOHN F. SHEPARD. GRATING, SIFTING, AND SLICING-MACHINE.



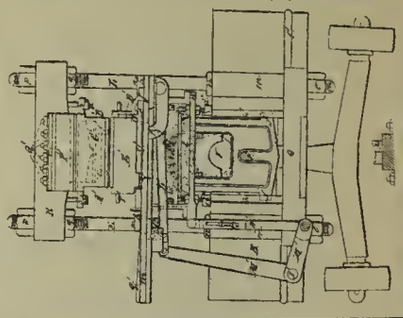
103,379, GERARD SICKELS.
WATER-METERS.



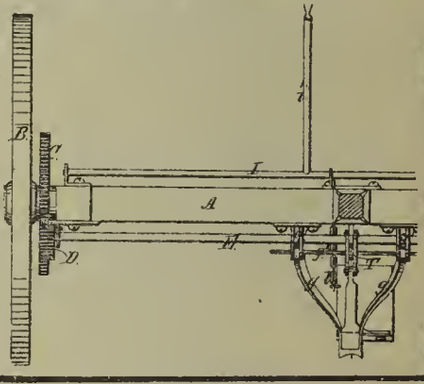
103,380, FREDERICK H. SMITH.
ROLLED IRON OR STEEL COLUMNS.



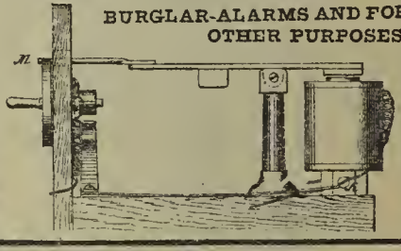
103,381, J. NOTTINGHAM SMITH.
BRICK-PRESS.



103,382, T. H. SMITH. SEED-PLANTERS.

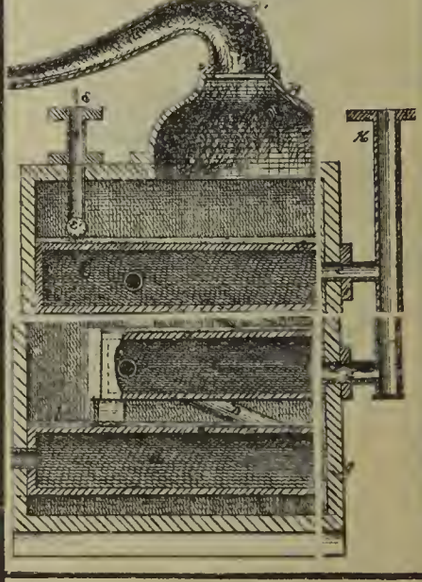


103,383, JAMES P. SNYDER.
ELECTRO-MAGNETIC INDICATORS FOR BURGLAR-ALARMS AND FOR OTHER PURPOSES.



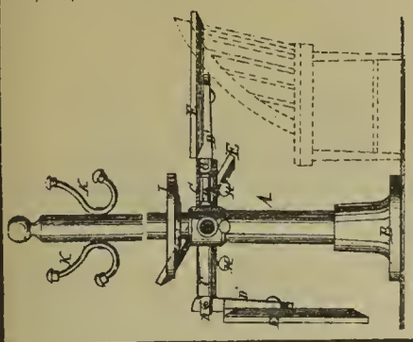
103,384, J. W. SPEYER.
SIZING COTTON AND OTHER FABRICS.

103,385, HENRY A. STEARNS.
APPARATUS FOR DISTILLING HYDROCARBONS.

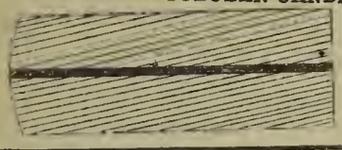


103,386, ORSON W. STOW.
TINSMITHS' SHEARS.

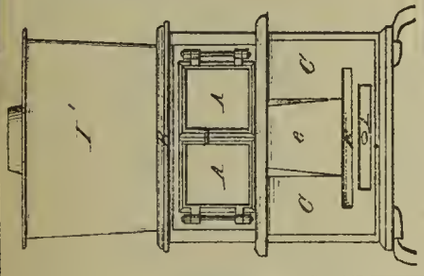
103,387, CHARLES T. SUTTON. TABLE.



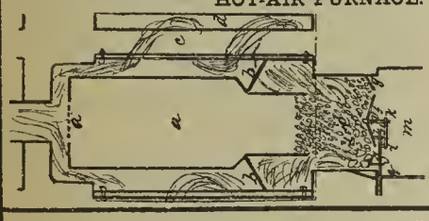
103,388, FREEMAN AUGUSTUS TABER.
MANUFACTURE OF TUBULAR CANDLES.



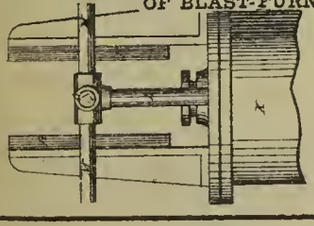
103,389. C. TEMME.
COOKING STOVE.



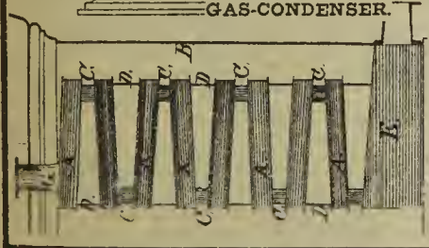
103,390, MOSES A. THAYER.
HOT-AIR FURNACE.



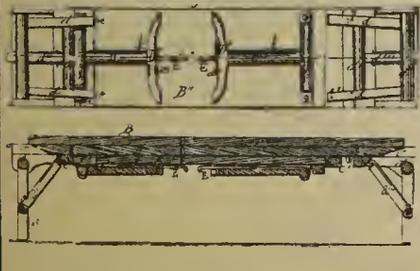
103,391, JAMES THOMAS. APPARATUS FOR OPENING AND CLOSING THE TOPS OF BLAST-FURNACES.



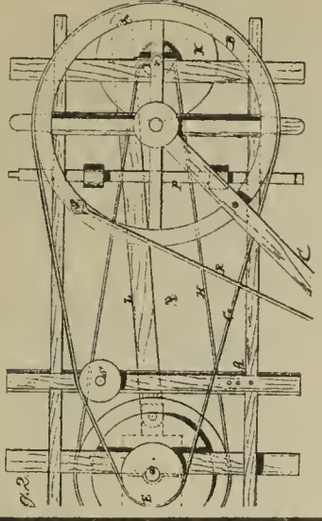
103,392, EDWD. THOMPSON.
GAS-CONDENSER.



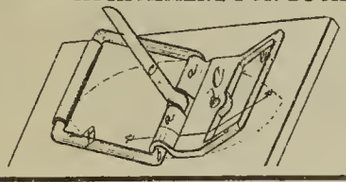
103,393, WM. F. TRAUTMAN.
PAPER-HANGERS' APPARATUS.



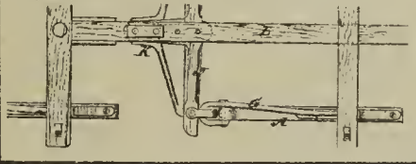
103,394, ASA TRONE.
HORSE-POWER SAWING-MACHINE.



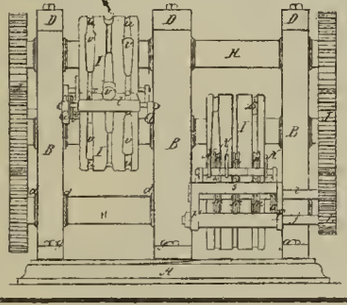
103,395, CHARLES H. TROTT.
ATTACHMENT FOR BUCKLES.

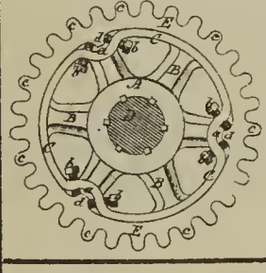


103,396, JOHN WAMPACH. BOB-SLED.



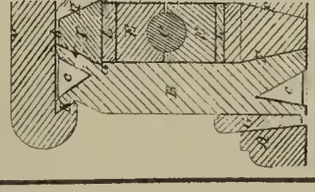
103,397. W. H. WARD.
MACHINE FOR ROLLING METALS.





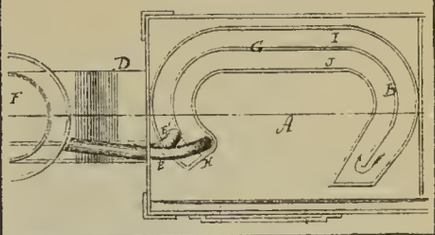
103,398, W. H. WARD
GEAR-WHEEL

103,399, W. H. WARD.
HOUSING FOR METAL-ROLLING MILLS.



103,400, HORACE WELLS.
SHUTTLES FOR LOOMS

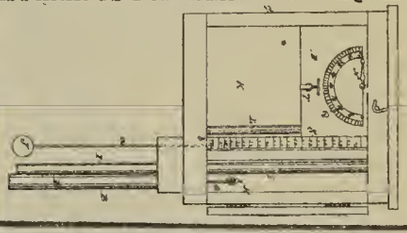
103,401, JAMES WESTERMAN.
FURNACES FOR BOILING AND PUDDLING IRON.



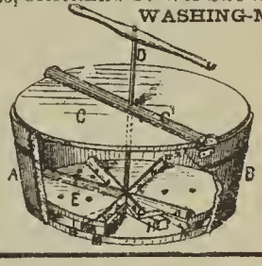
103,402, GEORGE F. WHITNEY.
COMPOUND FOR OILING, POLISHING, AND BLACKING LEATHER

103,403, L. A. WILDER.
ROOFING-COMPOUND.

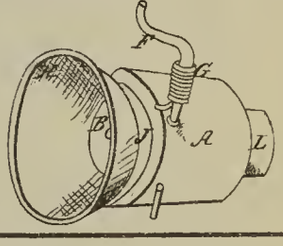
103,404 MOSES H. WILEY.
THOMAS MILLER.
APPARATUS FOR MEASURING LIQUIDS.



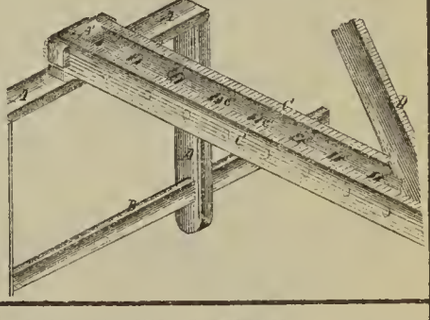
103,405, CHARLES P. WINSLOW.
WASHING-MACHINE.



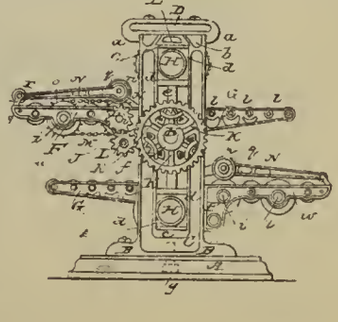
103,406, THOMAS J. WOOLCOCKS.
SPEAKING-TUBE WHISTLES.



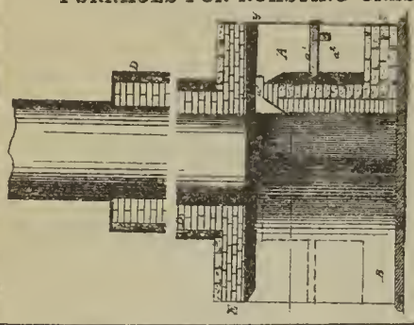
103,407, JAMES D. AKLEY.
RICHARD ENGLISH.
DEVICE FOR ADJUSTING CROSS-HEADS OF LOCOMOTIVES.



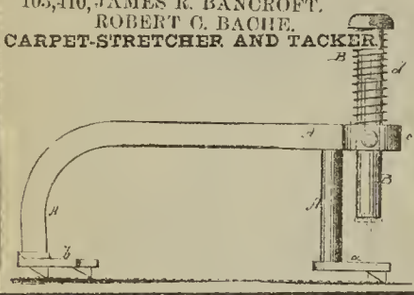
103,408, JONATHAN AMORY.
STEAM-GENERATORS AND FURNACES.



103,409, CHAS. M. ATKINS.
ALEXANDER GOVAN.
FURNACES FOR ROASTING ORES.

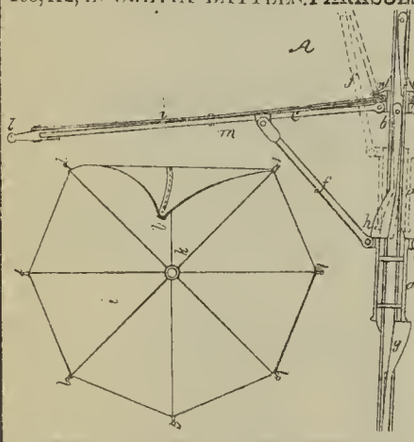


103,410, JAMES R. BANCROFT.
ROBERT C. BACHE.
CARPET-STRETCHER AND TACKER.

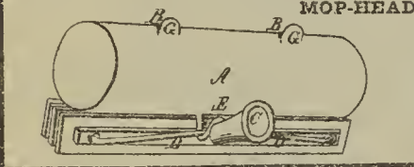


103,411, WM. H. BARR. **LINIMENT.**

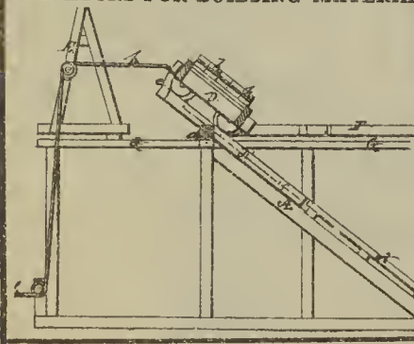
103,412, LUCRETIA BATTLES. **PARASOLS.**



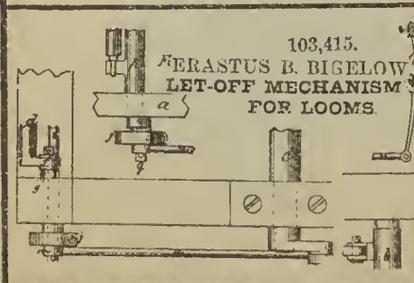
103,413, WILLIAM HEWITT BEATTY
MOP-HEAD.



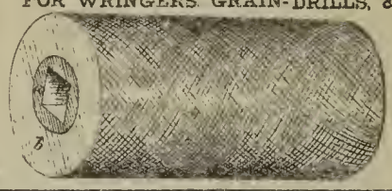
103,414, DAVID N. GREEN.
JOHN C. BENNETT.
ELEVATORS FOR BUILDING MATERIAL.



103,415.
ERASTUS B. BIGELOW.
LET-OFF MECHANISM FOR LOOMS.



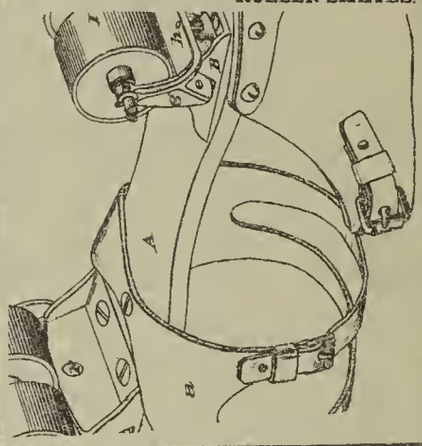
103,416, JAMES R. BIRD.
GEO. C. SMITH.
VULCANIZED INDIA-RUBBER ROLLS FOR WRINGERS, GRAIN-DRILLS, &c.



103,417, JOHN BLISS.
GEO. H. BLISS.
STANDS FOR TRANSIT INSTRUMENTS.

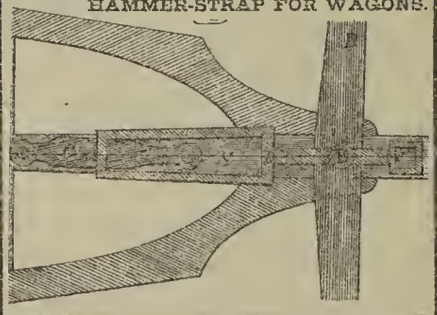
103,418, SAMUEL BOTHWELL.
WELDING POWDER FOR IRON AND STEEL.

103,419, R. T. BRADLEY.
H. W. WANSBROUGH.
ROLLER-SKATES.

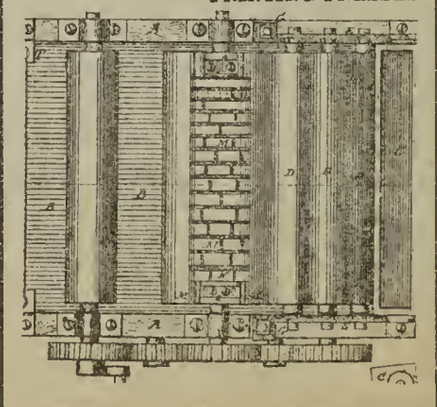


103,420, MELLEN BRAY.
NOZZLE AND STOPPER FOR CANS, &c.

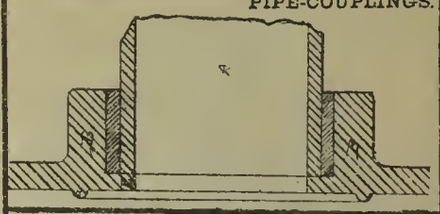
103,421, CHARLES BROWN.
HAMMER-STRAP FOR WAGONS.



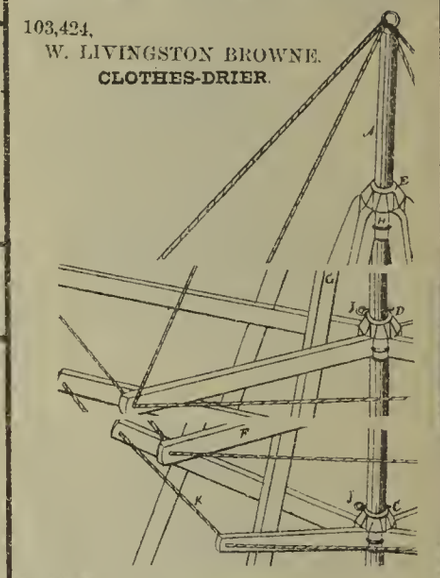
103,422, J. BAILEY BROWN.
PRINTING-PRESSES.



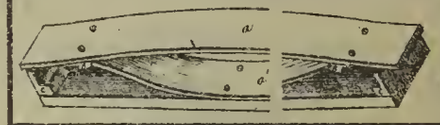
103,423, JOSEPH R. BROWN.
PIPE-COUPLINGS.



103,424,
W. LIVINGSTON BROWNE.
CLOTHES-DRIER.



103,425, D. C. BRONSON.
SPRING BED-BOTTOM.



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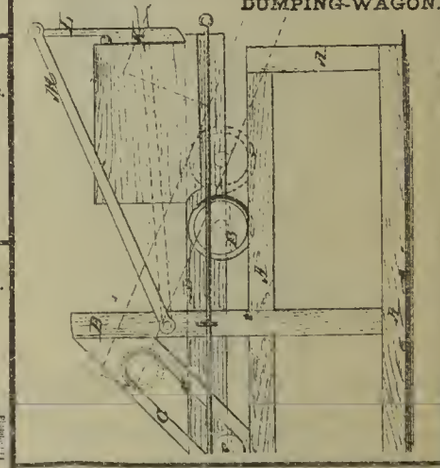
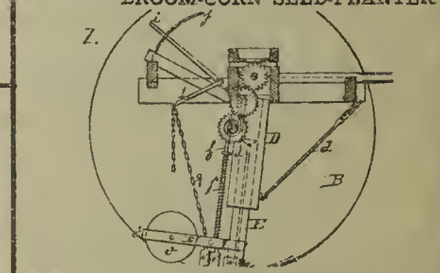
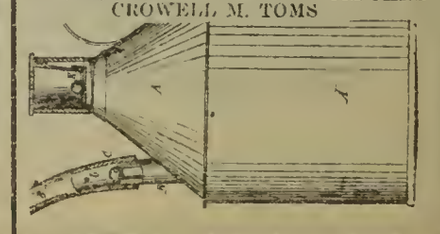
SAMUEL LANTZ.
DUMPING-WAGON.



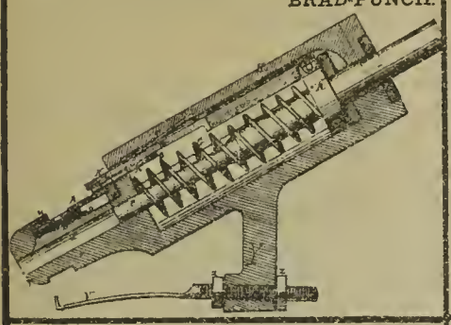
103,427, JACOB BUSH.
BROOM-CORN SEED-PLANTER.



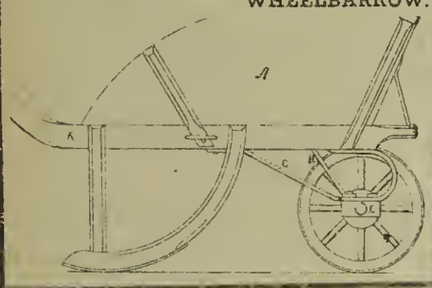
103,428, JOHN R. COMPTON. **OIL-CANS.**
CROWELL M. TOMS



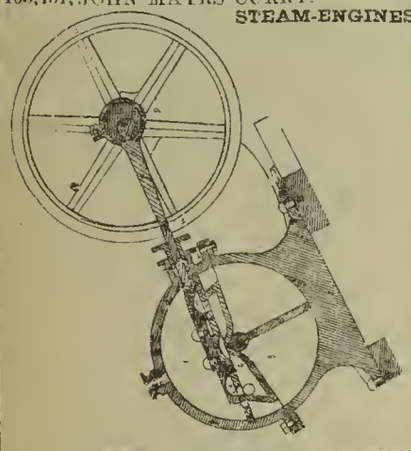
103,429, ROSWELL F. COOK. BRAD-PUNCH.



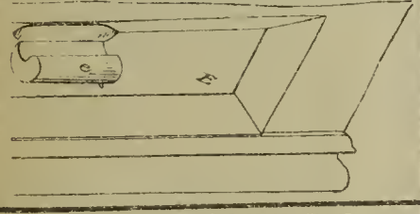
103,430, NELSON CRONKITE. WHEELBARROW.



103,431, JOHN MAYRS CURRY. STEAM-ENGINES.



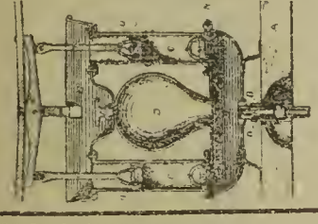
103,432. WALL-PAPER PROTECTOR. MARY DISSTON.



103,433. C. M. TESSIE DU MOTAY. PROCESS OF EXTRACTING SILVER AND GOLD FROM ARSENIO-SULPHURETS OF LEAD, COPPER, &c.

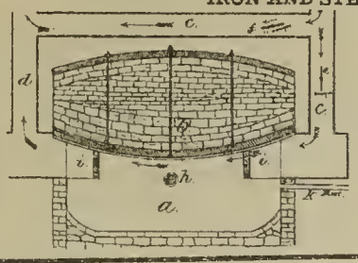
103,434. C. M. TESSIE DU MOTAY. PROCESS FOR THE TREATMENT OF ORES.

103,435. B. W. FELTHOUSEN. PUMPS.

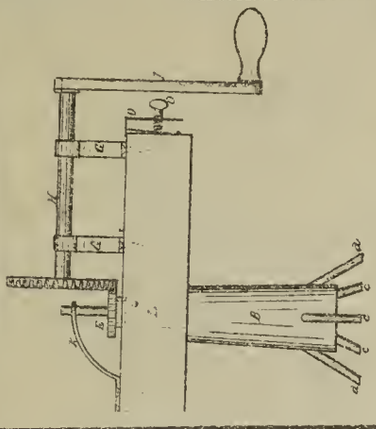


103,436, B. L. FETHEROLF. TATTING-SHUTTLES.

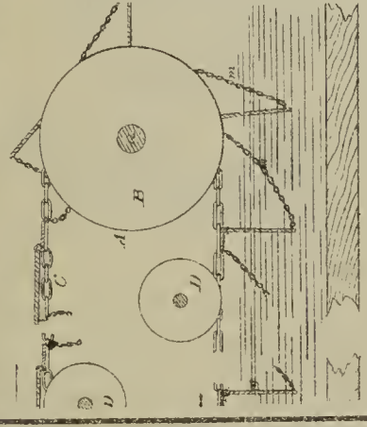
103,437. W. FIELDS. FURNACES FOR TREATING CAST-IRON TO CONVERT THE SAME INTO IRON AND STEEL.



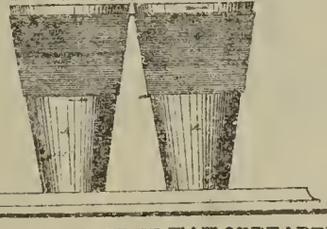
103,438, WM. L. FRAZEE. WASHING-MACHINE.



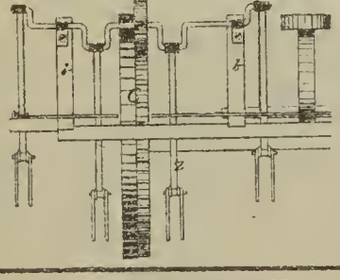
103,439. ABEL FRENCH. WATER-POWER MECHANISM.



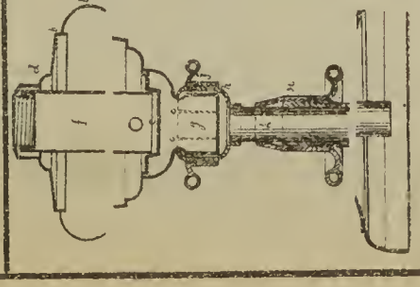
103,440, M. S. FROST. ELECTRO-MAGNETS.



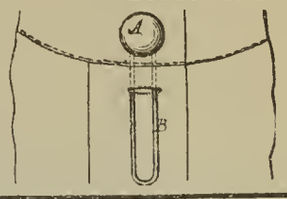
103,441, W. H. H. FRYE. HAY-SPREADERS.



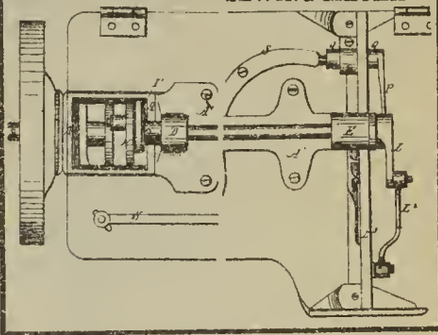
103,442, JIM B. FULLER. LAMPS.



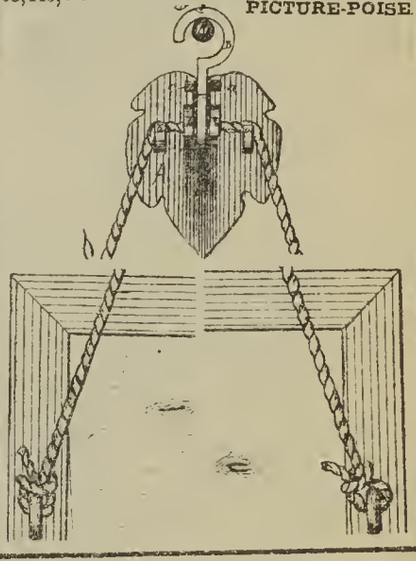
103,443, J. C. GASTON. BUTTON-FASTENINGS.



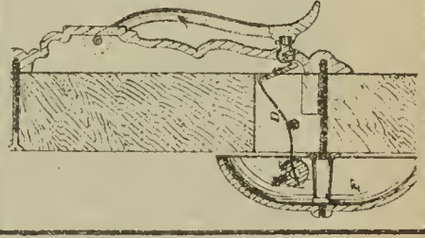
103,444, MICHAEL F. GERAGHTY. SEWING-MACHINE.



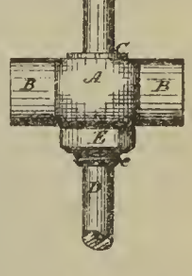
103,445, JOHN JEFFERSON GLOVER. PICTURE-POISE.



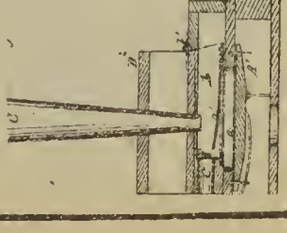
103,446, E. H. GOLDMAN. DOOR-BELLS. DAVID W. HISEY.



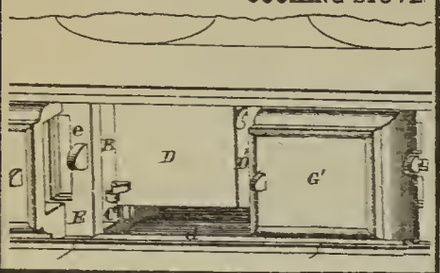
103,447, ADAM GOOD, JR. ADJUSTABLE CONNECTIONS OF SUCKER-RODS TO WALKING-BEAMS.



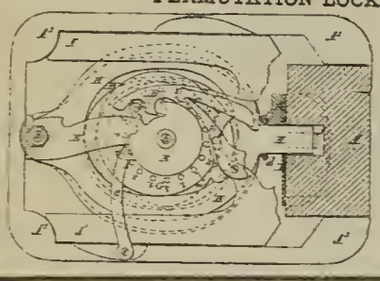
103,448, HORATIO N. GOODMAN. ORGANS.



103,449. JAMES GREER.
RUFUS J. KING.
COOKING-STOVE.

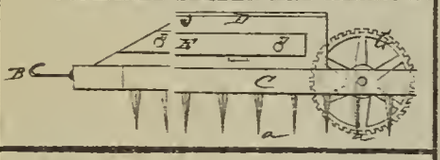


103,450. H. GROSS.
PERMUTATION LOCKS.

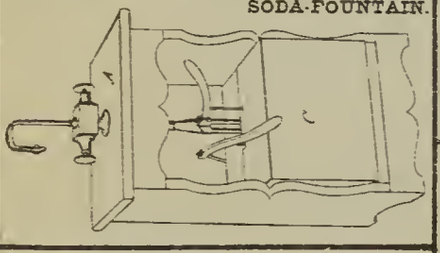


103,451, R. H. GUILFORD. BUTTONS.

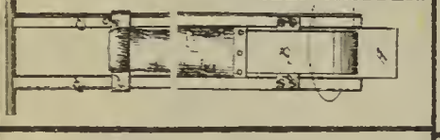
103,452, JOHN E. HALSTED.
COLOPE C. HALSTED.
COMBINED SEEDER AND HARROW.



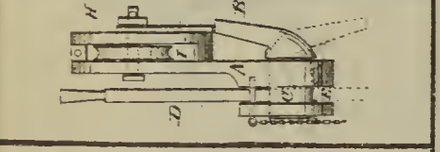
103,453, NATHAN T. HAMILTON.
SODA-FOUNTAIN.



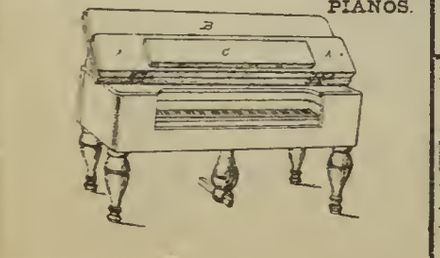
103,454, J. F. HANSON.
JNO. E. CALLAWAY
SEED-DROPPER.



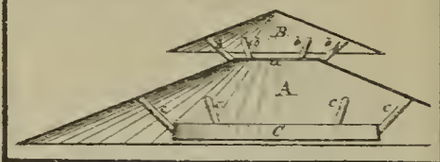
103,455, THOMAS J. HARTE.
DETACHING-BLOCKS.



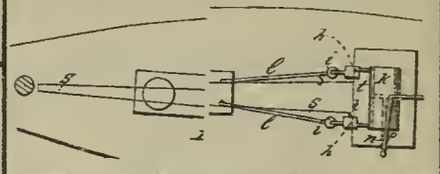
103,456, CHARLES HATTERSLEY.
PIANOS.



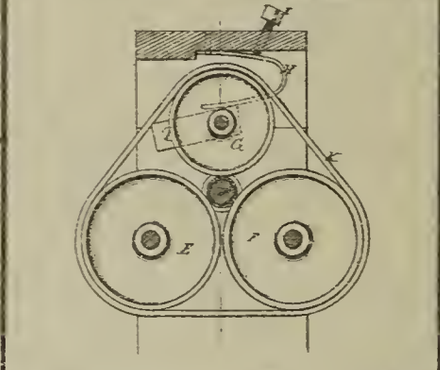
103,457, JOSEPH M. HEARD. HATS.



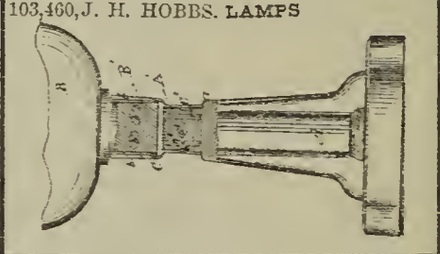
103,458, HORATIO F. HICKS.
STEAM STEERING APPARATUS.



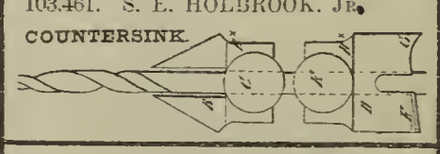
103,459, GILBERT P. HILL.
EDWARD C. DOW.
SAWING-MACHINE.



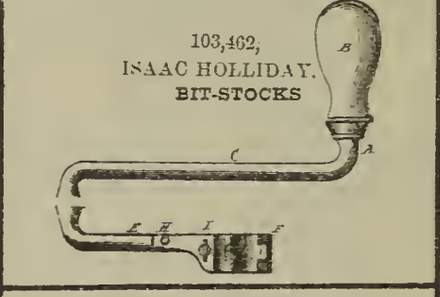
103,460, J. H. HOBBS. LAMPS



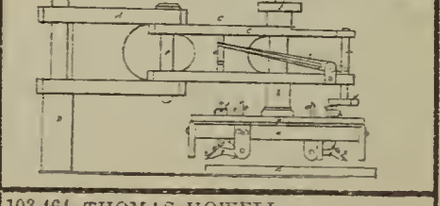
103,461. S. E. HOLBROOK. JR.
COUNTERSINK.



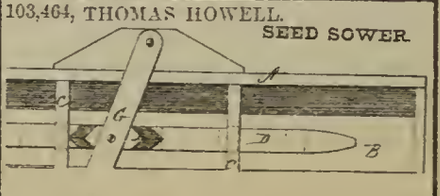
103,462,
ISAAC HOLLIDAY.
BIT-STOCKS



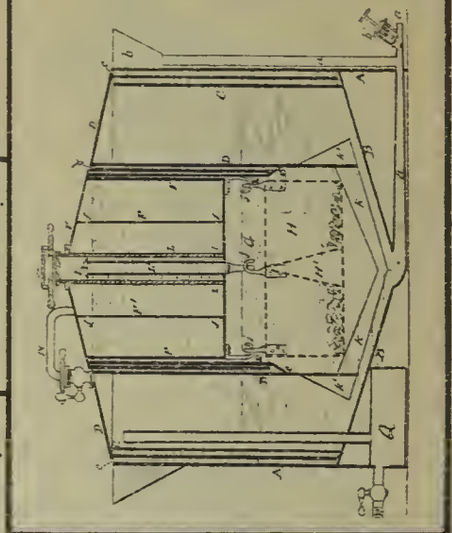
103,463, CHARLES HOLMES.
FRANK E. HOLMES.
MACHINERY FOR
SCOURING OR DRESSING HIDES.



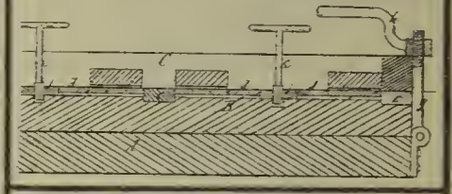
103,464, THOMAS HOWELL.
SEED SOWER.



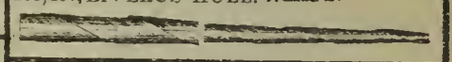
103,465. HENRY I. HOYT.
MACHINES FOR GENERATING AND
CARBURETING HYDROGEN GAS.



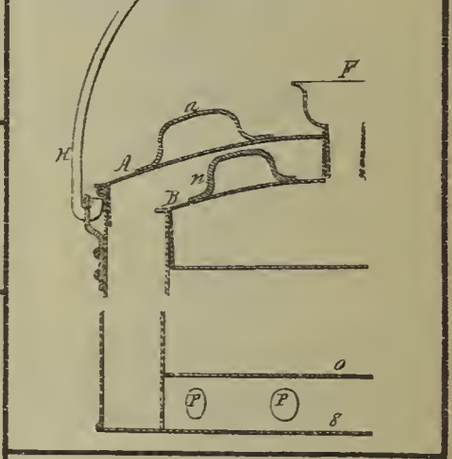
103,466, PHILIP HUFELAND.
STRIP-PRESS.



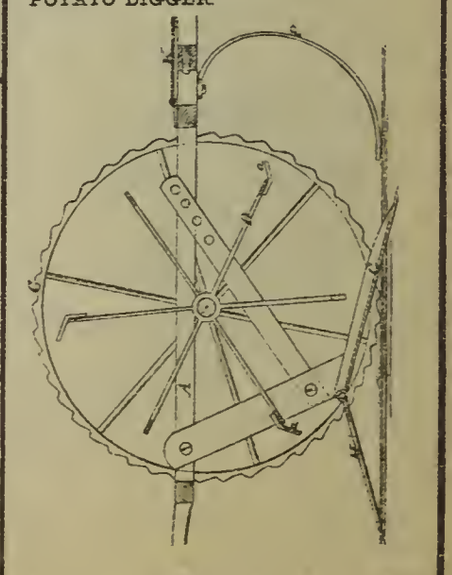
103,467, LIVERUS HULL. WHIPS.



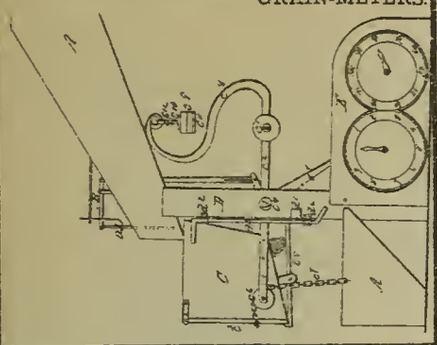
103,468,
MARTIN VAN B. JOHNSON.
COOKING VESSEL.



103,469. M. JOHNSON.
POTATO DIGGER.

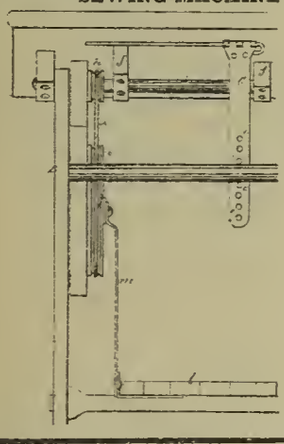


103,470, JOHN T. KEELING.
GRAIN-METERS.

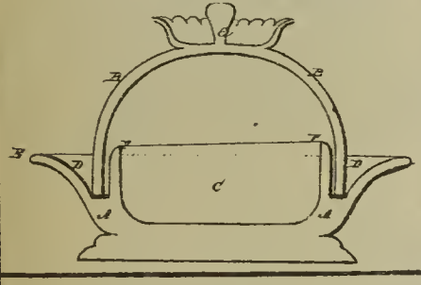


103,471. J. N. KENDALL.
TRANSFERRING AND LOOP RETAINING COMB FOR KNITTING MACHINES.

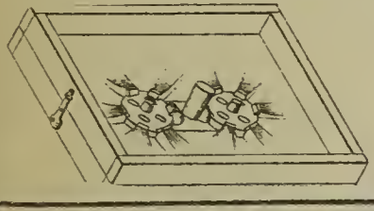
103,472. MICHEAL J. KERIGAN.
SEWING-MACHINE TABLE.



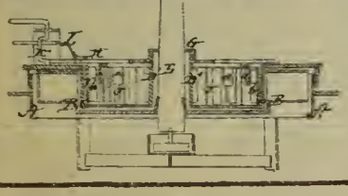
103,473, LEOPOLD KLEE.
ANDREW PATTERSON.
REFRIGERATING VESSEL.



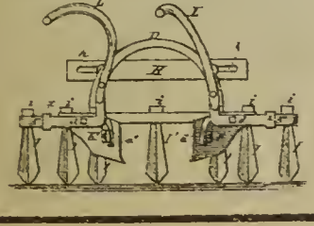
103,474, VICTOR KNECHT.
PULLEY-SHEAVE.



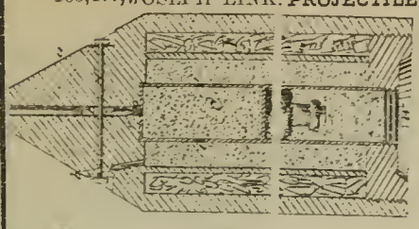
103,475, JESSE KRALL. WATER-WHEELS.



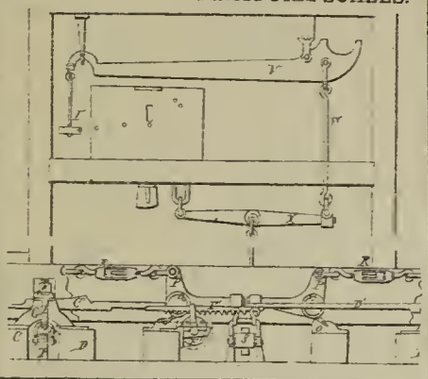
103,476, HUGH LAIRD. CULTIVATOR.



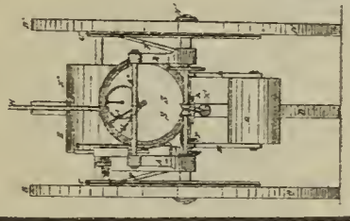
103,477, JOSEPH LINK. PROJECTILES.



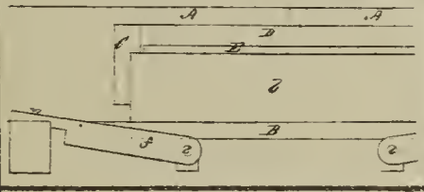
103,478, CHESTER C. LYMAN.
PLATFORM-SCALES.



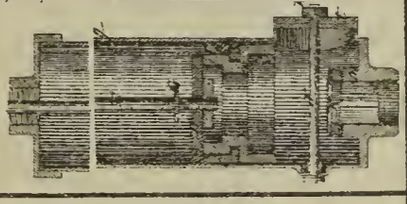
103,479, HENRY MANGER.
SELF-RECORDING SURVEYING-MACHINE.



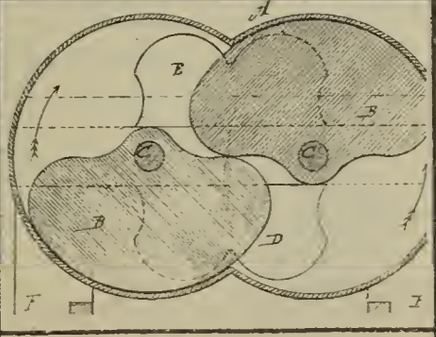
103,480, THOS. B. McCONAUGHEY.
JAMES ADAMS.
RAILWAY RAIL-JOINT FASTENING.



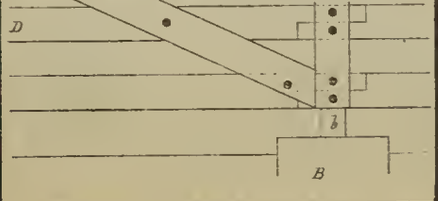
103,481, A. Y. McDONALD. PUMPS.



103,482, HENRY C. McILWAIN.
ALONZO BRUMFIEL.
ROTARY BLOWERS.



103,483, JAMES M. McKEE. FENCES.



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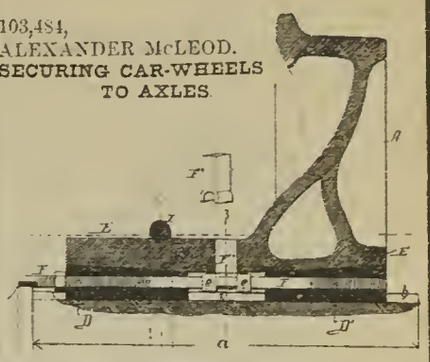
ALEXANDER McLEOD.
SECURING CAR-WHEELS TO AXLES.



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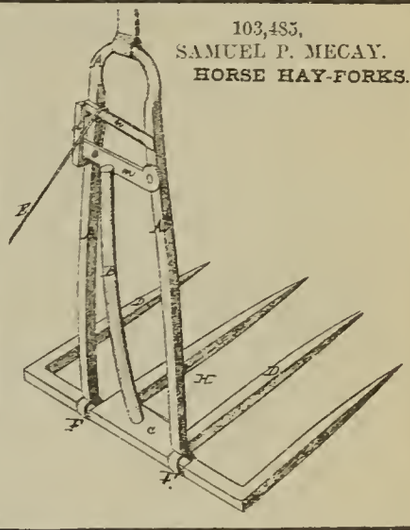
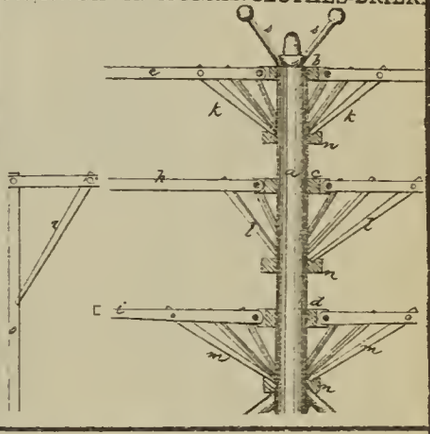
SAMUEL P. MECAY.
HORSE HAY-FORKS.

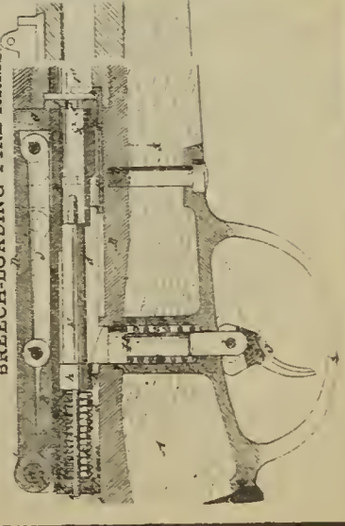


103,486. DAVID MORRIS. CLOTHES-DRIER.

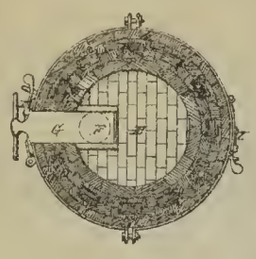


103,487, I. MOSES. TAILORS' MEASURES.

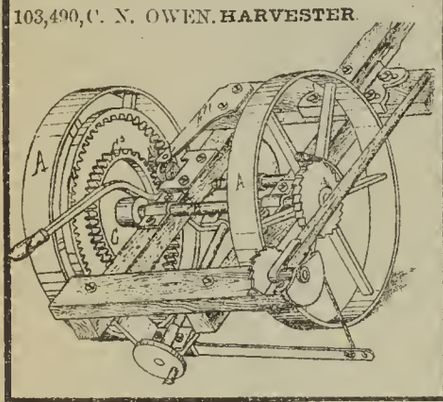
103,488, AL. MULLER.
BREECH-LOADING FIRE-ARMS.



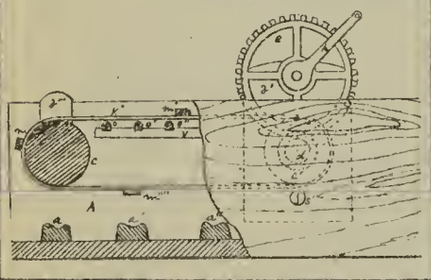
103,489. GEORGE NOCK.
FURNACES FOR PRODUCING "SPONGE" FROM IRON-ORE.



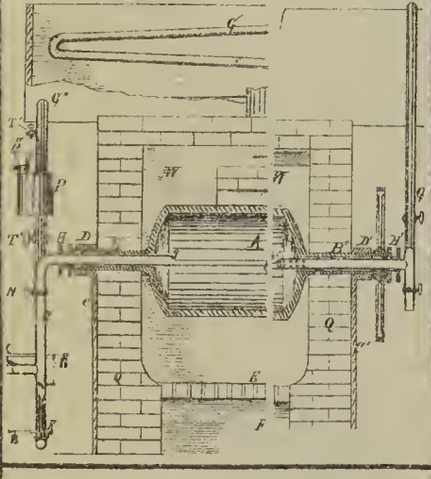
103,490, C. N. OWEN. HARVESTER.



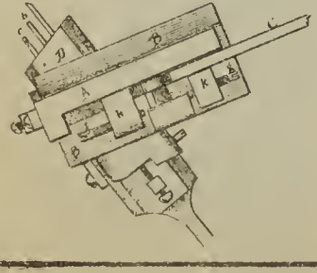
103,491. JOHN B. PADON.
WASHING-MACHINE.



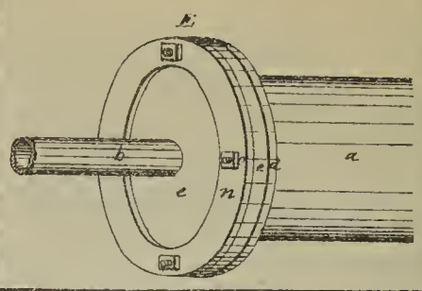
103,492, JAS. W. PAIGE.
DEXTER REYNOLDS.
BOILER FOR STEAM HEATERS.



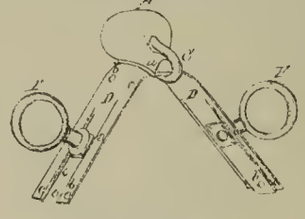
103,493, A. S. PARKS. TOOLS FOR FITTING BOTTOMS TO FRUIT-BASKETS.



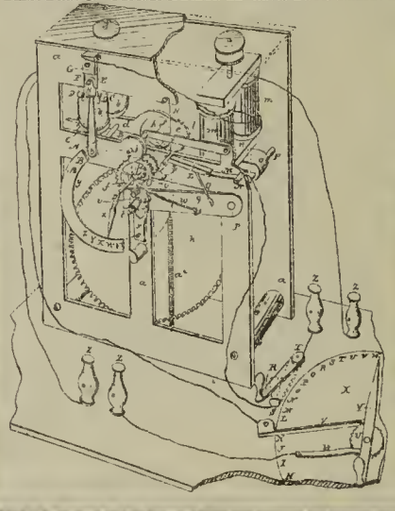
103,494. CHARLES A. PEAVEY.
CONNECTING-PIPE FOR LOCOMOTIVES.



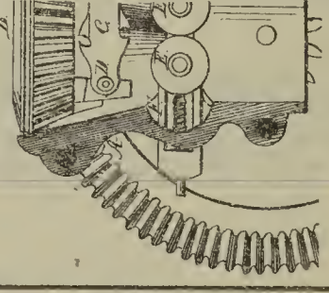
103,495, GEO. PENNOYER.
HARNESS SADDLE-TREE.



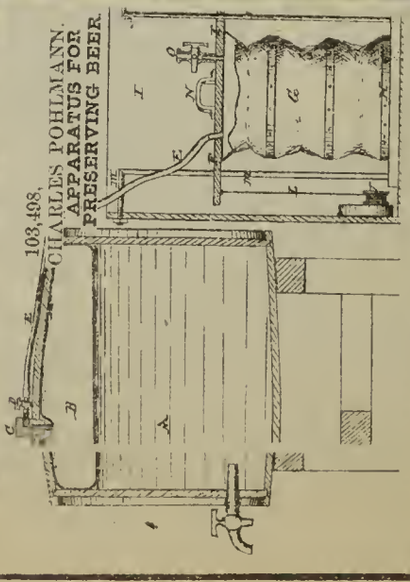
103,496. W. P. PHELPS AND W. J. PHILIPS.
PRINTING TELEGRAPH INSTRUMENT.



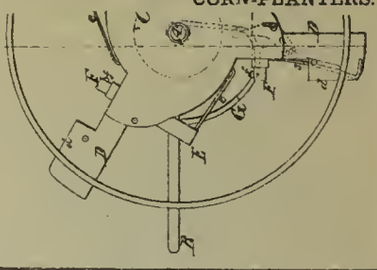
103,497, CHARLES H. PICKERING.
HAND CORN-SHELLERS.



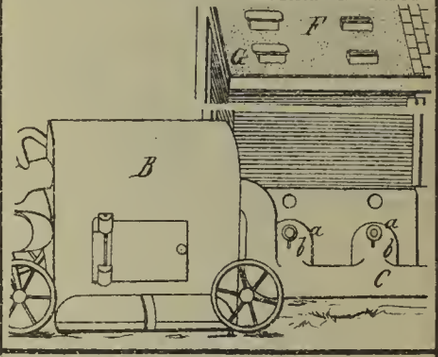
103,498, CHARLES POHLMANN.
APPARATUS FOR PRESERVING BEER.



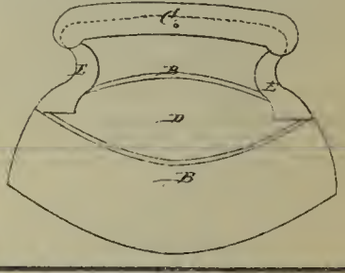
103,499, BENJAMIN PORTER.
CORN-PLANTERS.



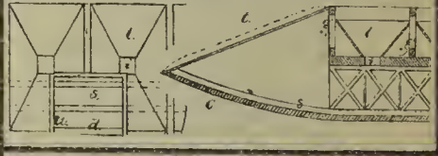
103,500, NATHANIEL F. POTTER.
KILN FOR DRYING AND BURNING BRICK.



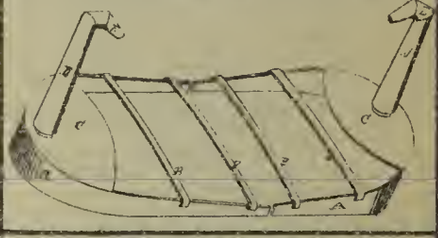
103,501, MARY F. POTTS. SAD-IRON.



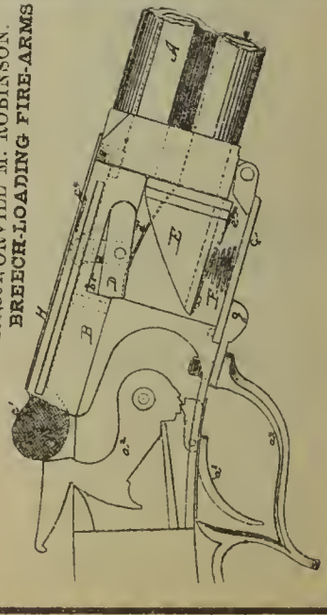
103,502, J. A. PRESTON. COAL-BARGES.



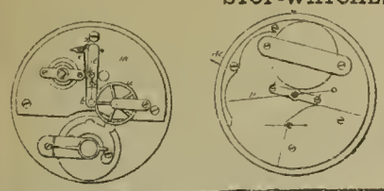
103,503, ADONIJAH H. PROCTOR.
WASH-BOILER ATTACHMENT



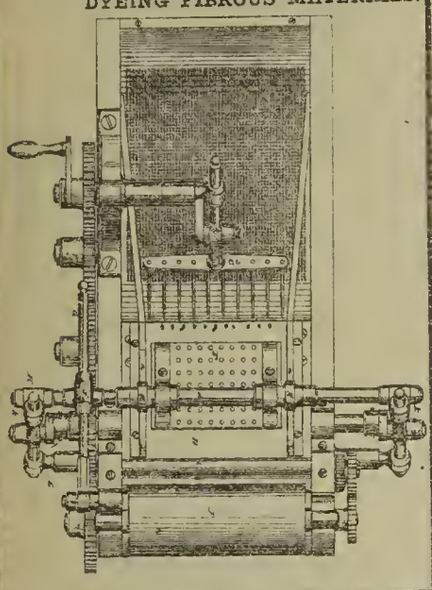
103,504, ORVILL M. ROBINSON.
BREECH-LOADING FIRE-ARMS



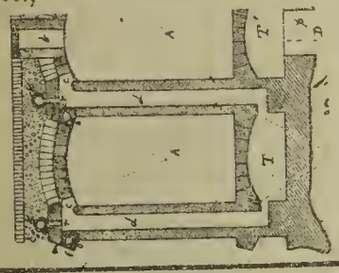
103,505, FREDERIC ROTIG.
STOP-WATCHES.



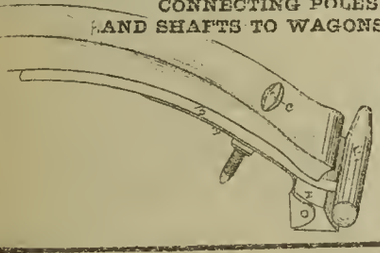
103,506, CHARLES G. SARGENT.
MACHINERY FOR WASHING AND DYEING FIBROUS MATERIALS.



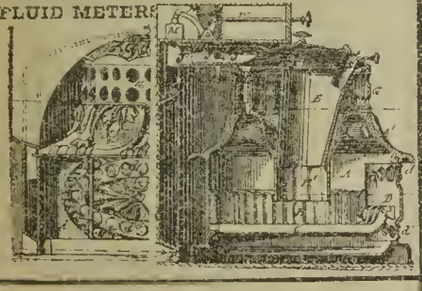
103,507, LEWIS SCHANTL COKE-OVENS.



103,508, MATHIAS SCHOU, JACKS FOR CONNECTING POLES AND SHAFTS TO WAGONS.



103,509, H. C. SERGEANT.
FLUID METERS.

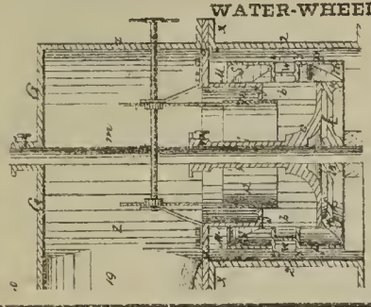


103,510, S. B. SEXTON.
BASE-BURNING FIRE-PLACE STOVE.

103,511, ALFRED B. SHEAFFER.
BEDSTEAD-FASTENER.

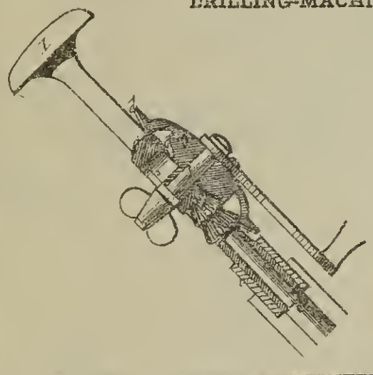
103,512, HARDY L. SHEFFER.
MEDICAL COMPOUND FOR THE CURE OF DIPHTHERIA.

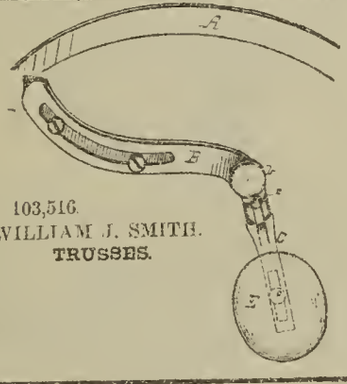
103,513, H. W. SHIPLEY.
WATER-WHEELS.



103,514,
WM. H. SHOOK.
PROJECTILES.

103,515, JAMES SMITH.
DRILLING-MACHINE.

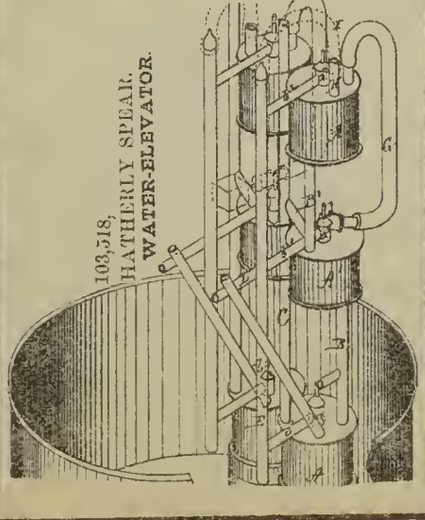




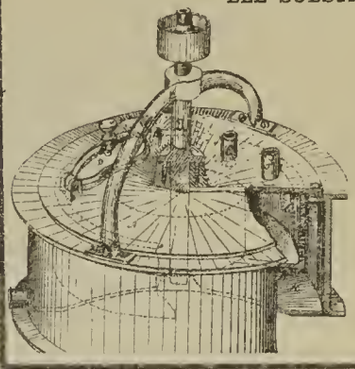
103,516.
WILLIAM J. SMITH.
TRUSSES.

103,517, S. SORENSON.
PREPARATION OF ARTIFICIAL LEATHER FROM SCRAPLEATHER, &c.

103,518,
HATHERLY SPEAR.
WATER-ELEVATOR.

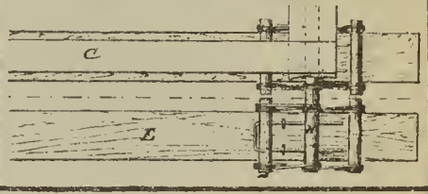


103,519, HENRY A. STEARNS.
APPARATUS FOR EXTRACTING OIL FROM ANIMAL AND VEGETABLE SUBSTANCES.

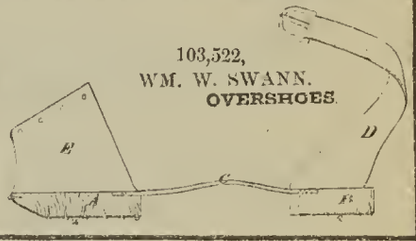


103,520, CHARLES STEPHENS.
MANUFACTURE OF ARTIFICIAL STONE.

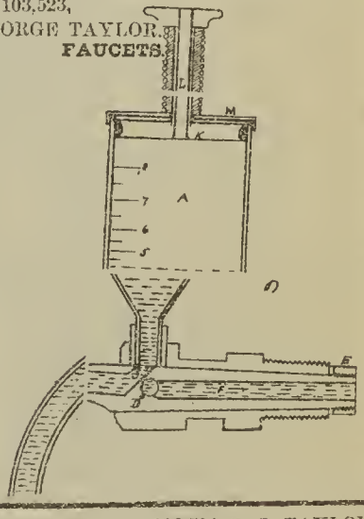
103,521, CYRUS S. STEVENS.
SPRING-BED BOTTOM.



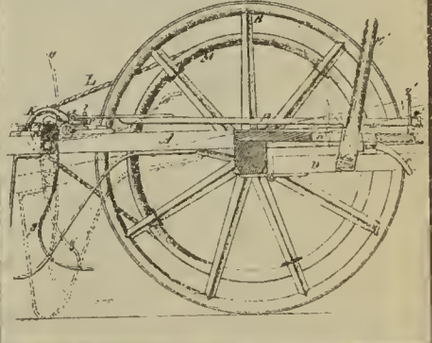
103,522,
WM. W. SWANN.
OVERSHOES.



103,523,
GEORGE TAYLOR.
FAUCETS.



103,524, S. J. TAYLOR.
COMBINED HAY-RAKE AND TEDDER



103,525,
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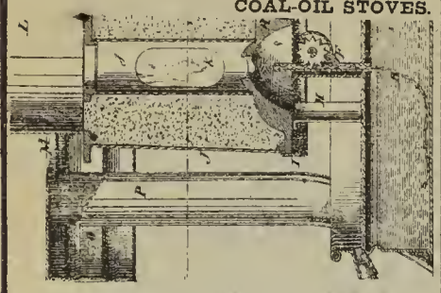
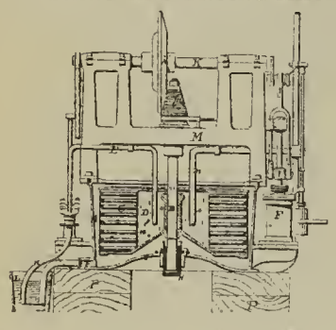
PHILIPP MEYER.
PIANO-LOCKS.

103,526, JAMES H. THORP.
COAL-OIL STOVES.



103,527, HIRAM TUCKER.
SURFACING CAST-IRON.

103,528, W. P. UHLINGER.
WASHING AND DRYING-MACHINE.



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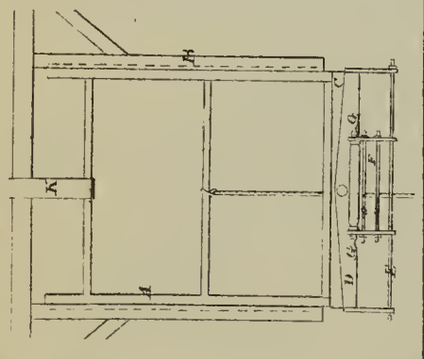
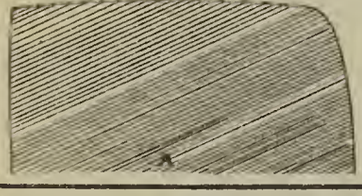
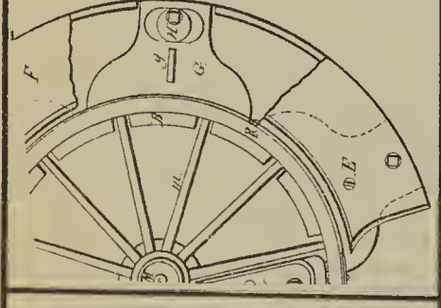
BE. L. CHURCHILL.
SAW-FILING MACHINES.



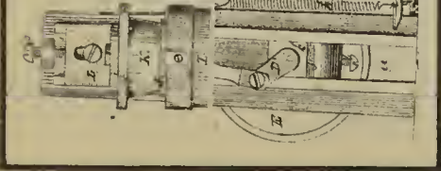
103,530, EUGENE WARD. MANUFACTURE OF WINKERS FOR HARNESS-BRIDLES.



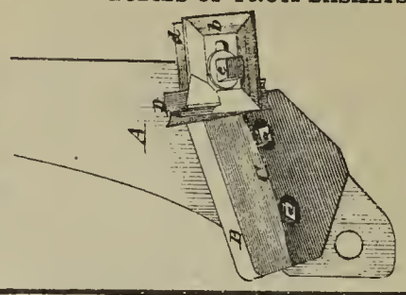
103,531, W. F. WATERS.
MACHINES FOR PUTTING TOGETHER AND TIRING WHEELS.



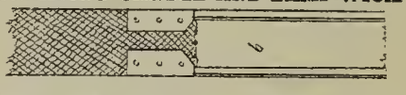
103,532, BAXTER D. WHITNEY.
MACHINES FOR BOTTOMING FRUIT-BASKETS.

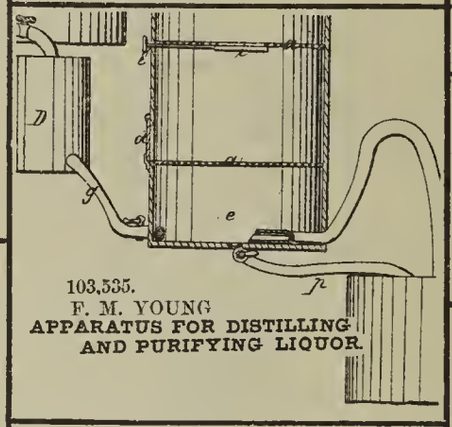


103,533, BAXTER D WHITNEY.
CUTTERS FOR CUTTING THE BODIES OF FRUIT-BASKETS.



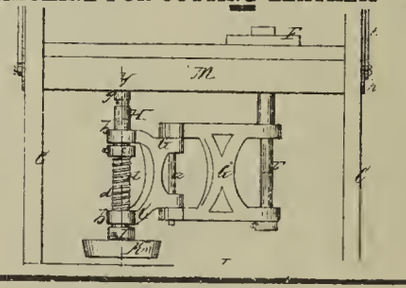
103,534, THOMAS SCOTT WILLIAMS.
FREEMAN AUGUSTUS TABER.
TREATING CANDLE AND LAMP-WICK



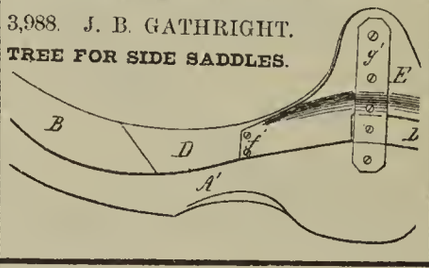


103,535.
F. M. YOUNG
APPARATUS FOR DISTILLING AND PURIFYING LIQUOR.

3,987. C. F. DAVIS, T. COREY, S. AND R. BOYD.
MACHINE FOR CUTTING LEATHER.

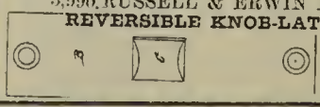


3,988. J. B. GATHRIGHT.
TREE FOR SIDE SADDLES.

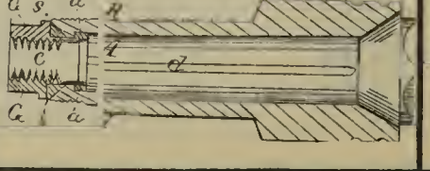


3,989. S. B. HEWETT, JR., AND L. P. JONES.
COATING IRON AND STEEL.

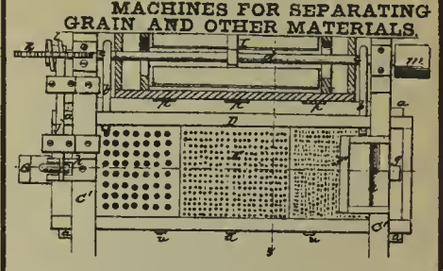
3,990. RUSSELL & ERWIN MF'G CO.
REVERSIBLE KNOB-LATCHES.



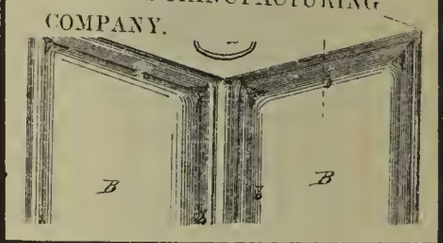
3,991. ALFRED E. SMITH.
CARRIAGE-AXLES.



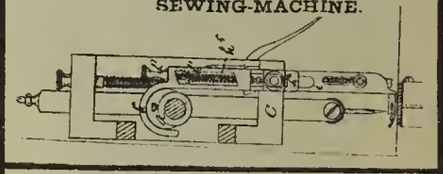
3,992. WILLIAM W. STOLL.
MACHINES FOR SEPARATING GRAIN AND OTHER MATERIALS.



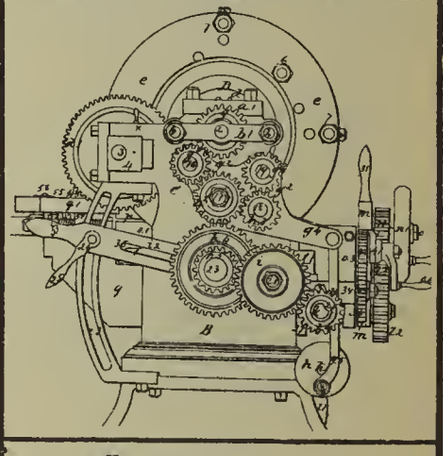
3,993. CAN FOR PAINT, FRUIT, &c
THE DEVOE MANUFACTURING COMPANY.



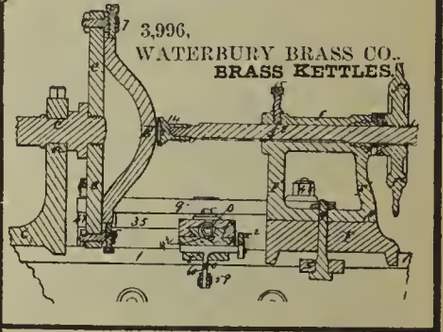
3,994.
THE GLOBE SEWING-MACHINE CO.
SEWING-MACHINE.



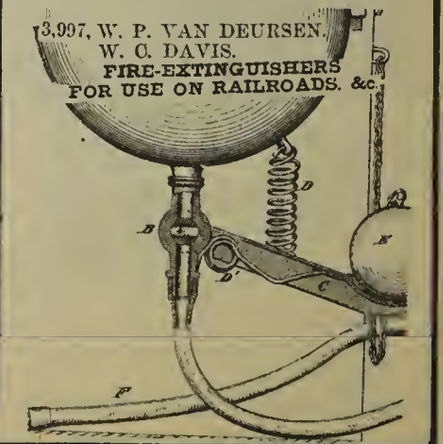
3,995. WATERBURY BRASS CO.
MACHINE FOR MAKING KETTLES.



3,996.
WATERBURY BRASS CO.
BRASS KETTLES.



3,997. W. P. VAN DEURSEN.
W. C. DAVIS.
FIRE-EXTINGUISHERS FOR USE ON RAILROADS. &c.



ILLUSTRATIONS OF PATENTS

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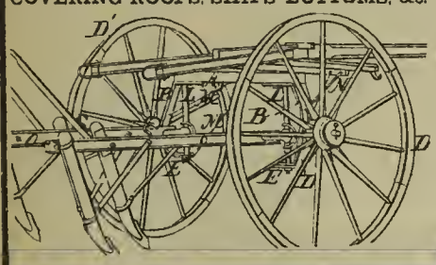
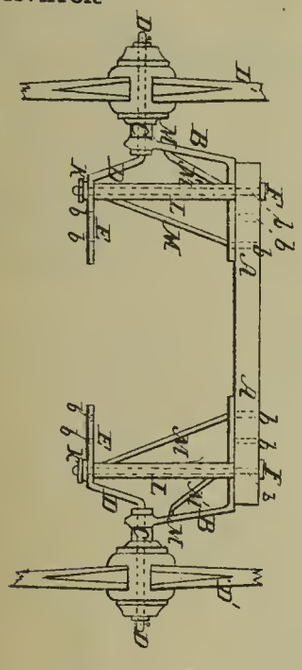
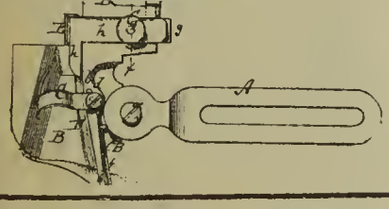
103,536, THOMAS R. ABBOTT.
COMPOSITION FELTING FOR COVERING ROOFS, SHIPS' BOTTOMS, &c.



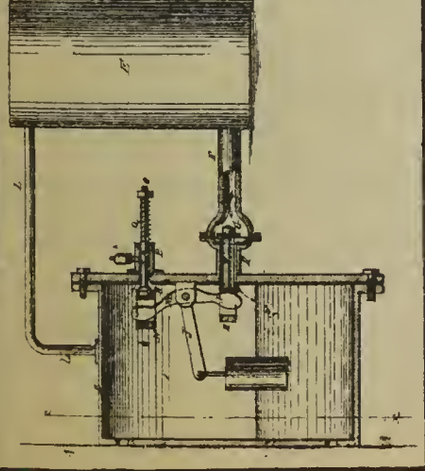
103,537. H. A. ADAMS.
CULTIVATOR.



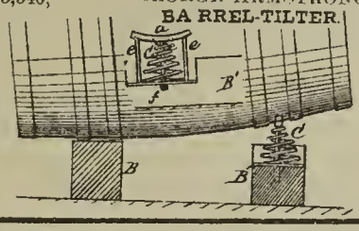
103,538, L. ANDERSON.
BINDING-ATTACHMENT FOR SEWING-MACHINES.



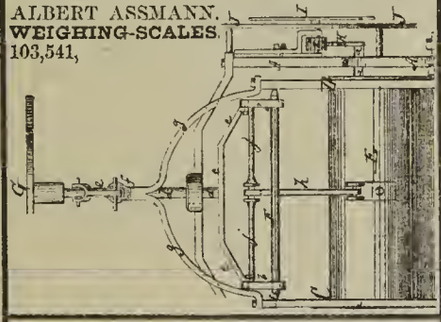
103,539. VALERIUS D. ANDERSON.
BOILER-FEEDER AND LOW-WATER ALARM



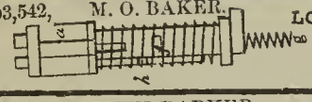
103,540, GEORGE ARMSTRONG
BARREL-TILTER.



ALBERT ASSMANN.
WEIGHING-SCALES.
103,541,



103,542, M. O. BAKER. LOCKS.



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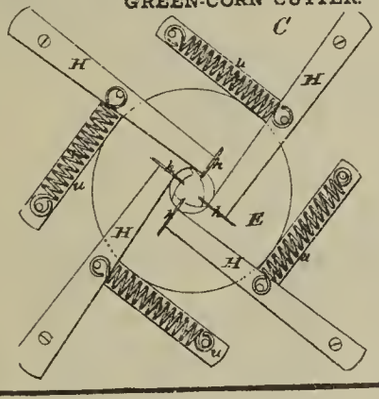
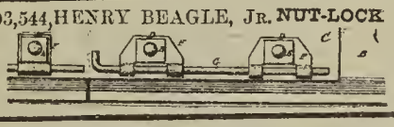
GREEN-CORN CUTTER.

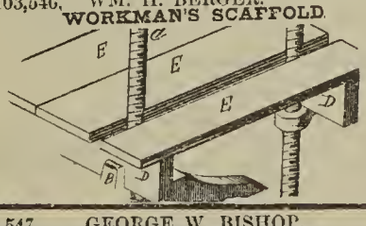


103,544, HENRY BEAGLE, JR. NUT-LOCK

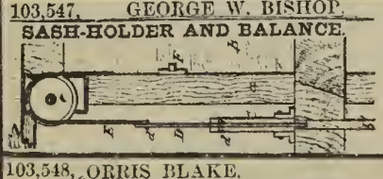


103,545. PHILIP BECKER.
MEDICAL COMPOUND.

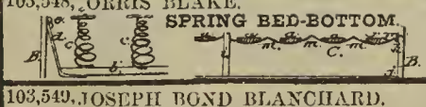
103,546, WM. H. BERGER.
WORKMAN'S SCAFFOLD.



103,547, GEORGE W. BISHOP.
SASH-HOLDER AND BALANCE.



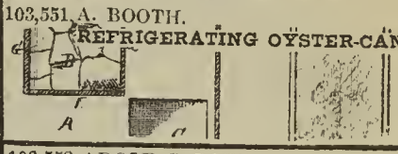
103,548, ORRIS BLAKE.
SPRING BED-BOTTOM.



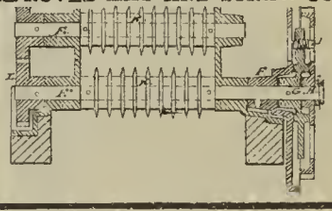
103,549, JOSEPH BOND BLANCHARD.
NEEDLE FOR SEWING-MACHINE.

103,550, SIMEON R. BOLTON.
TIGHTENING WHEEL-TIRES

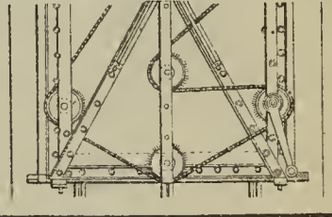
103,551, A. BOOTH.
REFRIGERATING OYSTER-CAN.



103,552, ADOLF C. BOTH.
IMPROVED HAY AND STRAW-CUTTER

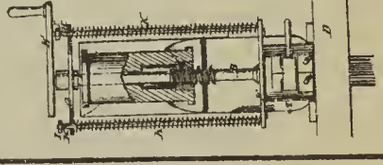


103,553 G. C. BOUZIAT.
MODE AND MATERIAL FOR CONSTRUCTING FLOORS, CEILINGS

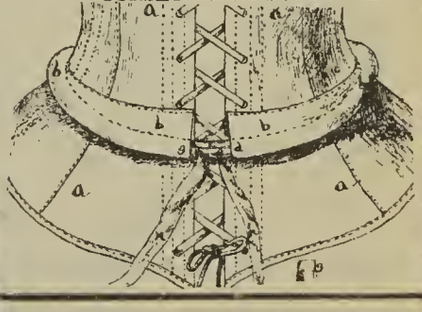


103,554, OTIS E. BOWEN.
COMPOSITION FOR COATING SHINGLES AND CLAP-BOARDS.

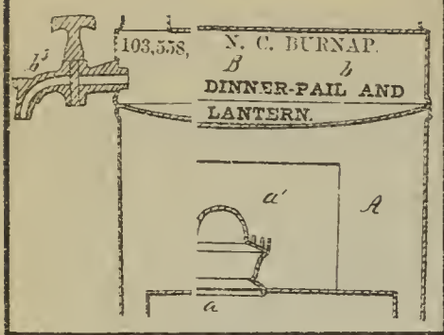
103,555, JAMES M. BROOKFIELD.
MODE OF FORMING INSULATORS.



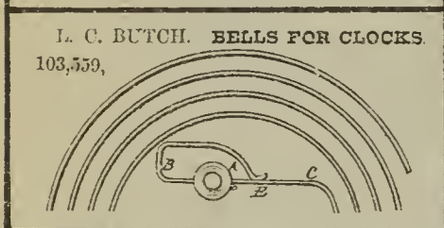
103,556, J. W. BROOKS.
CORSET SKIRT-SUPPORTERS.



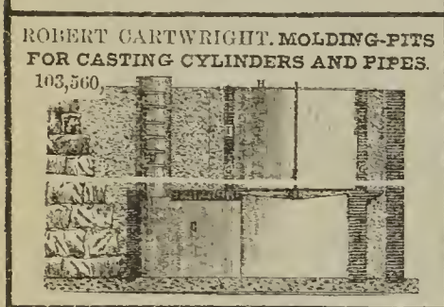
B. R. BROWN.
JAMES TOONE, JR.
HAY AND COTTON-PRESSES.
103,557.



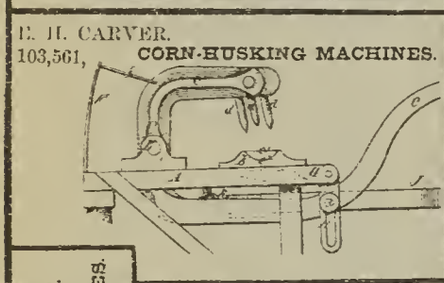
103,558, N. C. BURNAP.
DINNER-PAIL AND LANTERN.



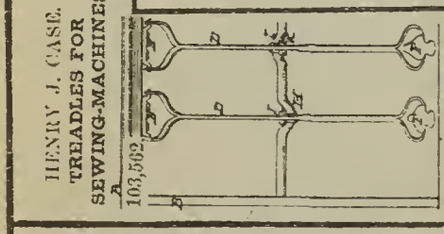
L. C. BUTCH. BELLS FOR CLOCKS.
103,559,



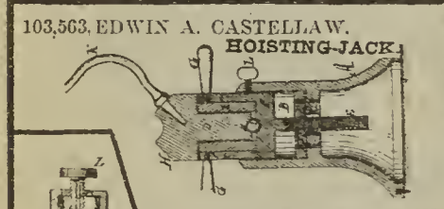
ROBERT CARTWRIGHT. MOLDING-PITS FOR CASTING CYLINDERS AND PIPES.
103,560,



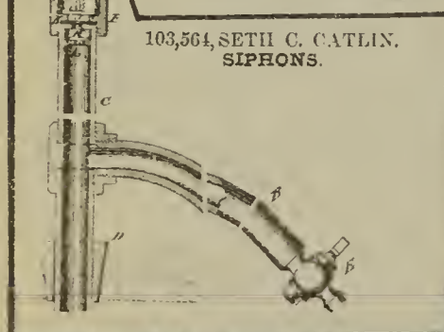
E. H. CARVER.
103,561, CORN-HUSKING MACHINES.



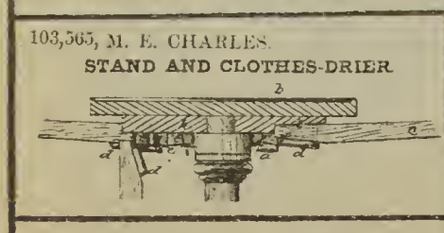
HENRY J. CASE.
TREADLES FOR SEWING-MACHINES.
103,562.



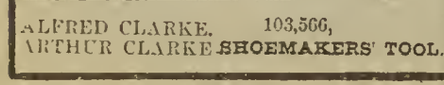
103,563, EDWIN A. CASTELLAW.
HOISTING-JACK.



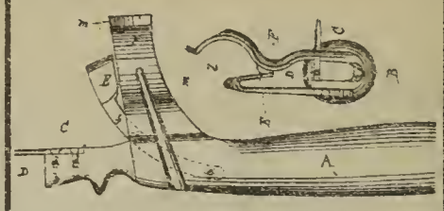
103,564, SETH C. CATLIN.
SIPHONS.



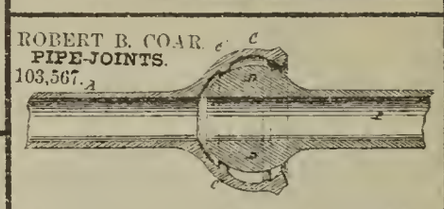
103,565, M. E. CHARLES.
STAND AND CLOTHES-DRIER.



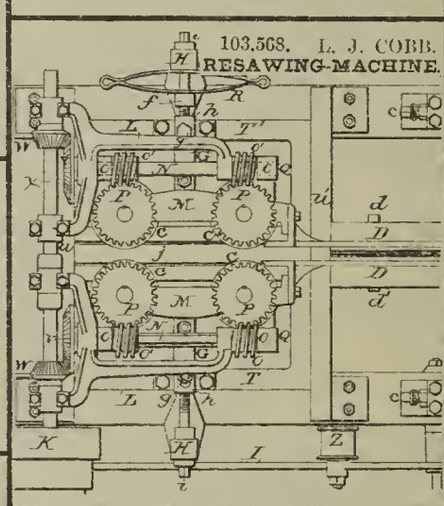
ALFRED CLARKE. 103,566,
ARTHUR CLARKE. SHOEMAKERS' TOOL.



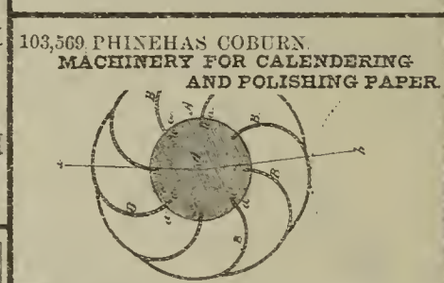
ROBERT B. COAR.
PIPE-JOINTS.
103,567.



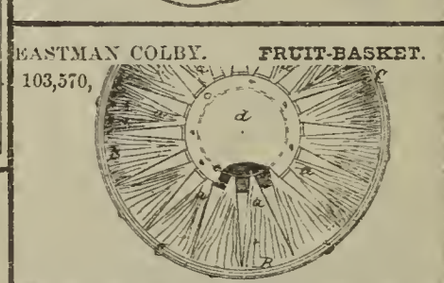
103,568. L. J. COBB.
RESAWING-MACHINE.



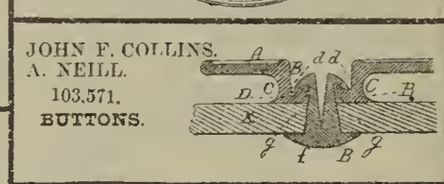
103,569 PHINEHAS COBURN.
MACHINERY FOR CALENDERING AND POLISHING PAPER.



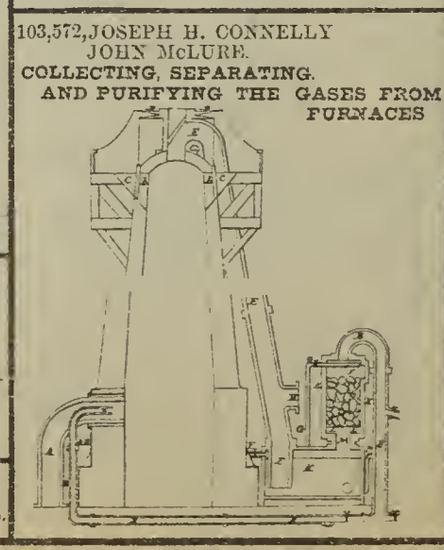
EASTMAN COLBY. FRUIT-BASKET.
103,570,



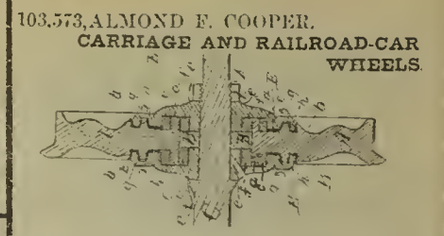
JOHN F. COLLINS.
A. NEILL.
103,571.
BUTTONS.



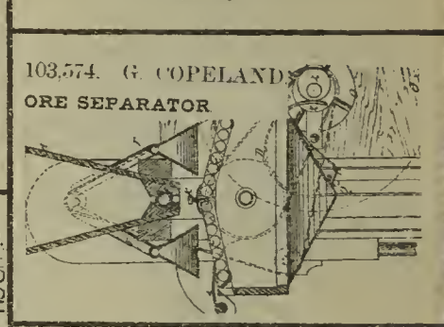
103,572, JOSEPH H. CONNELLY
JOHN McLURE.
COLLECTING, SEPARATING, AND PURIFYING THE GASES FROM FURNACES



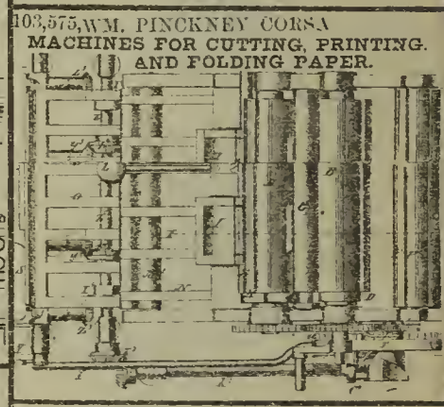
103,573, ALMOND F. COOPER.
CARRIAGE AND RAILROAD-CAR WHEELS.



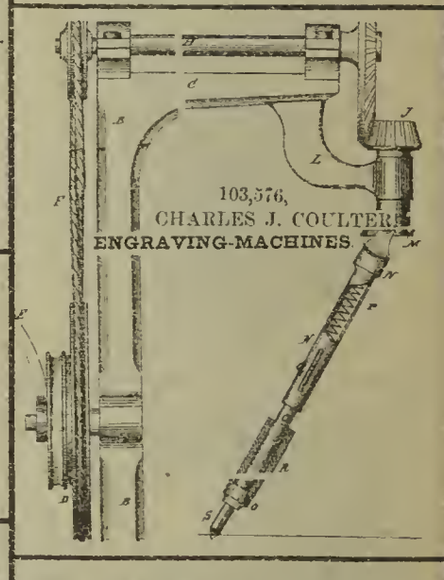
103,574. G. COPELAND.
ORE SEPARATOR.



103,575, WM. PINCKNEY CORSA
MACHINES FOR CUTTING, PRINTING, AND FOLDING PAPER.

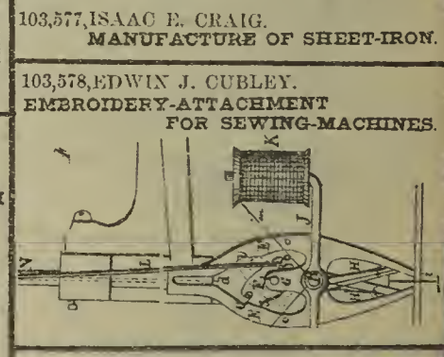


103,576,
CHARLES J. COULTER.
ENGRAVING-MACHINES.

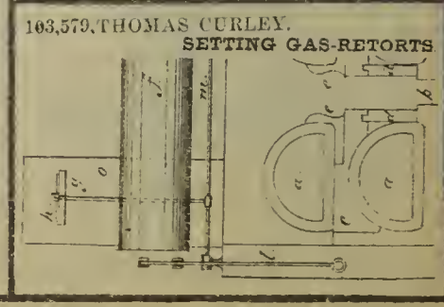


103,577, ISAAC E. CRAIG.
MANUFACTURE OF SHEET-IRON.

103,578, EDWIN J. CUBLEY.
EMBROIDERY-ATTACHMENT FOR SEWING-MACHINES.



103,579, THOMAS CURLEY.
SETTING GAS-RETORTS.

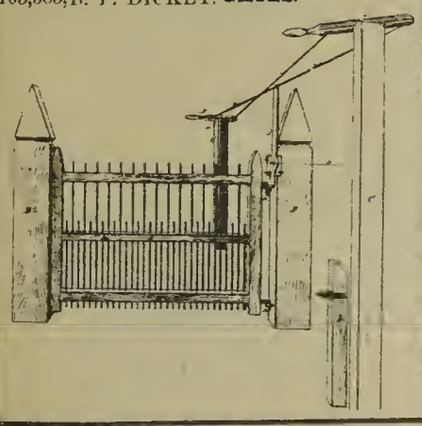


103,580, E. J. DE SMEDT.
MANUFACTURE OF ARTIFICIAL FUEL.

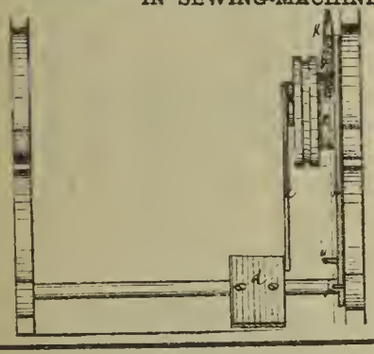
103,581. E. J. DE SMEDT.
LAYING ASPHALT OR CONCRETE PAVEMENT ON ROADS.

103,582, E. J. DE SMEDT.
ASPHALT ROADS AND PAVEMENTS.

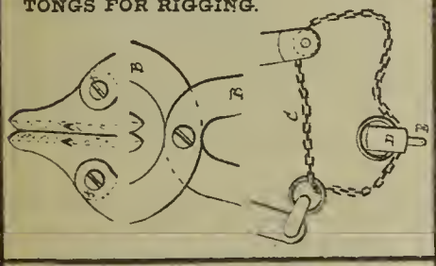
103,583, B. F. DICKEY. GATES.



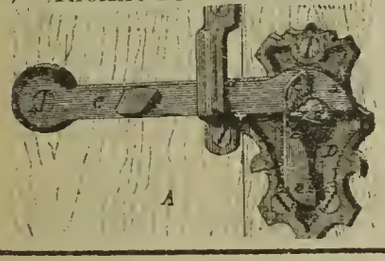
103,584, DAVID A. DICKINSON.
PREVENTING REVERSE MOTION IN SEWING-MACHINES.



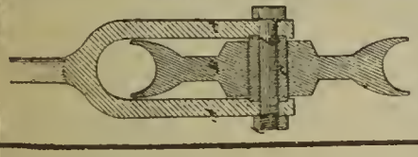
103,585, GEORGE DOHN.
TONGS FOR RIGGING.



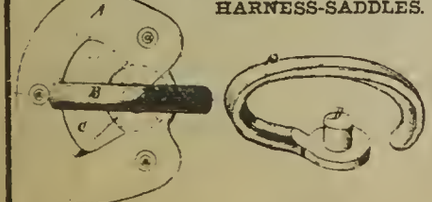
103,586, THOMAS DOLAN. LATCHES.

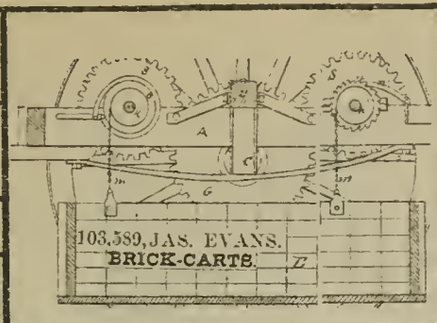


103,587, WILLIAM W. EASTMAN.
BEARING FOR SHEAVES.



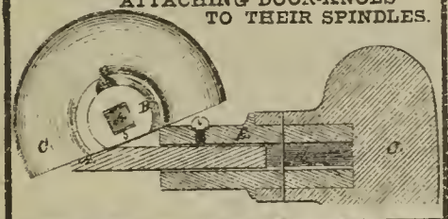
103,588, GUSTAVUS ELBEL.
REVOLVING BACK-BAND HOOK FOR HARNESS-SADDLES.





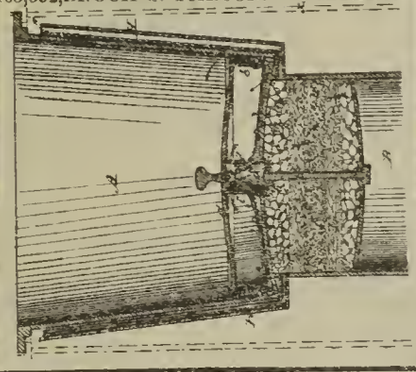
103,589, JAS. EVANS.
BRICK-CARTS.

103,590, JOHN EVANS.
ATTACHING DOOR-KNOBS TO THEIR SPINDLES.



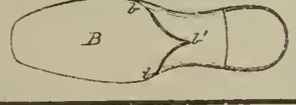
103,591, FRANCOIS FABRE.
MANUFACTURE OF BRICKS, TILES, &c., FROM SLAG.

103,592, ENOCH S. FARSON. FILTERS.

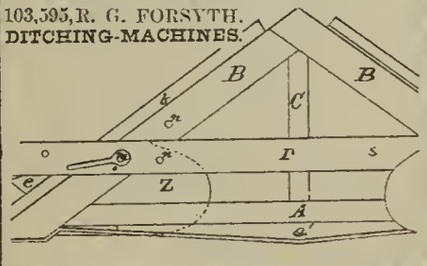


103,593, AND. C. FLINT. READING-STAND.

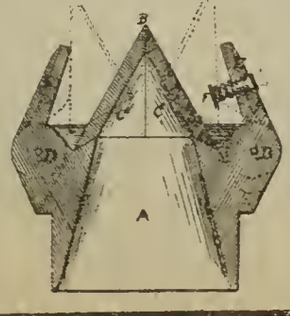
103,594, FRANCIS FLYNN.
TAP FOR RUBBER BOOTS.



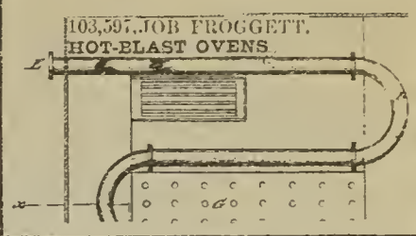
103,595, R. G. FORSYTH.
DITCHING-MACHINES.



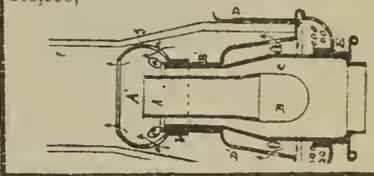
103,596, CHARLES H. FRISBIE.
EXHAUST-NOZZLE.



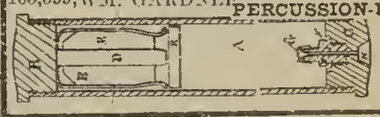
103,597, JOB FROGGETT.
HOT-BLAST OVENS.



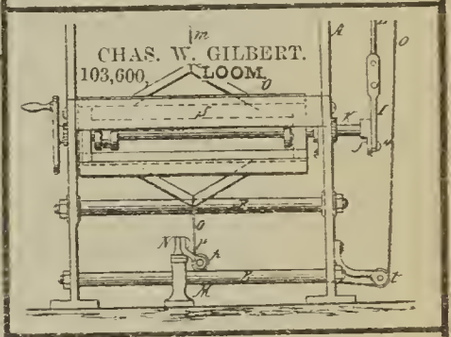
103,598, J. B. FULLER. LAMP-BURNERS.



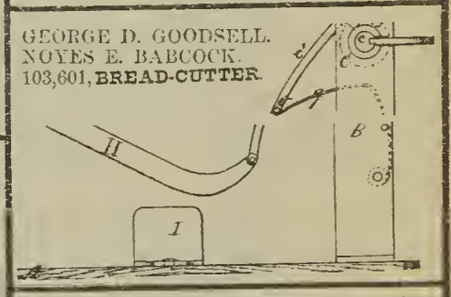
103,599, WM. GARDNER. PERCUSSION-FUSE.



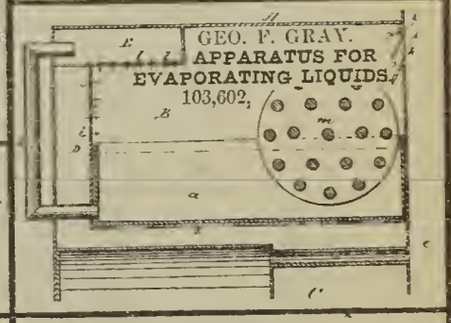
CHAS. W. GILBERT.
103,600, LOOM.



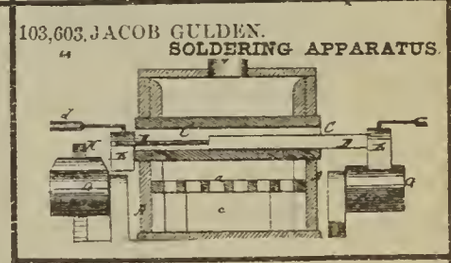
GEORGE D. GOODSELL.
NOYES E. BABCOCK.
103,601, BREAD-CUTTER.



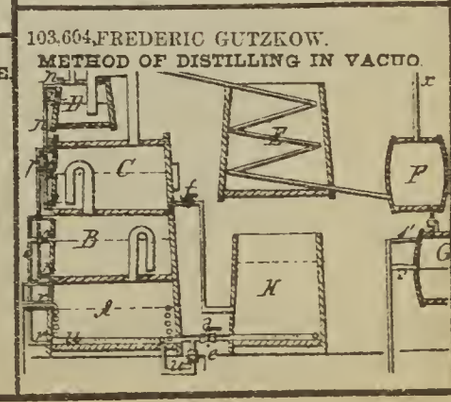
GEO. F. GRAY.
APPARATUS FOR EVAPORATING LIQUIDS.
103,602.



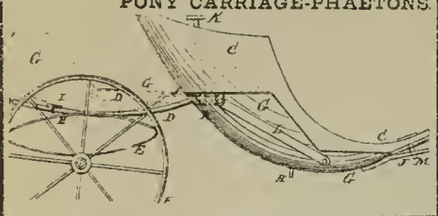
103,603, JACOB GULDEN.
SOLDERING APPARATUS.



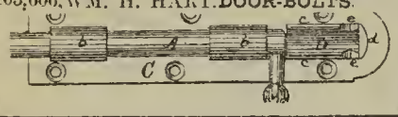
103,604, FREDERIC GUTZKOW.
METHOD OF DISTILLING IN VACUO.



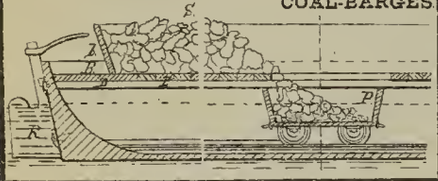
103,605, JOHN C. HAM.
PONY CARRIAGE-PHAETONS.



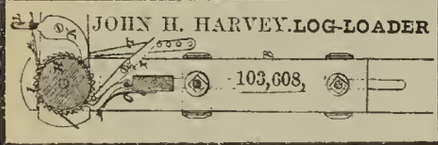
103,606, WM. H. HART. DOOR-BOLTS.



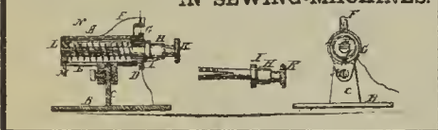
103,607, ROGER HARTLEY.
COAL-BARGES.



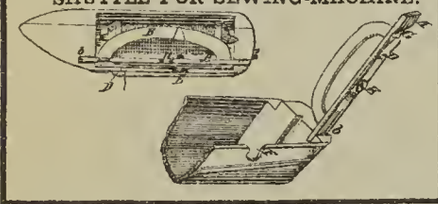
JOHN H. HARVEY. LOG-LOADER
103,608,



103,609, M. C. HAWKINS.
TENSION DEVICE FOR NEEDLE-THREAD IN SEWING-MACHINES.

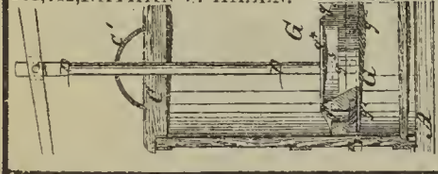


103,610, M. C. HAWKINS
SHUTTLE FOR SEWING-MACHINE.

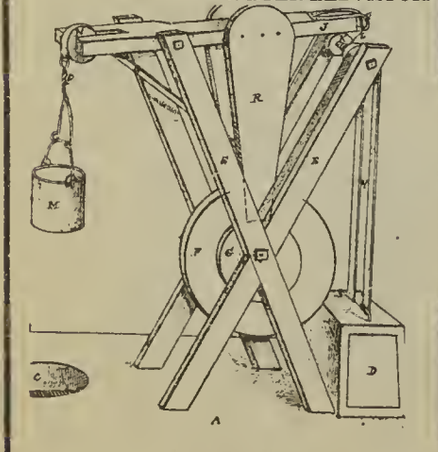


103,611, M. C. HAWKINS.
HEMMER FOR SEWING-MACHINE.

103,612, NATHAN S. HAZEN. CHURNS.

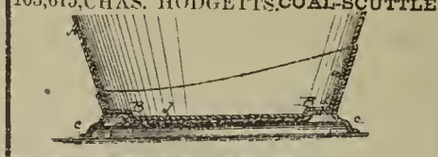


103,613, MORRISON HEADY.
WATER-ELEVATOR.

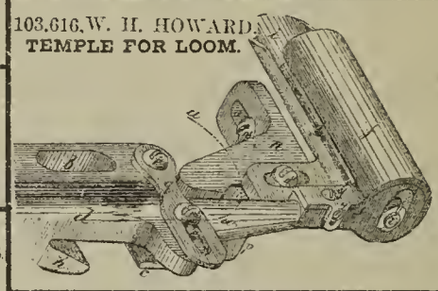


103,614, FRANCIS M. HILLSTREAM.
COMPOSITION MADE FROM COAL-TAR.

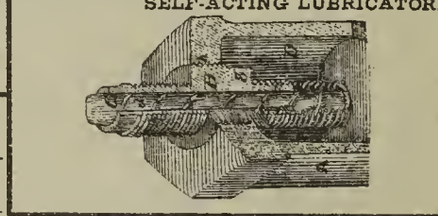
103,615, CHAS. HODGETTS. COAL-SCUTTLE.



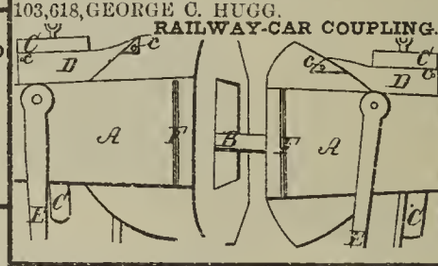
103,616, W. H. HOWARD.
TEMPLE FOR LOOM.



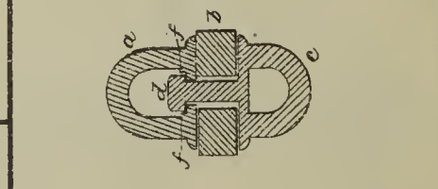
103,617, W. B. HOWE.
SELF-ACTING LUBRICATOR.



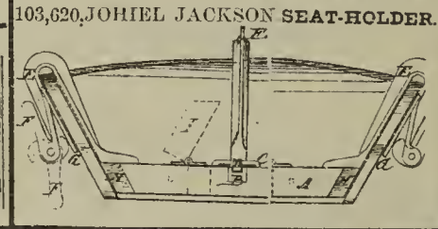
103,618, GEORGE C. HUGG.
RAILWAY-CAR COUPLING.

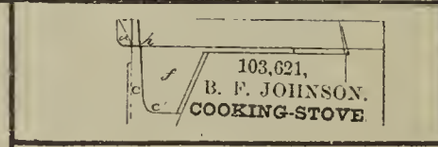


103,619, F. P. HUNT.
CHAIN-PUMP BUCKETS.



103,620, JOHIEL JACKSON SEAT-HOLDER.





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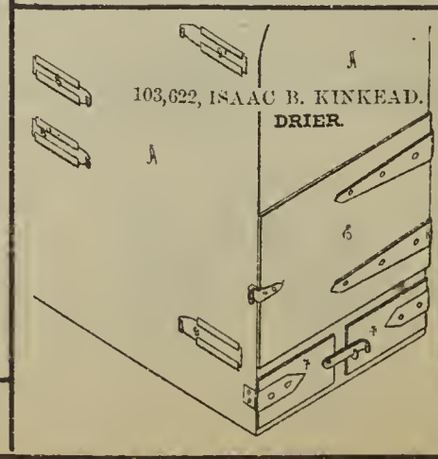
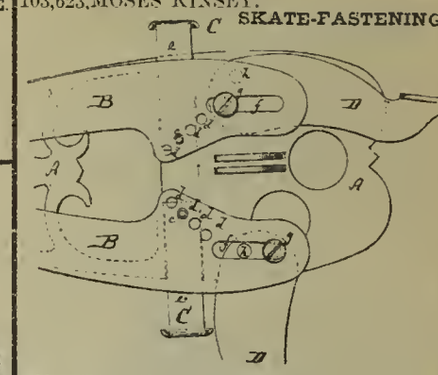
B. F. JOHNSON.
COOKING-STOVE.



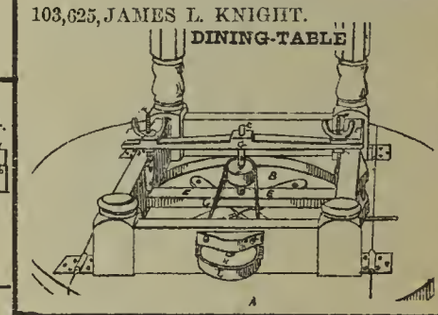
103,622, ISAAC B. KINKEAD.
DRIER.

103,623, MOSES KINSEY.
SKATE-FASTENING.



103,624, C. L. KNECHT.
CORK-SAVING BOTTLE-FASTENING.

103,625, JAMES L. KNIGHT.
DINING-TABLE.



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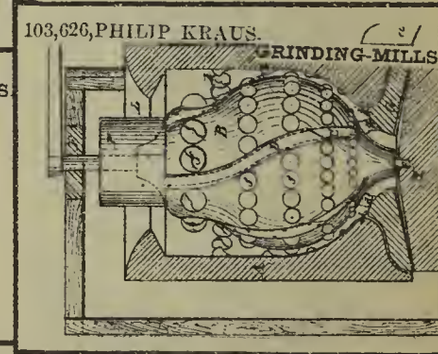
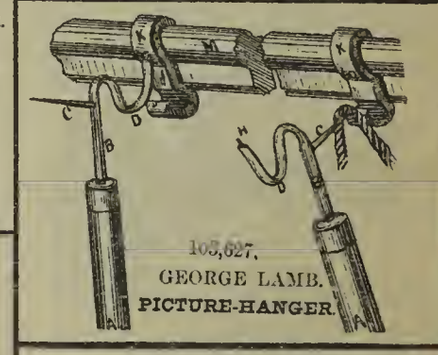
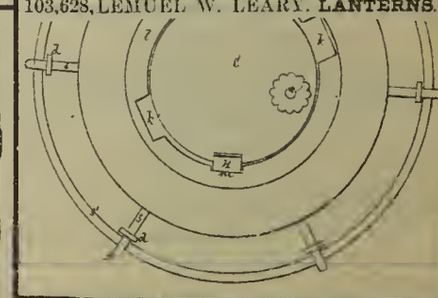
GRINDING-MILLS.





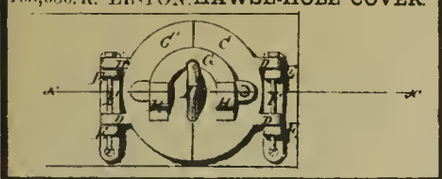
103,627,
GEORGE LAMB.
PICTURE-HANGER.

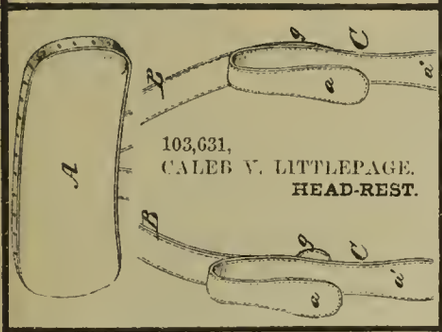
103,628, LEMUEL W. LEARY. LANTERNS.



103,629, JOHN LINTNER.
FASTENINGS FOR GATES.

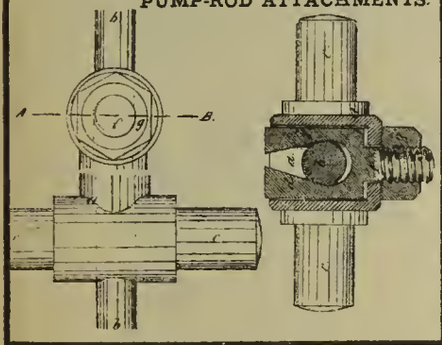
103,630. R. LISTON. HAWSE-HOLE COVER.



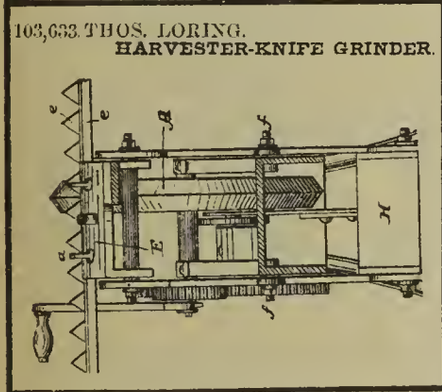


103,631, CALEB V. LITTLEPAGE. HEAD-REST.

103,632, HENRY H. LOCKE. PUMP-ROD ATTACHMENTS.



103,633. THOS. LORING. HARVESTER-KNIFE GRINDER.



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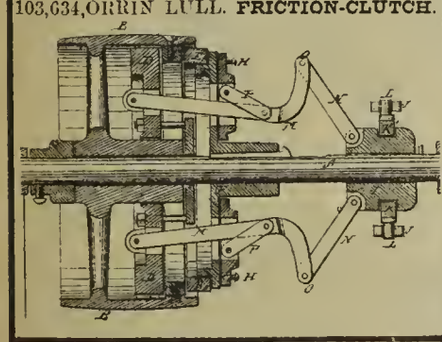
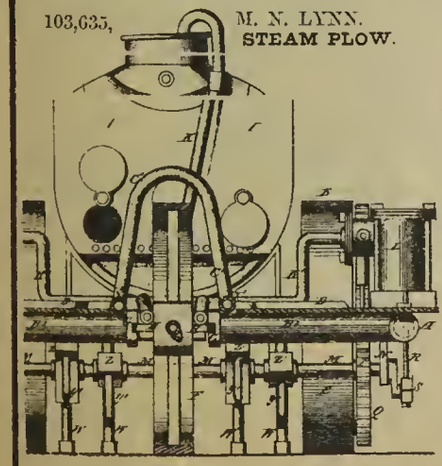
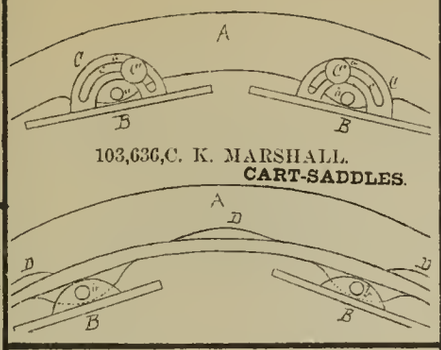


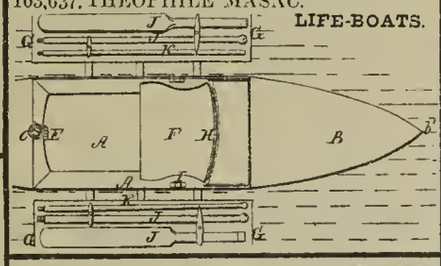
103,635, M. N. LYNN. STEAM PLOW.



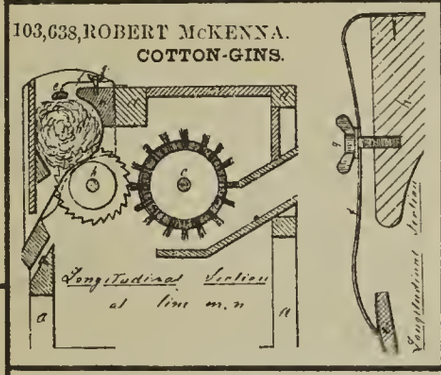


103,636, C. K. MARSHALL. CART-SADDLES.

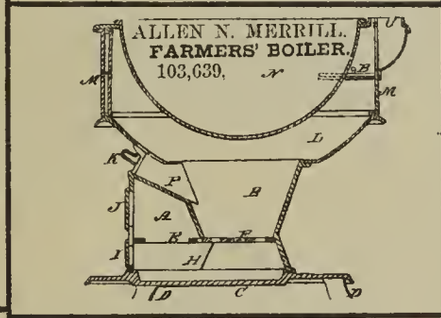
103,637. THEOPHILE MASAC. LIFE-BOATS.



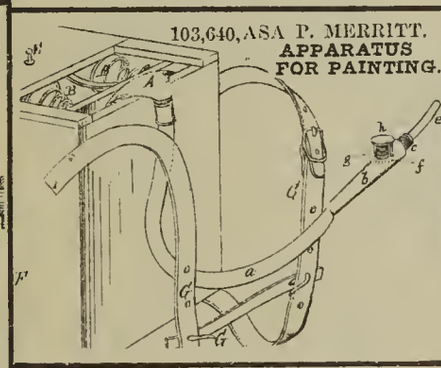
103,638, ROBERT McKENNA. COTTON-GINS.



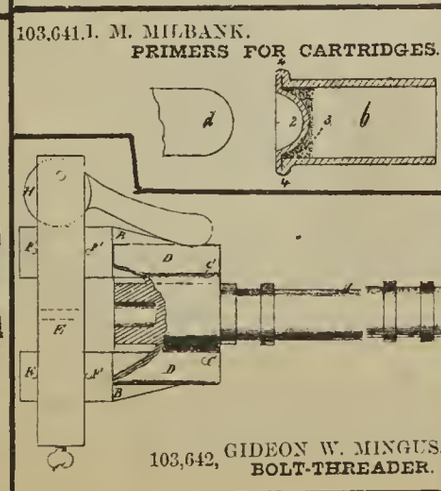
ALLEN N. MERRILL. FARMERS' BOILER. 103,639,



103,640, ASA P. MERRITT. APPARATUS FOR PAINTING.

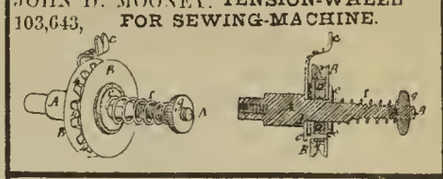


103,641. J. M. MILBANK. PRIMERS FOR CARTRIDGES.

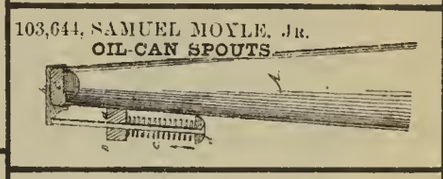


103,642, GIDEON W. MINGUS. BOLT-THREADER.

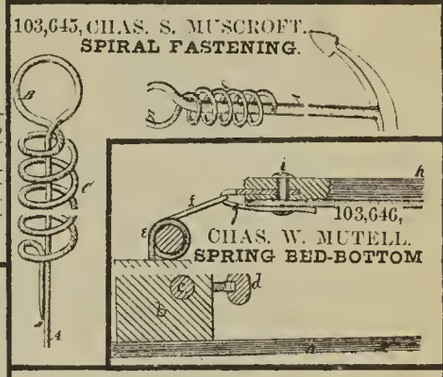
JOHN H. MOONEY. TENSION-WHEEL FOR SEWING-MACHINE. 103,643,



103,644, SAMUEL MOYLE, JR. OIL-CAN SPOUTS.

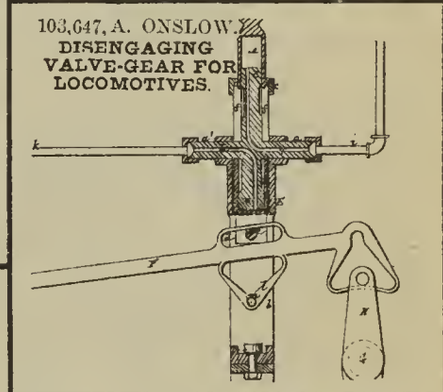


103,645, CHAS. S. MUSCROFT. SPIRAL FASTENING.

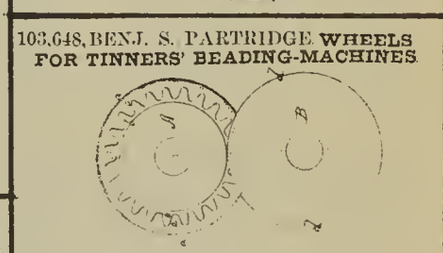


103,646, CHAS. W. MUTELL. SPRING BED-BOTTOM

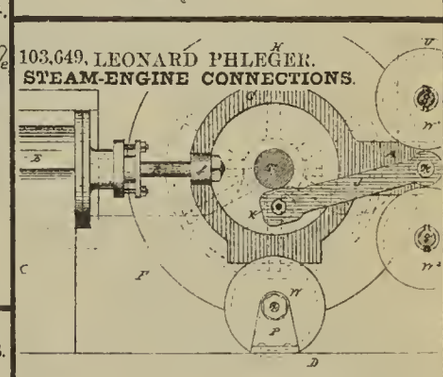
103,647, A. ONSLOW. DISENGAGING VALVE-GEAR FOR LOCOMOTIVES.



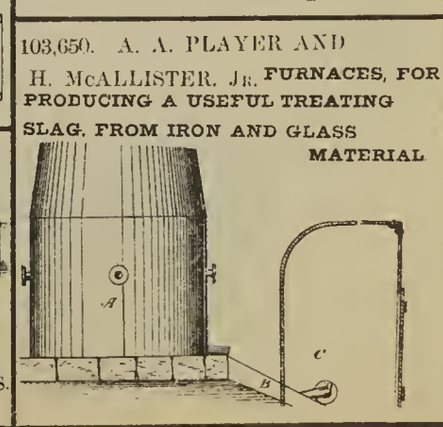
103,648, BENJ. S. PARTRIDGE. WHEELS FOR TINNERS' BEADING-MACHINES.



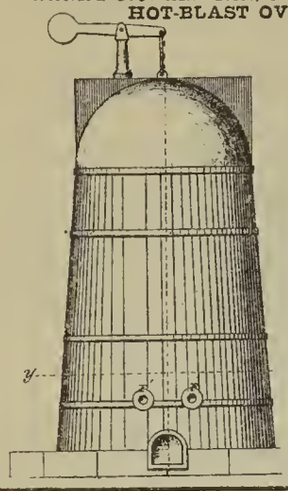
103,649, LEONARD PHLEGER. STEAM-ENGINE CONNECTIONS.



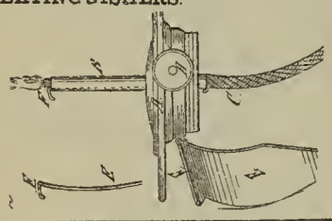
103,650. A. A. PLAYER AND H. McALLISTER, JR. FURNACES, FOR PRODUCING A USEFUL TREATING SLAG, FROM IRON AND GLASS MATERIAL



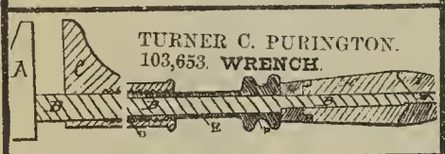
103,651, AUGUSTA AMELIA PLAYER, HENRY McALLISTER, JR.
HOT-BLAST OVENS.



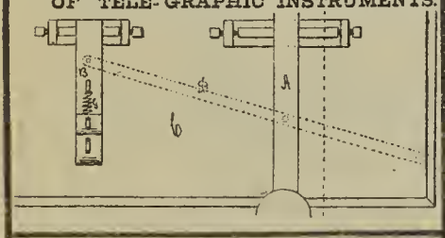
103,652, DAVID J. POWERS.
LAMP-EXTINGUISHERS.



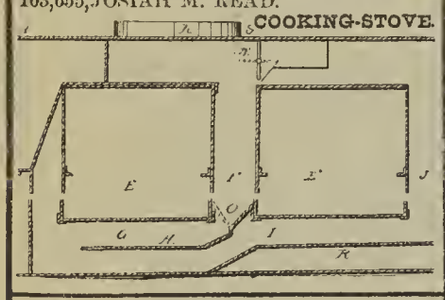
TURNER C. PURINGTON.
103,653. WRENCH.



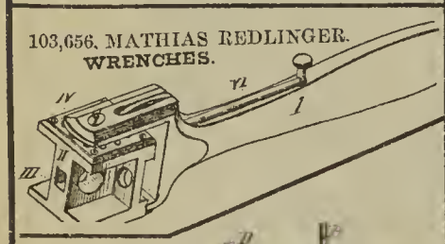
103,654. D. W. PUTT.
APPARATUS FOR TEACHING STUDENTS THE USE OF TELE-GRAPHIC INSTRUMENTS.

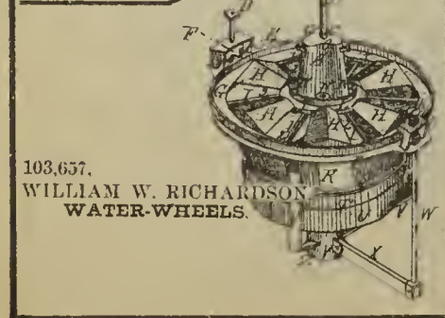


103,655, JOSIAH M. READ.
COOKING-STOVE.



103,656. MATHIAS REDLINGER.
WRENCHES.



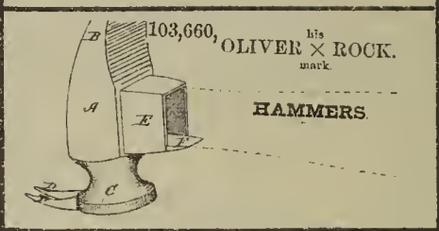


103,657.
WILLIAM W. RICHARDSON.
WATER-WHEELS.

103,658,
GIDEON B. RICHMOND.
SPRING BED-BOTTOM.

103,659, N. H. ROBINSON.
DOVETAILING-CHISEL.

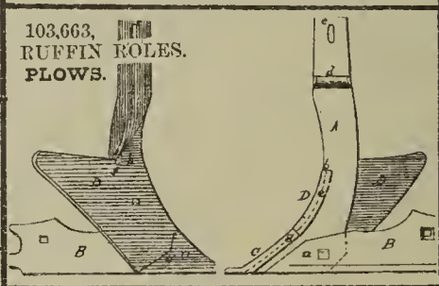
103,660, OLIVER his × mark ROCK.
HAMMERS.



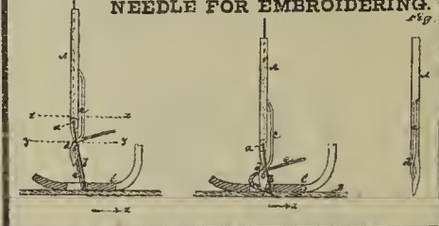
103,661, JOSEPH G. ROGERS.
COMPOSITION FOR PREVENTING INCRUSTATION IN STEAM-BOILERS.

103,662. JOSEPH G. ROGERS. PREVENTING INCRUSTATION IN STEAM-BOILERS.

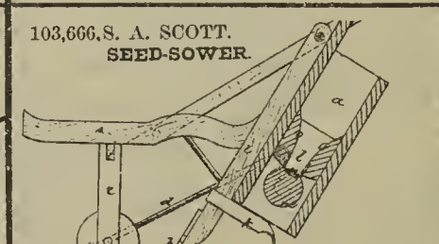
103,663,
RUFFIN ROLES.
PLOWS.



103,664, I. M. ROSE. SEWING-MACHINE NEEDLE FOR EMBROIDERING.

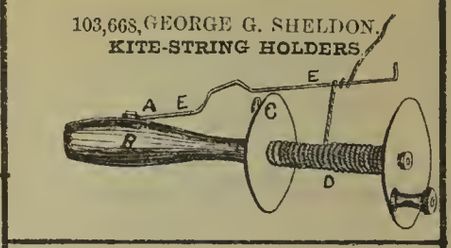


103,665, PHILIP JACOB SCHOPP.
APPARATUS TO EFFECT THE HYDRATION OF AIR IN HEATED APARTMENTS.



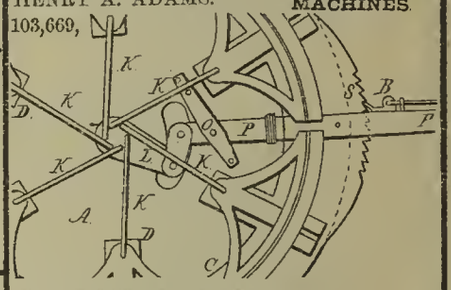
103,666, S. A. SCOTT.
SEED-SOWER.

103,667, GEO. H. SELLERS.
HYDRAULIC HOUSINGS FOR ROLLS.

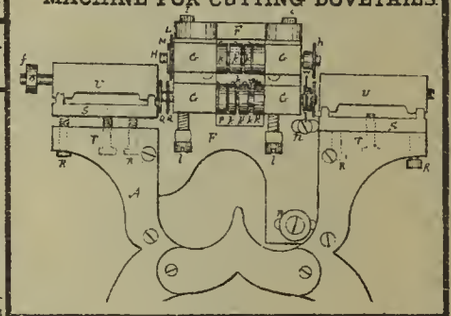


103,668, GEORGE G. SHELDON.
KITE-STRING HOLDERS.

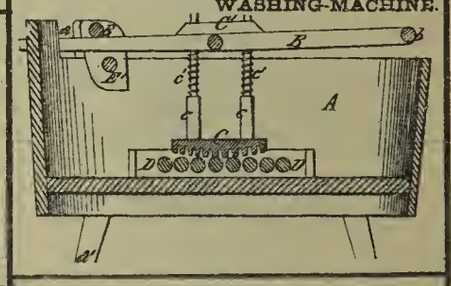
ANDREW SHOGREN.
HENRY A. ADAMS.
TIRE-SETTING MACHINES.
103,669,



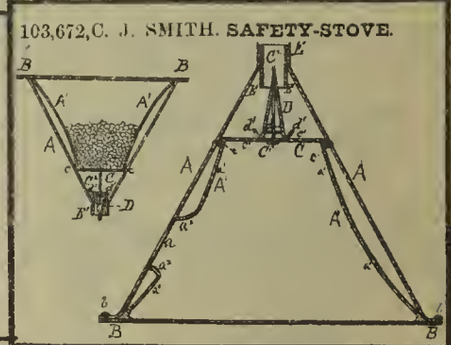
103,670, WILLARD E. SIBLEY.
MACHINE FOR CUTTING DOVETAILS.



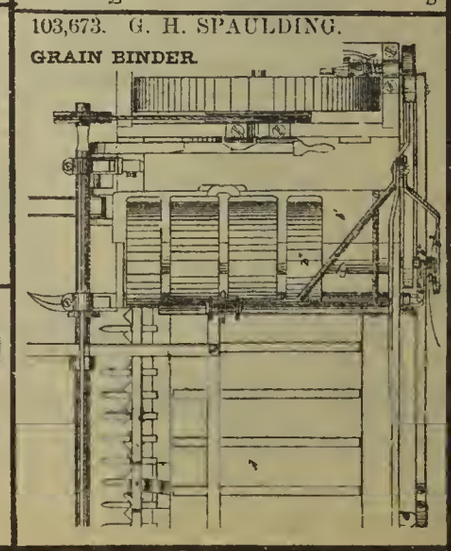
103,671, JOHN SIRRINE.
WASHING-MACHINE.



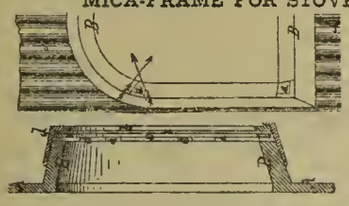
103,672, C. J. SMITH. SAFETY-STOVE.



103,673. G. H. SPAULDING.
GRAIN BINDER.

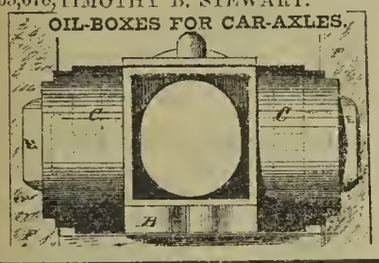


103,674, GAYLORD SHARP STANARD.
MICA-FRAME FOR STOVES

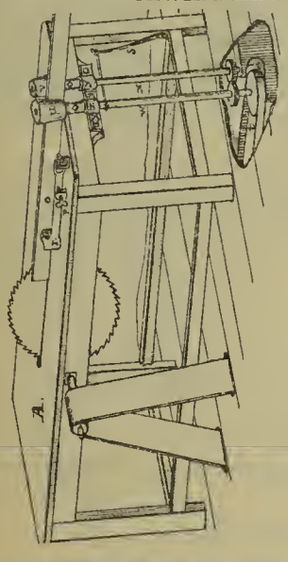


103,675, JAMES T. STEWART.
MEDICAL COMPOUND.

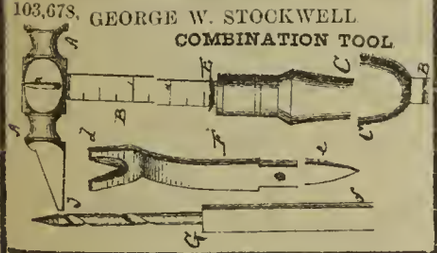
103,676, TIMOTHY B. STEWART.
OIL-BOXES FOR CAR-AXLES.



103,677, NICHOLAS STILWELL.
SAWING-MACHINE.

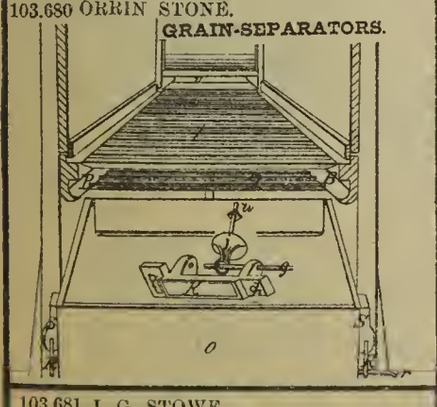


103,678, GEORGE W. STOCKWELL
COMBINATION TOOL.

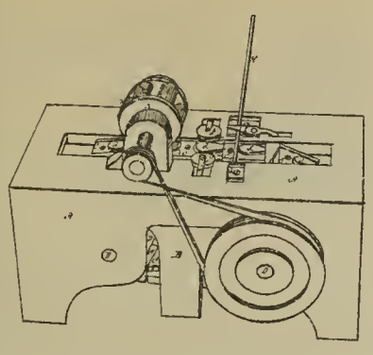


103,679, MELVIN STONE.
SAFETY WHIFFLETREE.

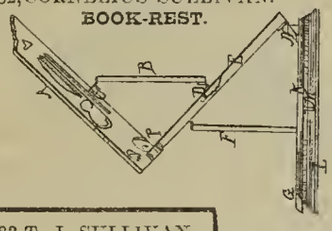
103,680 ORRIN STONE.
GRAIN-SEPARATORS.



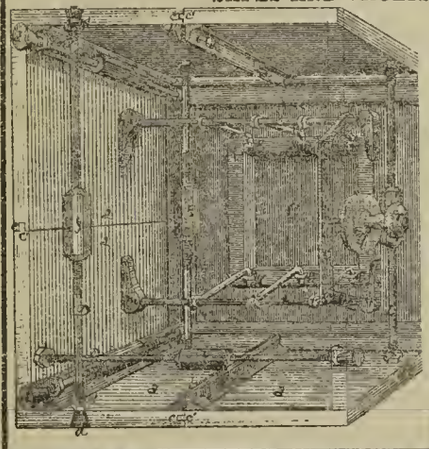
103,681, J. G. STOWE.
MACHINE FOR MAKING HORSESHOES.



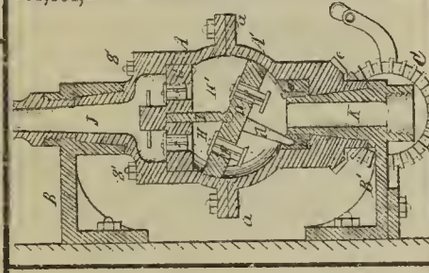
103,682, CORNELIUS SULLIVAN.
BOOK-REST.



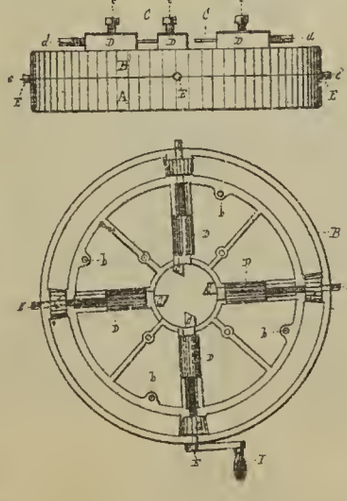
103,683, T. J. SULLIVAN.
SAFES AND VAULTS.



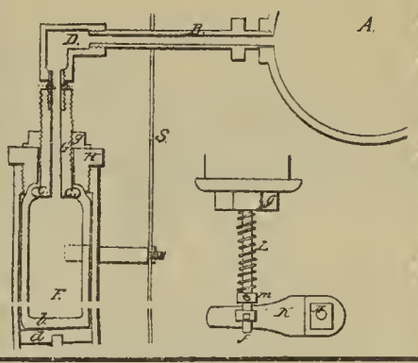
103,684, THOMAS SWAN. ROTARY PUMPS.



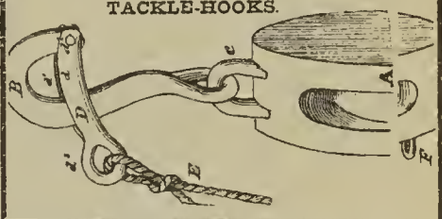
103,685, STEPHEN P. M. TASKER. DEVICE FOR CUTTING OFF METALLIC TUBES.



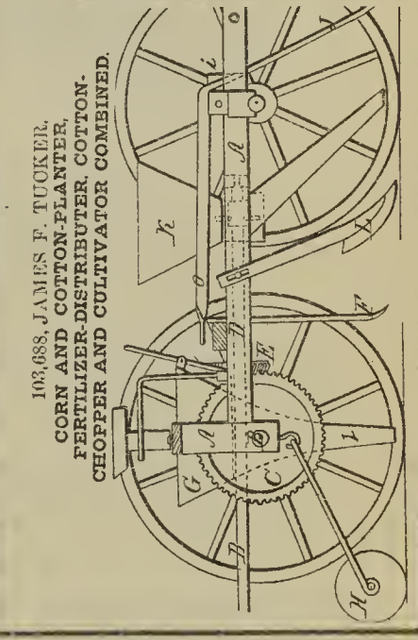
103,686, WILLIAM TAYLOR.
STOVE-PIPE DAMPER.



103,687, HENRY THOMPSON.
TACKLE-HOOKS.

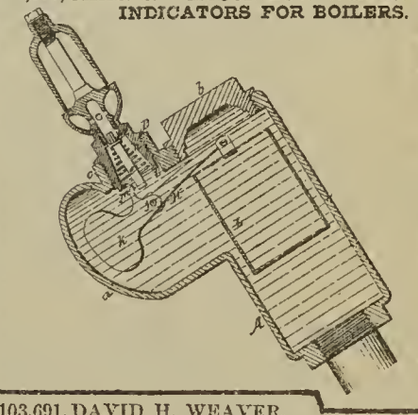


103,688, JAMES F. TUCKER.
CORN AND COTTON-PLANTER, FERTILIZER-DISTRIBUTER, COTTON-CHOPPER AND CULTIVATOR COMBINED.

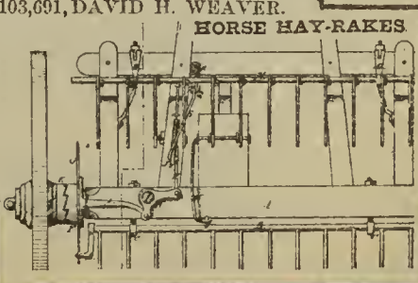


103,689, ULYSSES B. VIDAL. LOCK-NUT.

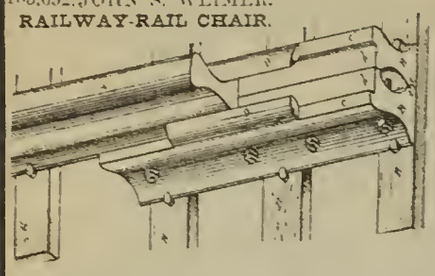
103,690, CHAS. S. WATSON. LOW-WATER INDICATORS FOR BOILERS.



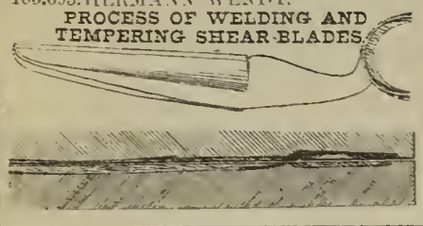
103,691, DAVID H. WEAVER.
HORSE HAY-RAKES.



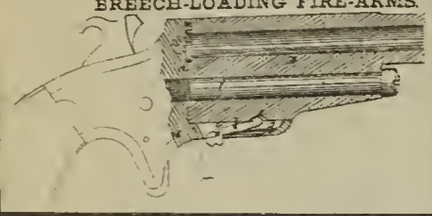
103,692, JOHN S. WEIMER.
RAILWAY-RAIL CHAIR.



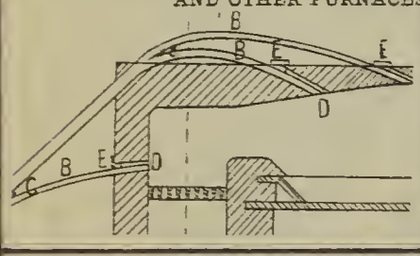
103,693, HERMANN WENDT.
PROCESS OF WELDING AND TEMPERING SHEAR-BLADES.



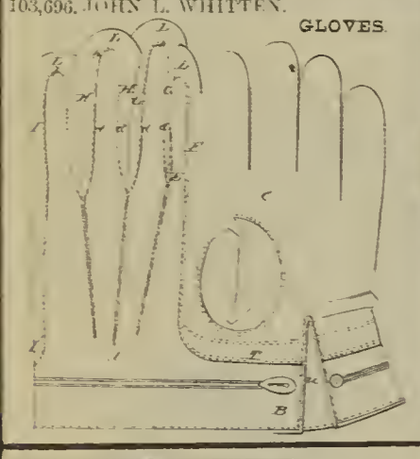
103,694, F. WESSON
BREECH-LOADING FIRE-ARMS.



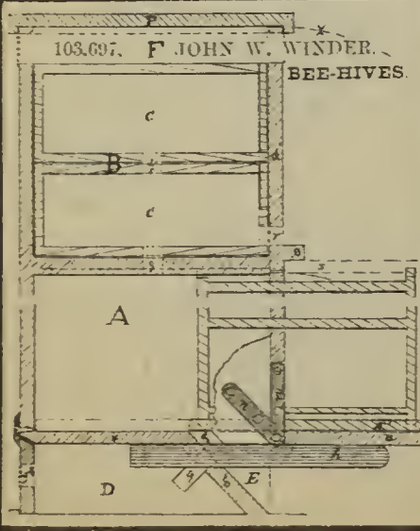
103,695, JAMES D. WHELPLEY
JACOB J. STORER.
FEEDING FUEL TO METALLURGIC AND OTHER FURNACES.



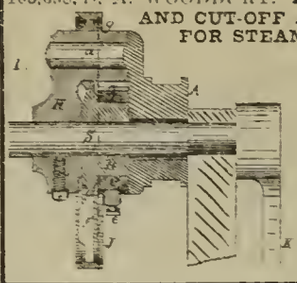
103,696, JOHN L. WHITTEN.
GLOVES.



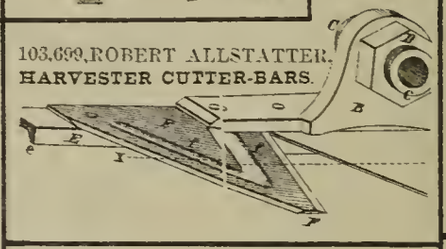
103,697, JOHN W. WINDER.
BEE-HIVES.



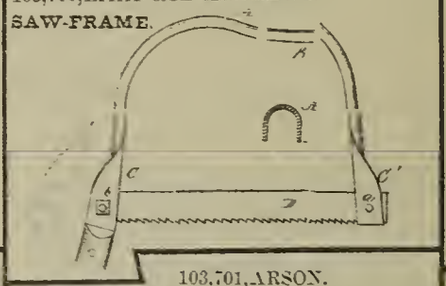
103,698, D. A. WOODBURY. REVERSING AND CUT-OFF APPARATUS FOR STEAM-ENGINES



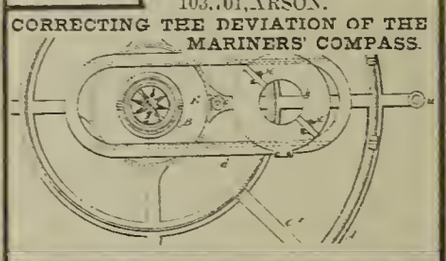
103,699, ROBERT ALLSTATTER.
HARVESTER CUTTER-BARS.



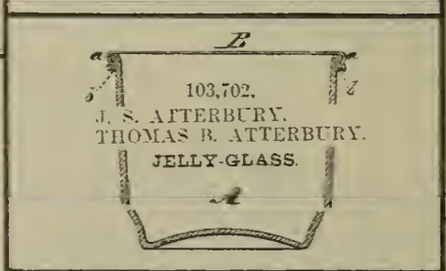
103,700, EMANUEL ANDREWS.
SAW-FRAME.



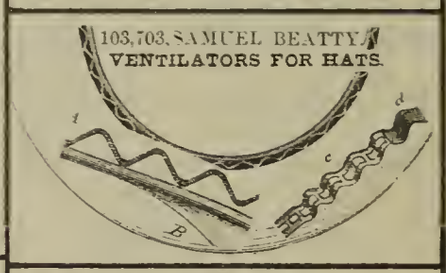
103,701, ARSON.
CORRECTING THE DEVIATION OF THE MARINERS' COMPASS.



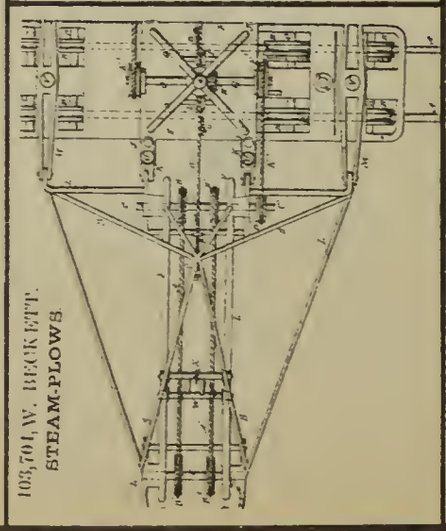
103,702.
J. S. ATTERBURY.
THOMAS B. ATTERBURY.
JELLY-GLASS.



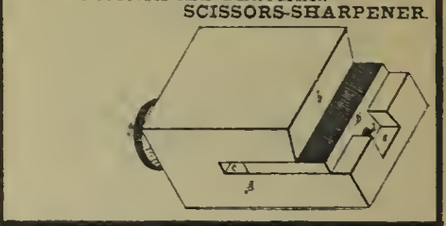
103,703, SAMUEL BEATTY.
VENTILATORS FOR HATS.



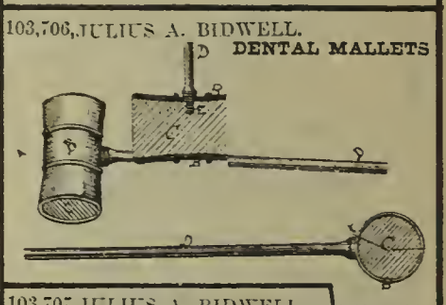
103,704, W. BECKETT.
STEAM-PLOWS.



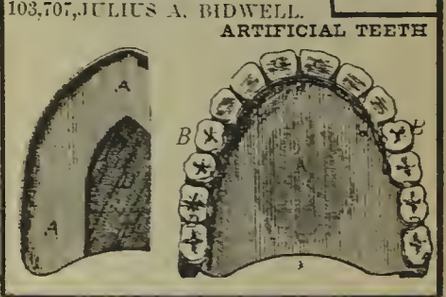
103,705, NATHANIEL BELCHER.
SCISSORS-SHARPENER.



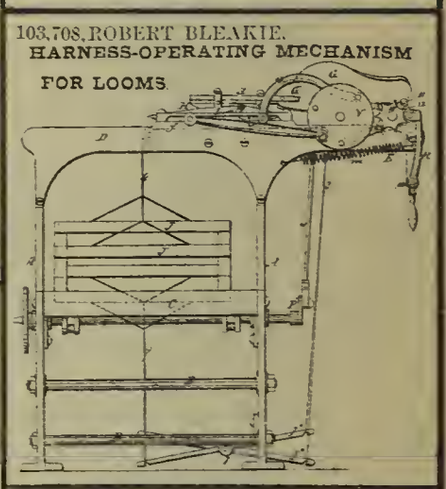
103,706, JULIUS A. BIDWELL.
DENTAL MALLETS



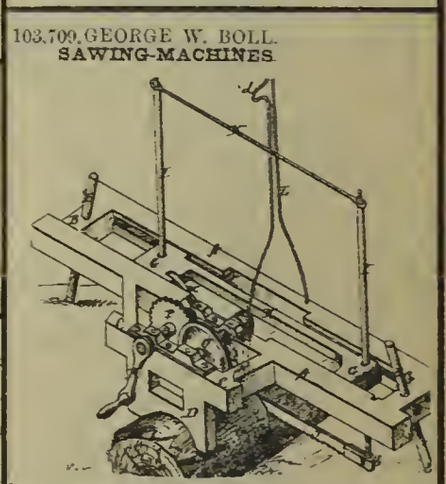
103,707, JULIUS A. BIDWELL.
ARTIFICIAL TEETH



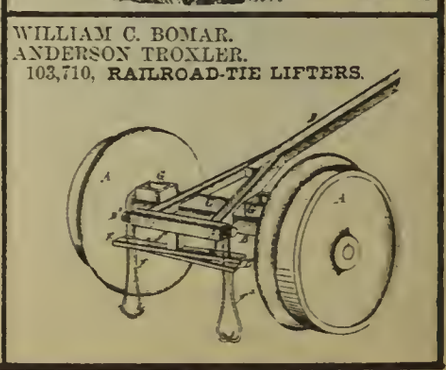
103,708, ROBERT BLEAKIE.
HARNESS-OPERATING MECHANISM FOR LOOMS.



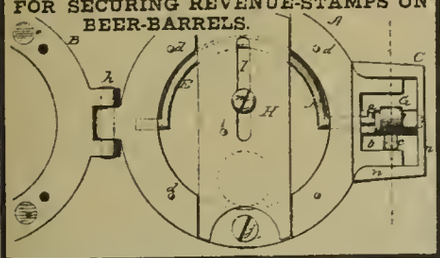
103,709, GEORGE W. BOLL.
SAWING-MACHINES.



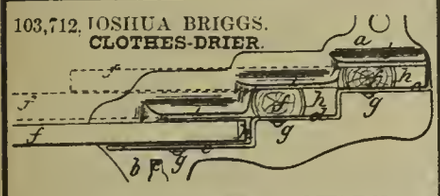
WILLIAM C. BOMAR.
ANDERSON TROXLER.
103,710, RAILROAD-TIE LIFTERS.



103,711 FREDERICK BRACKETT. LOCKS FOR SECURING REVENUE-STAMPS ON BEER-BARRELS.



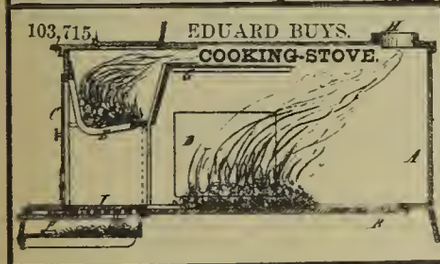
103,712, JOSHUA BRIGGS. CLOTHES-DRIER.



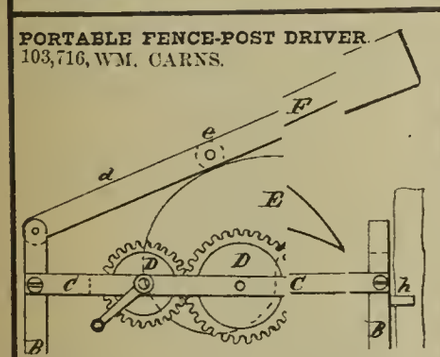
JOHN W. BROCKLEBANK. GEORGE W. TUBBS 103,713, WOOD PAVEMENT.

HAMILTON BROWNE. 103,714, CLOTHES-LINE HOLDER.

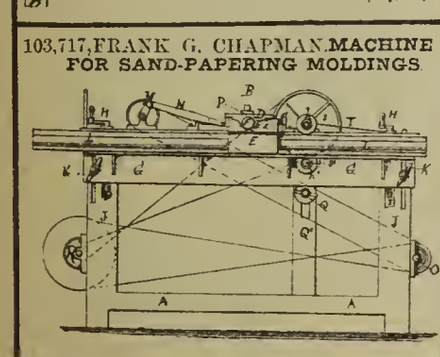
103,715, EDUARD BUYS. COOKING-STOVE.



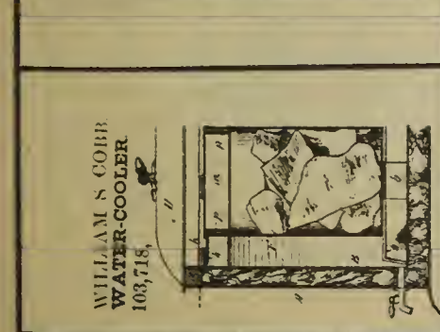
PORTABLE FENCE-POST DRIVER. 103,716, WM. CARNS.



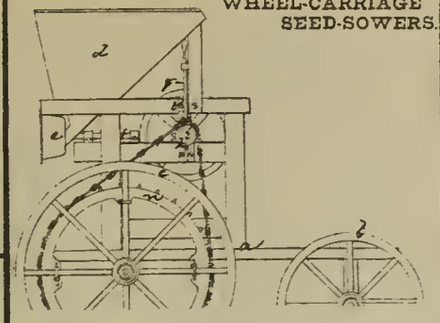
103,717, FRANK G. CHAPMAN. MACHINE FOR SAND-PAPERING MOLDINGS.



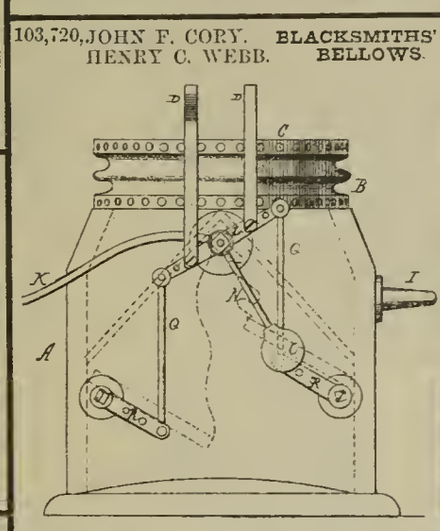
WILLIAM S COBB. WATER-COOLER. 103,718,



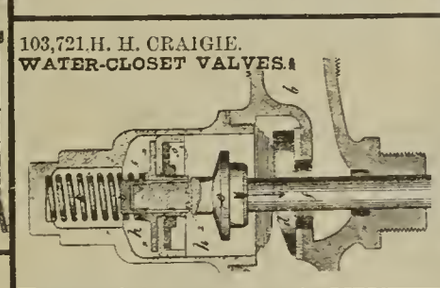
103,719, J. H. COLE. WHEEL-CARRIAGE SEED-SOWERS.



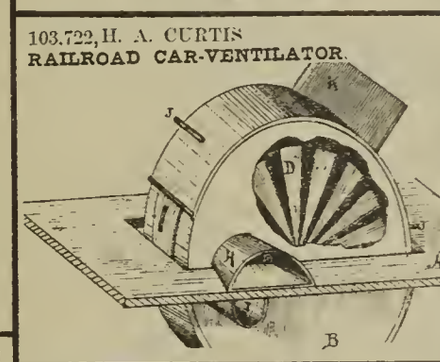
103,720, JOHN F. CORY. HENRY C. WEBB. BLACKSMITHS' BELLOWS.



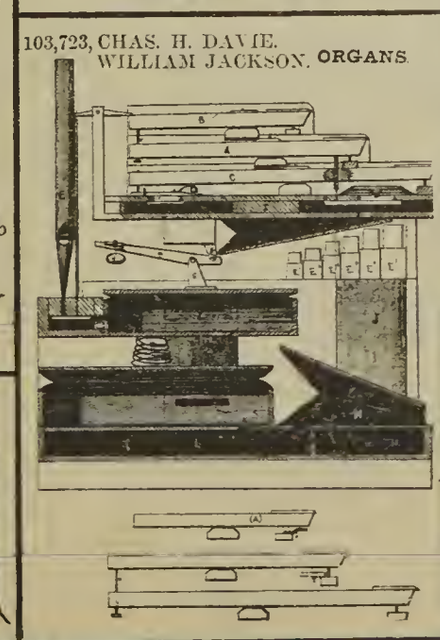
103,721, H. H. CRAIGIE. WATER-CLOSET VALVES.



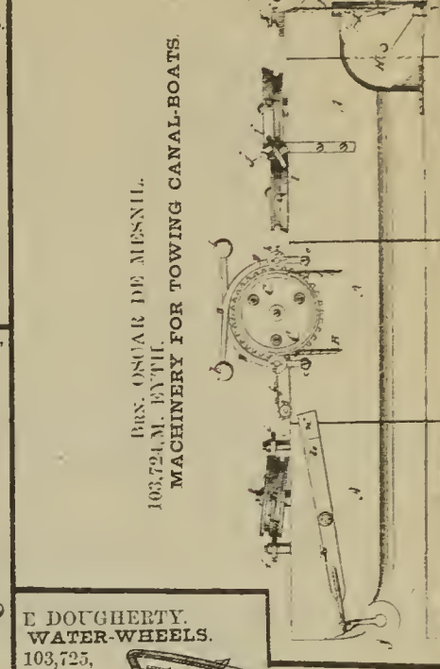
103,722, H. A. CURTIS RAILROAD CAR-VENTILATOR.



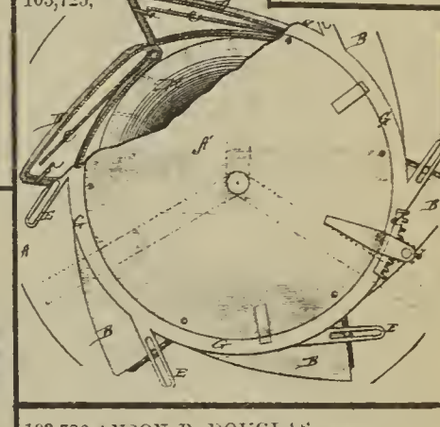
103,723, CHAS. H. DAVIE. WILLIAM JACKSON. ORGANS.



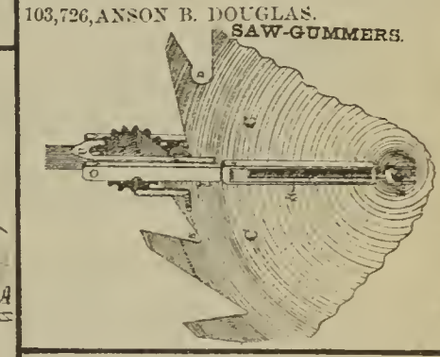
BRN. OSCAR DE MESNIL. 103,724, M. BYTH. MACHINERY FOR TOWING CANAL-BOATS.



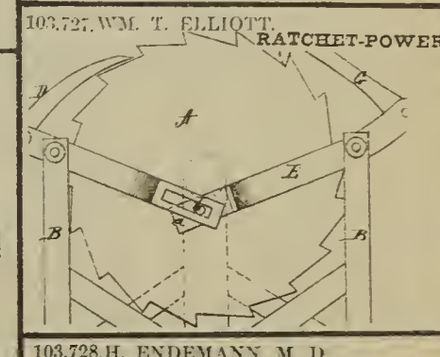
E DOUGHERTY. WATER-WHEELS. 103,725,



103,726, ANSON B. DOUGLAS. SAW-GUMMERS.

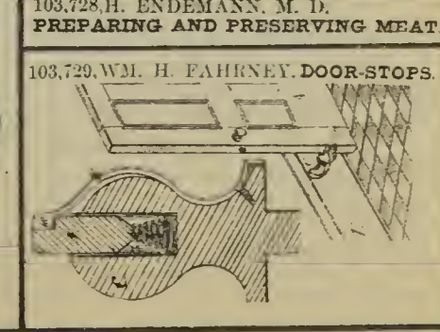


103,727, WM. T. ELLIOTT. RATCHET-POWER.

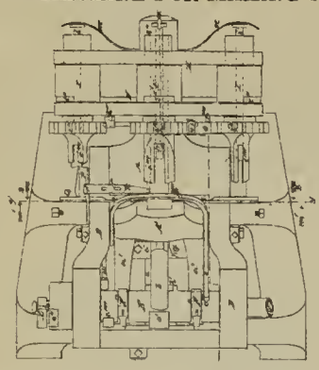


103,728, H. ENDEMANN, M. D. PREPARING AND PRESERVING MEAT.

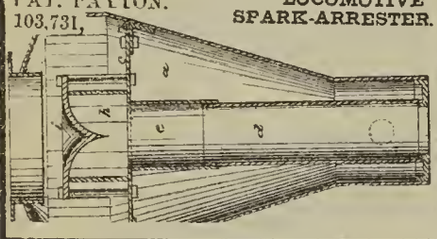
103,729, WM. H. FAHRNEY. DOOR-STOPS.



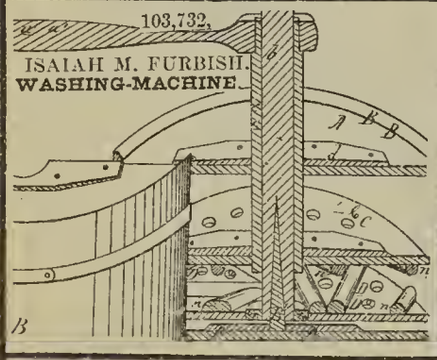
103,730, DAVID J. FARMER.
MACHINE FOR MAKING NAILS.



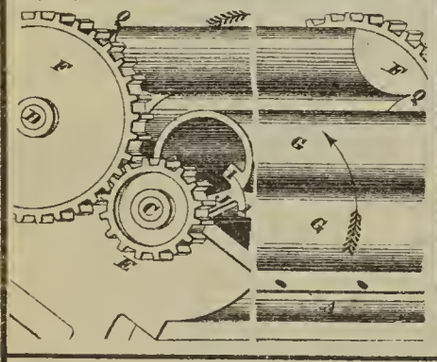
BENJAMIN P. FREEMAN.
PAT. PAYTON.
LOCOMOTIVE SPARK-ARRESTER.
103,731,



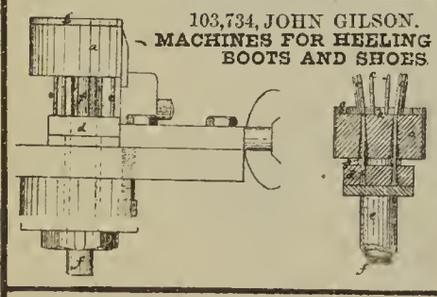
103,732,
ISAIAH M. FURBISH.
WASHING-MACHINE.



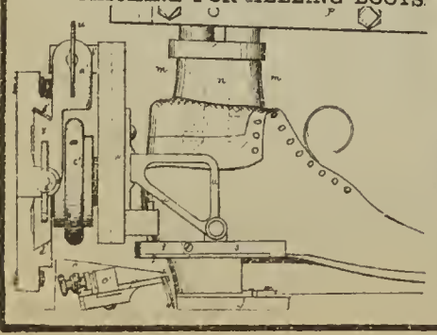
103,733, JAMES N. GILCHRIST. BLOWERS



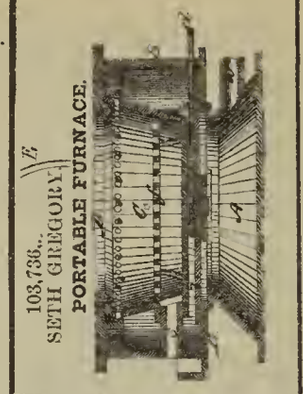
103,734, JOHN GILSON.
MACHINES FOR HEELING BOOTS AND SHOES.



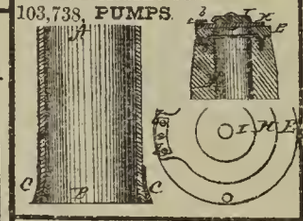
103,735, CHARLES W. GLIDDEN.
MACHINE FOR HEELING BOOTS.



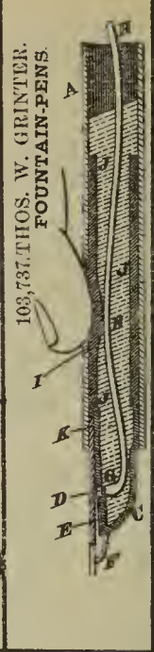
103,736, SETH GREGORY.
PORTABLE FURNACE.



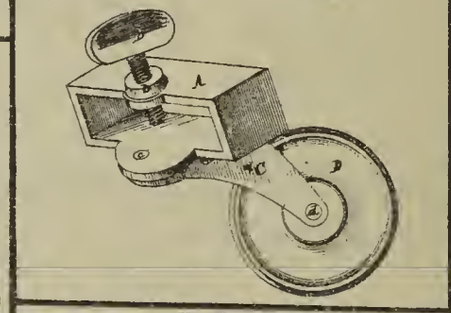
W. M. HAMILTON.
103,738, PUMPS.



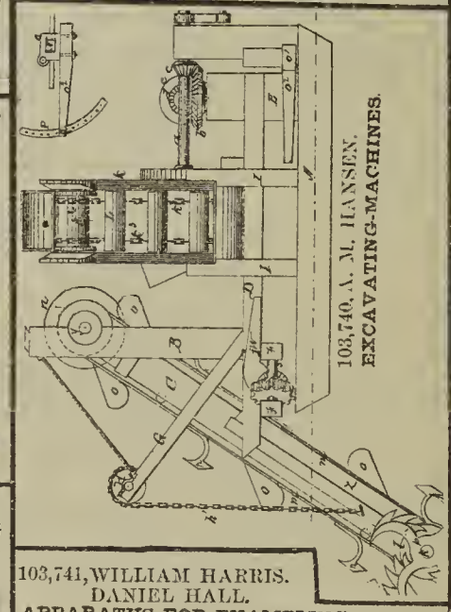
103,737. THOS. W. GRINTER.
FOUNTAIN-PENS.



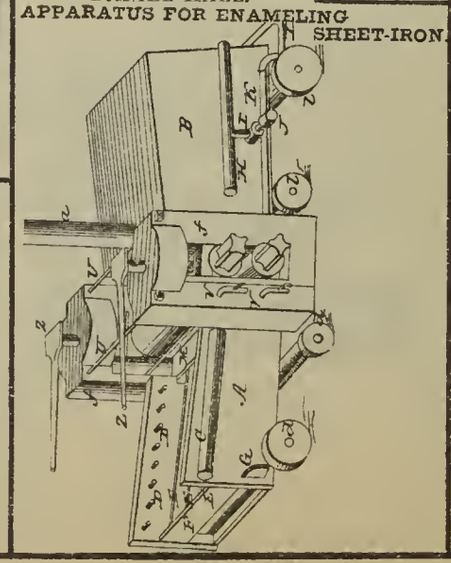
103,739, O. HANKS. TOOL-HOLDER.



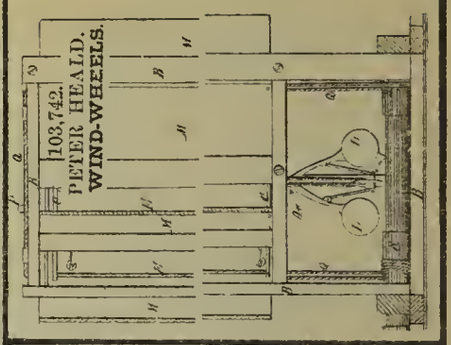
103,740, A. M. HANSEN.
EXCAVATING-MACHINES.



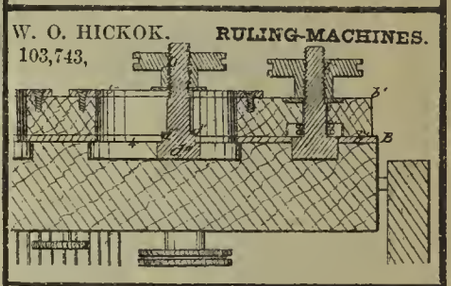
103,741, WILLIAM HARRIS.
DANIEL HALL.
APPARATUS FOR ENAMELING SHEET-IRON.



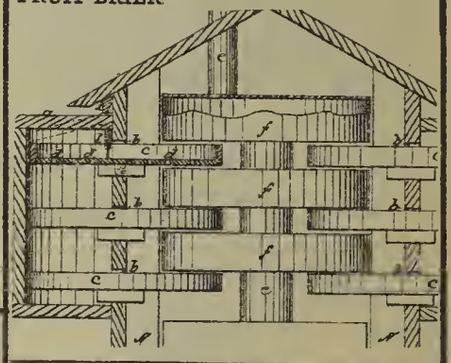
103,742.
PETER HEALD.
WIND-WHEELS.



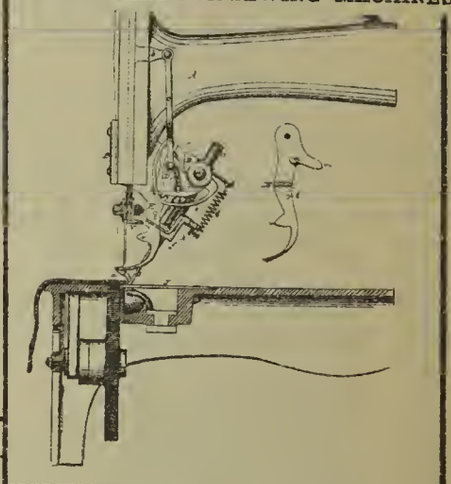
W. O. HICKOK.
103,743,
RULING-MACHINES.



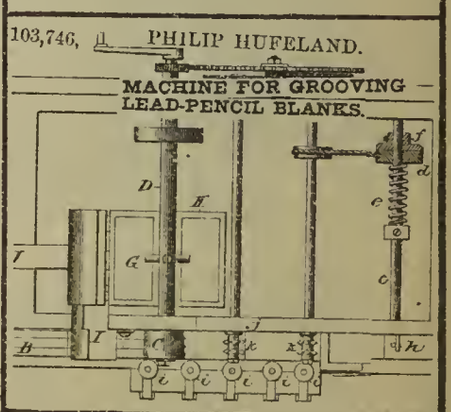
103,744. J. HILDEBRAND
FRUIT DRIER.



103,745. E. HOWARD AND
W. H. JACKSON.
BUTTON HOLING AND OVERSEAMING ATTACHMENT FOR SEWING MACHINES.

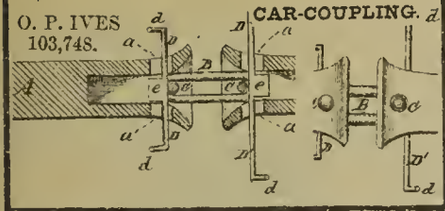


103,746, PHILIP HUFELAND.
MACHINE FOR GROOVING LEAD-PENCIL BLANKS.

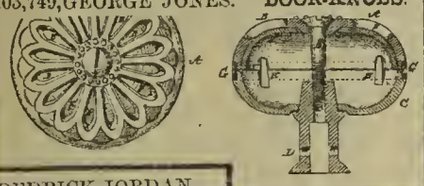


103,747, FRANKLIN TRUMAN HUNTOON.
COMPOUND FOR CLEANING CLOTH AND OTHER FABRICS

O. P. IVES
103,748. CAR-COUPLING.



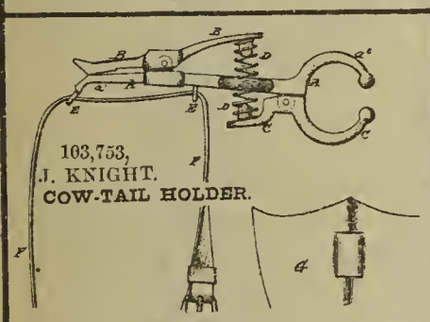
103,749, GEORGE JONES. DOOR-KNOBS.



DEDRICK JORDAN.
103,750. CUTTERS FOR DOVETAILING-MACHINES

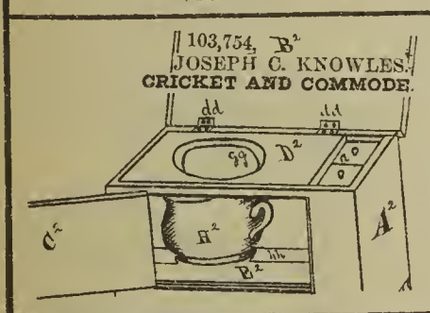
103,751, J. M. KEEP.
TOWEL OR CLOTHES-RACK.

103,752, J. M. KEEP.
TWINE-HOLDER.

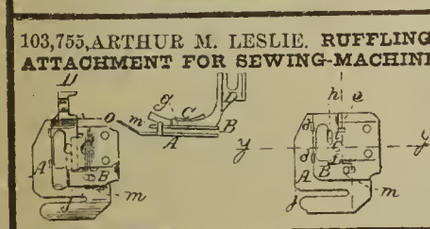


103,753,
J. KNIGHT.
COW-TAIL HOLDER.

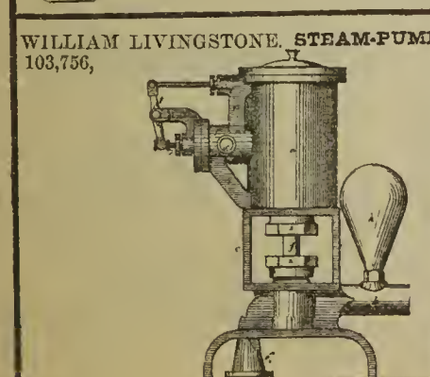
103,754, B²
JOSEPH C. KNOWLES.
CRICKET AND COMMODE.



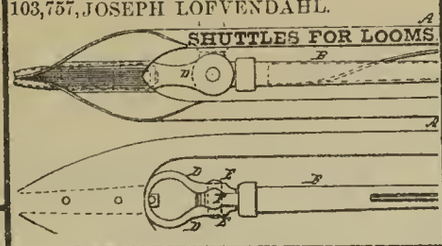
103,755, ARTHUR M. LESLIE. RUFFLING ATTACHMENT FOR SEWING-MACHINE



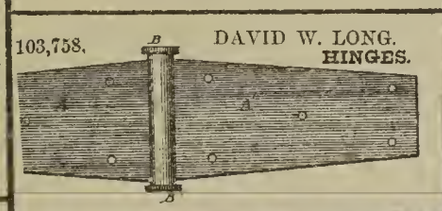
WILLIAM LIVINGSTONE. STEAM-PUMP.
103,756,



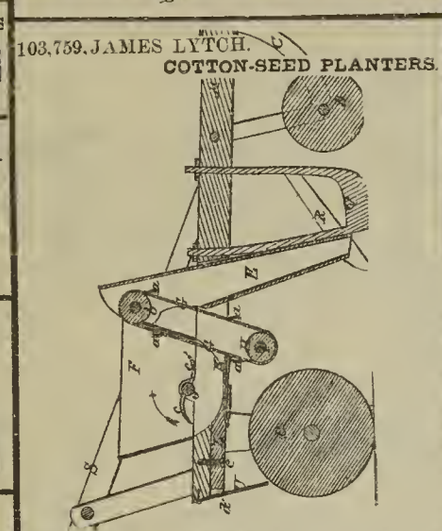
103,757, JOSEPH LOFVENDAHL.
SHUTTLES FOR LOOMS.



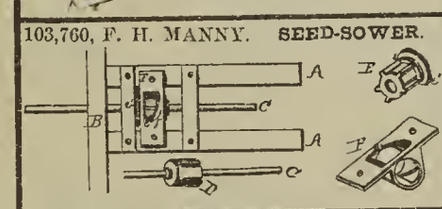
103,758. DAVID W. LONG.
HINGES.



103,759, JAMES LYTCH.
COTTON-SEED PLANTERS.

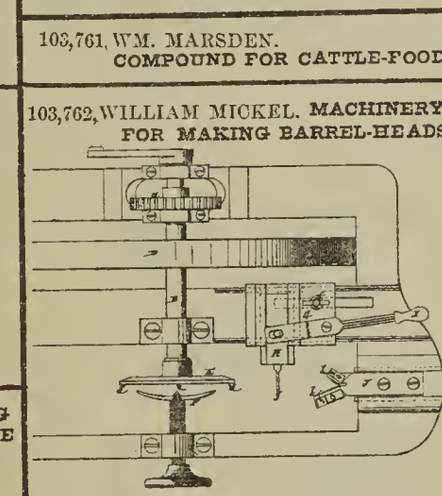


103,760, F. H. MANNY. SEED-SOWER.



103,761, WM. MARSDEN.
COMPOUND FOR CATTLE-FOOD.

103,762, WILLIAM MICKEL. MACHINERY FOR MAKING BARREL-HEADS.



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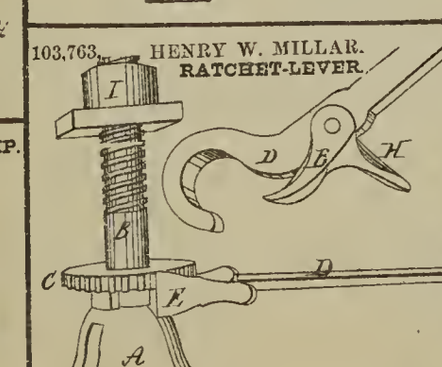
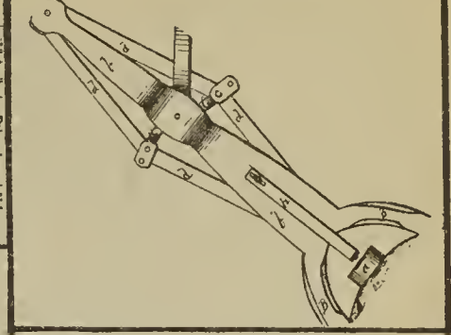
RATCHET-LEVER.



103,764, GARDNER C. MILLER.
HAND PUNCHING-MACHINE.



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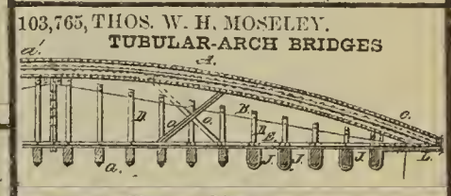
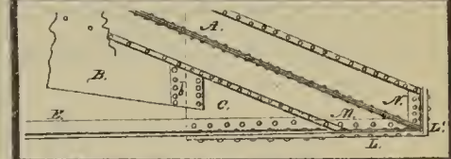
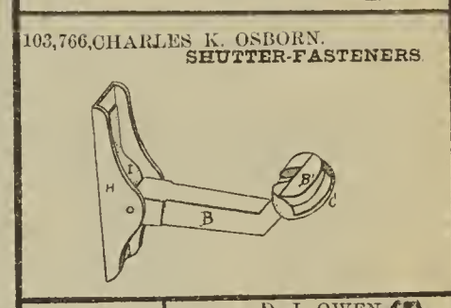
TUBULAR-ARCH BRIDGES

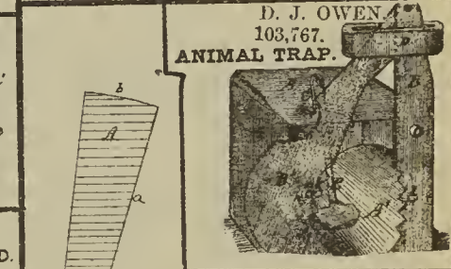




103,766, CHARLES K. OSBORN.
SHUTTER-FASTENERS.



D. J. OWEN.
103,767.
ANIMAL TRAP.



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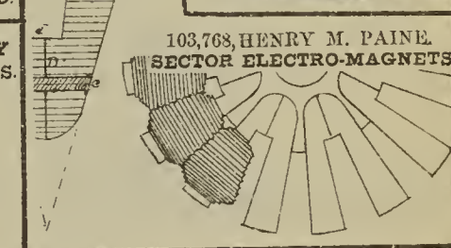
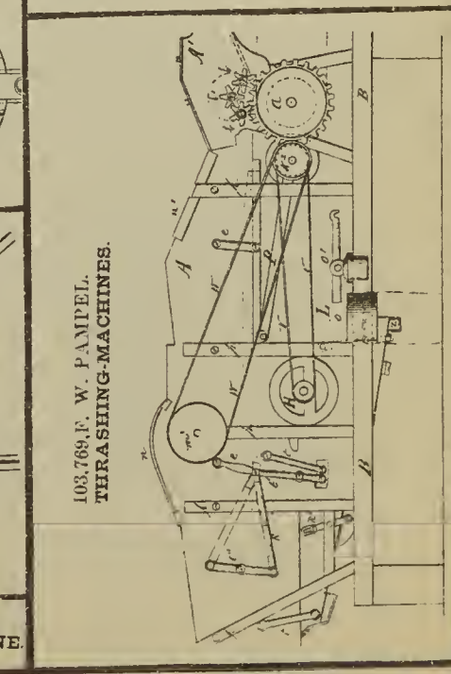
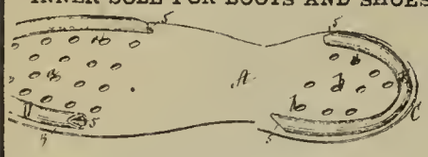
SECTOR ELECTRO-MAGNETS



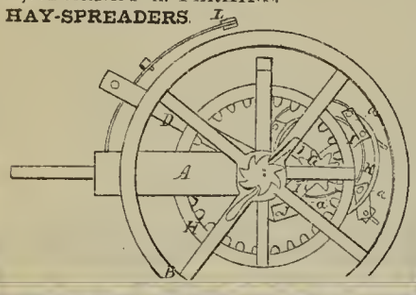
103,769, F. W. PAMPEL.
THRASHING-MACHINES.



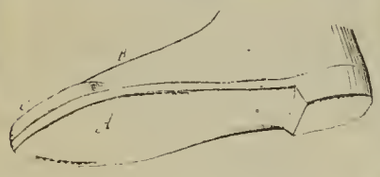
103,770, EDWARD W. PARISH.
INNER SOLE FOR BOOTS AND SHOES.



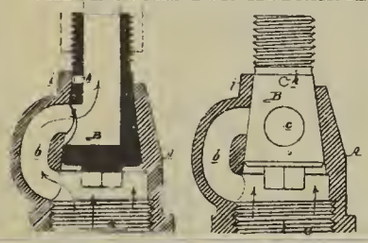
103,771 HENRY L. PERKINS.
HAY-SPREADERS.



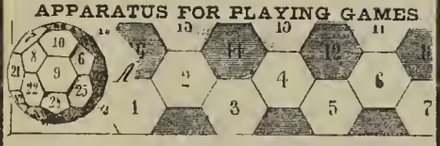
103,772 MANASSEH PETTENGILL.
METAL TIPS FOR BOOTS AND SHOES.



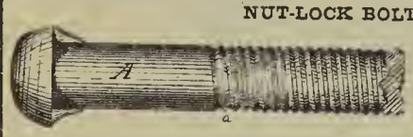
103,773. SOLOMON PFLEGER.
VALVE-COCKS FOR HYDRANTS.



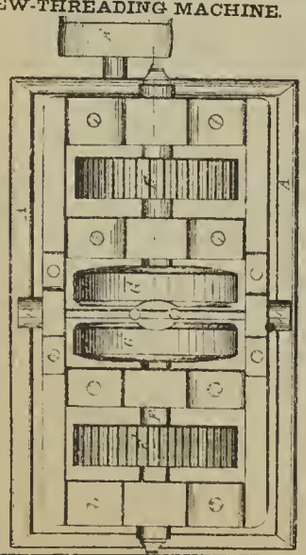
103,774, HIRAM PLUMB.
APPARATUS FOR PLAYING GAMES.



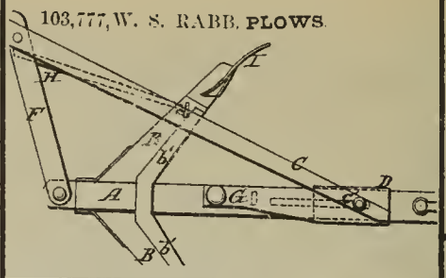
103,775. TREAT T. PROSSER.
NUT-LOCK BOLT.



103,776. TREAT T. PROSSER.
SCREW-THREADING MACHINE.

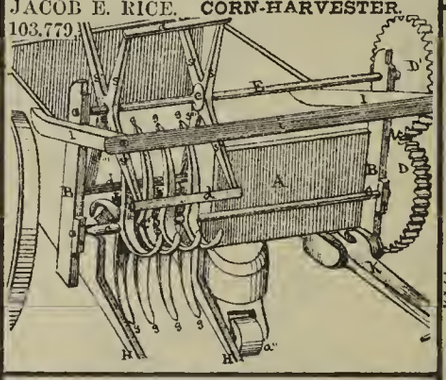


103,777, W. S. RABB. PLOWS.

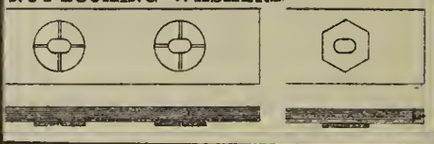


103,778, FREDERIC W. RHINELANDER.
CAR-SPRINGS.

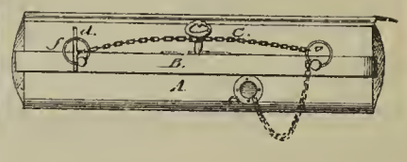
JACOB E. RICE. CORN-HARVESTER.
103,779.



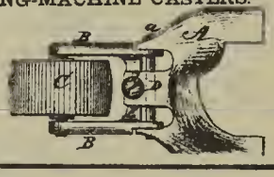
103,780, ROBINSON RUTTER.
NUT-LOCKING WASHERS.



103,781, J. B. SARGENT.
LOCK FOR TRAVELING-BAGS.

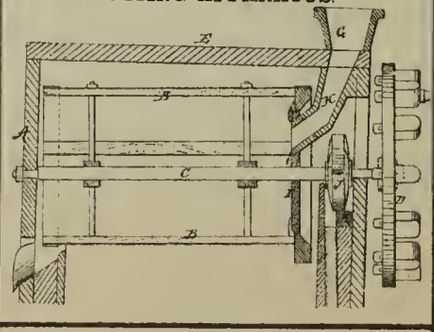


103,782, JOSEPH B. SARGENT.
SEWING-MACHINE CASTERS.

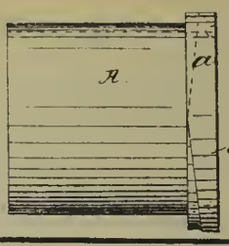


103,783, Z. E. SAWTELLE.
PULLEYS FOR WINDOW-SASH.

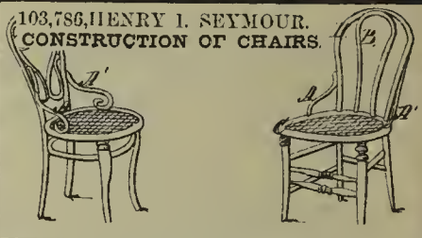
103,784, LOUIS C. A. SCHMIDT.
FLOUR-BOLTING APPARATUS.



103,785, GEO. SEWELL. HOSE-COUPLINGS.



103,786, HENRY I. SEYMOUR.
CONSTRUCTION OF CHAIRS.



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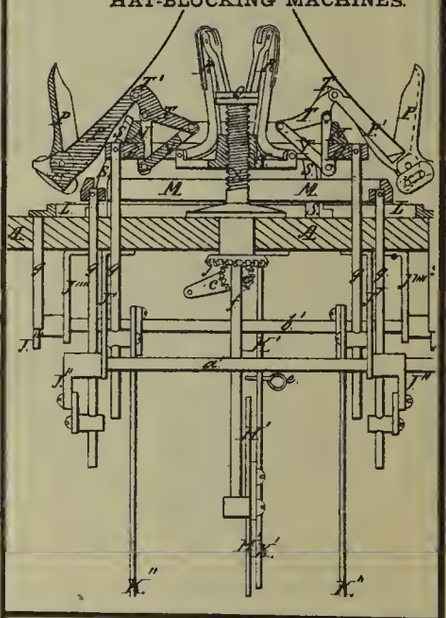
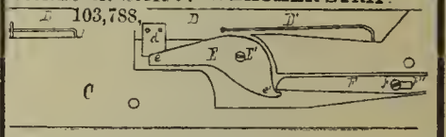
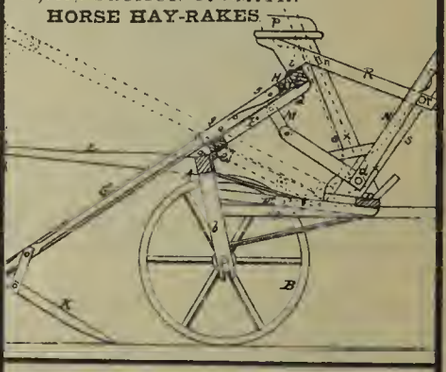
HAT-BLOCKING MACHINES.



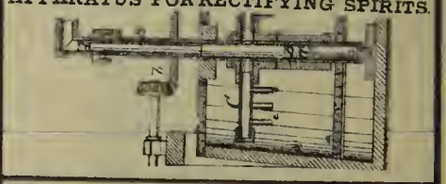
MILES H. SKIFF. WEATHER-STRIP.
103,788.



103,789, SOLOMON P. SMITH.
HORSE HAY-RAKES.

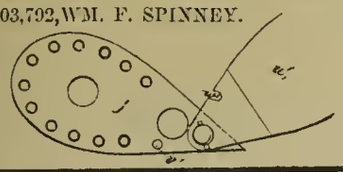


103,790, LUKE S. SNEDIKER.
APPARATUS FOR RECTIFYING SPIRITS.

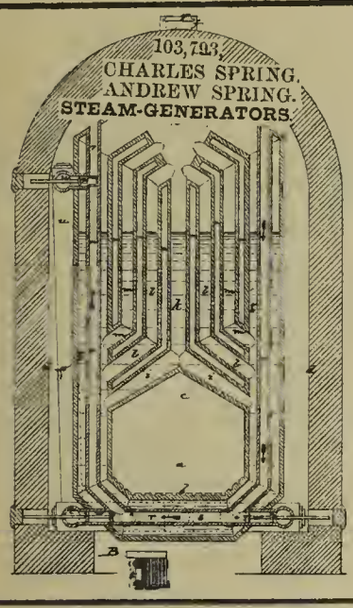


103,791, W. C. SPELLMAN. BROOM-HEAD.

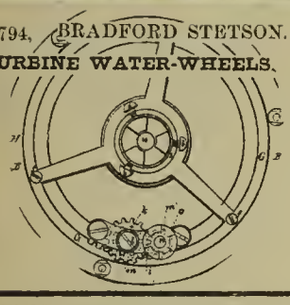
BOOT AND SHOE HEELING MACHINE.
103,792, WM. F. SPINNEY.



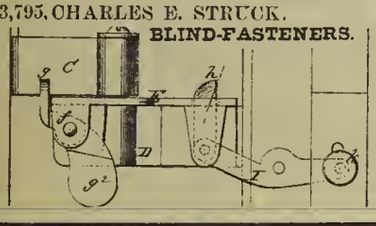
103,793,
CHARLES SPRING.
ANDREW SPRING.
STEAM-GENERATORS.



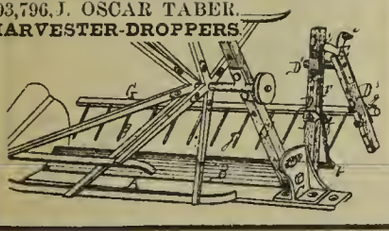
103,794, BRADFORD STETSON.
TURBINE WATER-WHEELS.



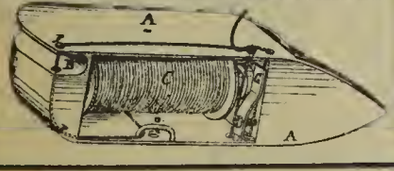
103,795, CHARLES E. STRUCK.
BLIND-FASTENERS.



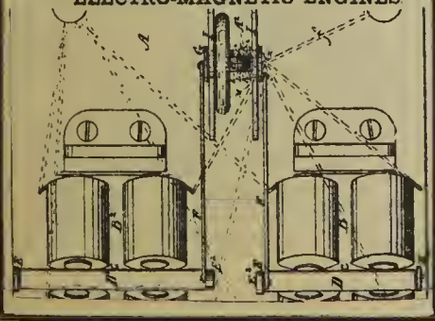
103,796, J. OSCAR TABER.
HARVESTER-DROPPERS.



103,797, WM. H. THAYER.
SHUTTLES FOR SEWING-MACHINES.



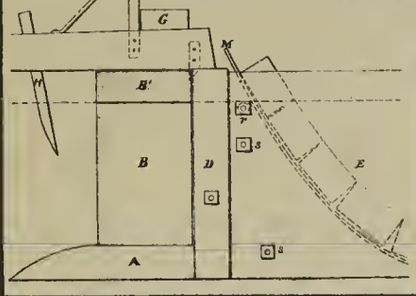
103,798, J. P. TIRRELL.
ELECTRO-MAGNETIC ENGINES.



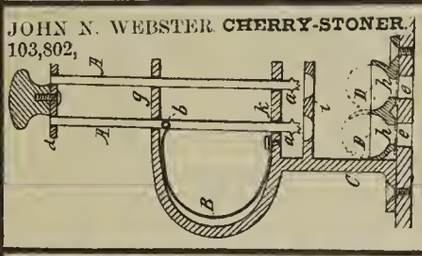
103,799. C. TOPPAN.
TREATING FABRICS TO RENDER THEM WATER PROOF.

103,800, WM. P. VAN DEURSEN.
COMPOSITION FOR EXTINGUISHING FIRES.

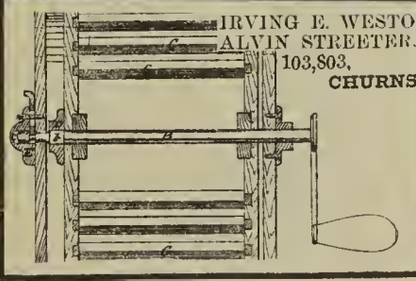
103,801, OLIVER W. VOORHIS.
SMITH H. MAPES.
WILLIAM M. VOORHIS.
COMBINED DITCHING AND TILE-LAYING MACHINE.



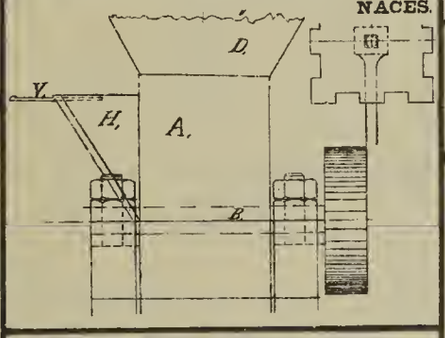
JOHN N. WEBSTER. CHERRY-STONER.
103,802,



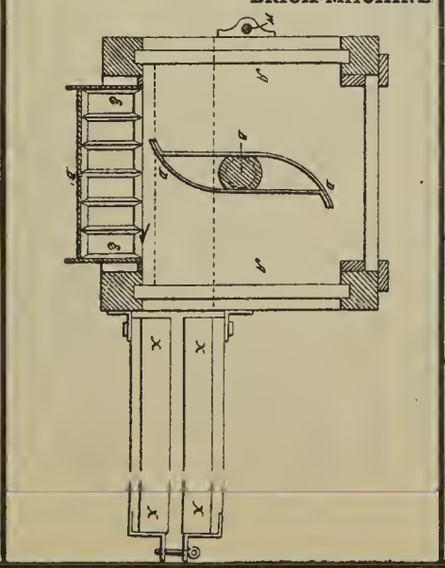
IRVING E. WESTON.
ALVIN STREETER.
103,803,
CHURNS.



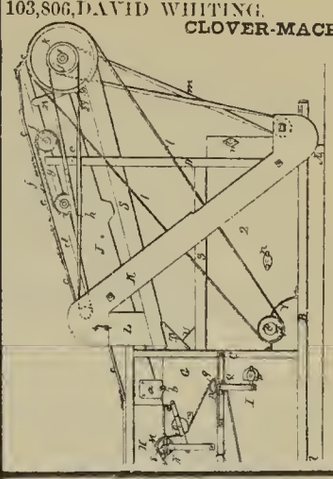
103,804, JAMES D. WHELPLEY.
JACOB J. STORER.
FEEDING PULVERIZED FUEL TO METALLURGIC AND OTHER FURNACES.



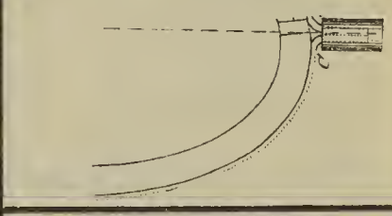
103,805, FRANKLIN WHITCOMB.
BRICK-MACHINE.



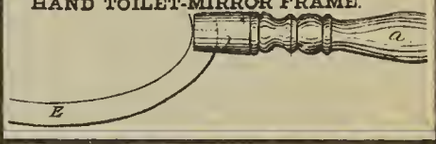
103,806, DAVID WHITING.
CLOVER-MACHINES.



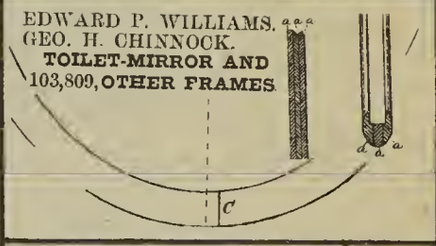
103,807, EDWARD P. WILLIAMS.
GEO. H. CHINNOCK.
HAND TOILET-MIRROR FRAME.



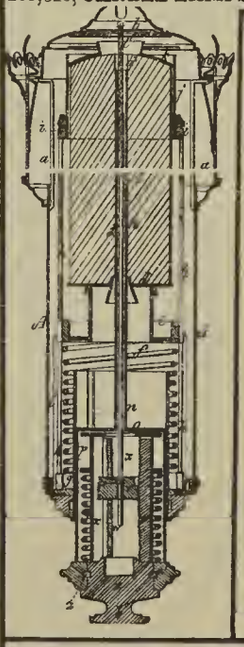
103,808, EDWARD P. WILLIAMS.
GEO. H. CHINNOCK.
HAND TOILET-MIRROR FRAME.



EDWARD P. WILLIAMS.
GEO. H. CHINNOCK.
TOILET-MIRROR AND OTHER FRAMES.
103,809,

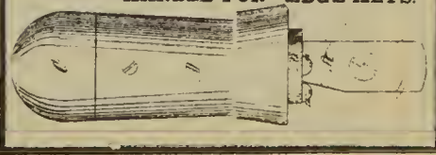


THOMAS SCOTT WILLIAMS.
FREEMAN AUGUSTUS TABER.
103,810, CANDLE-LAMPS.

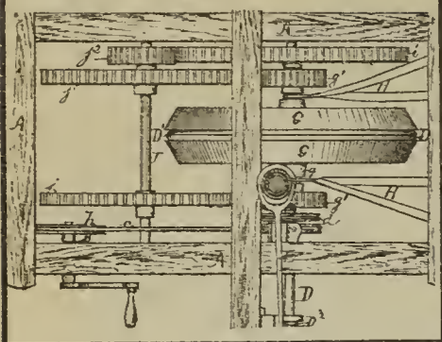


103,811, TURNER WILLIAMS.
EGG-BEATER.

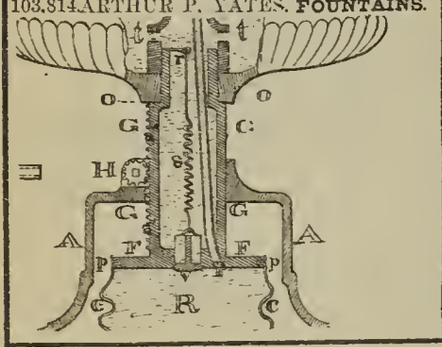
103,812, RICHARD A. WOODBERRY.
HANDLE FOR "EDGE-KEYS.



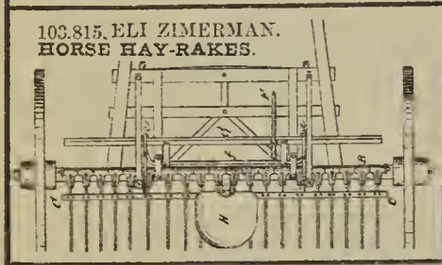
103,813. AMOS W. WOODWARD.
WATER-GOVERNOR.



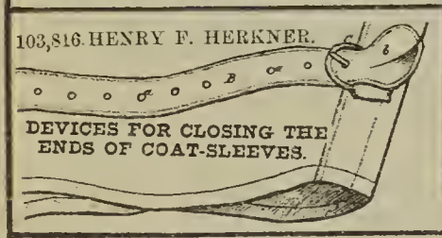
103,814. ARTHUR P. YATES. FOUNTAINS.



103,815. ELI ZIMERMAN.
HORSE HAY-RAKES.

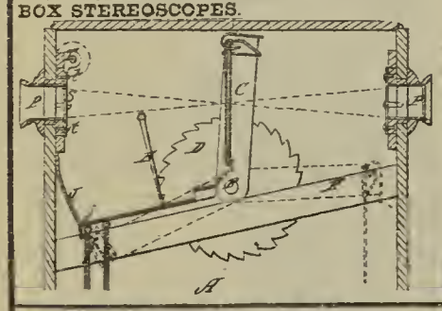


103,816. HENRY F. HERKNER.

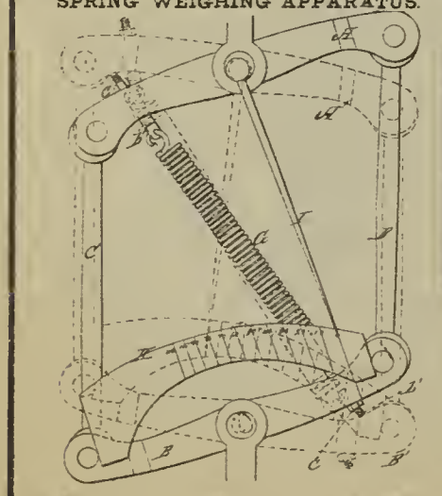


DEVICES FOR CLOSING THE ENDS OF COAT-SLEEVES.

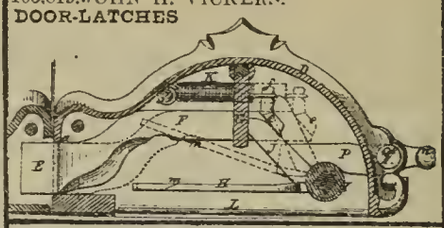
103,817. SILAS T. JENNINGS.
BOX STEREOSCOPES.



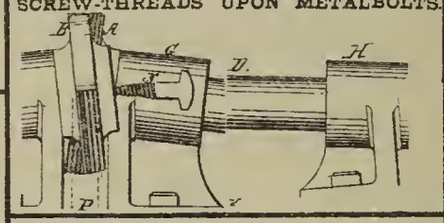
103,818. ANDREW MORSE.
SPRING WEIGHING APPARATUS.



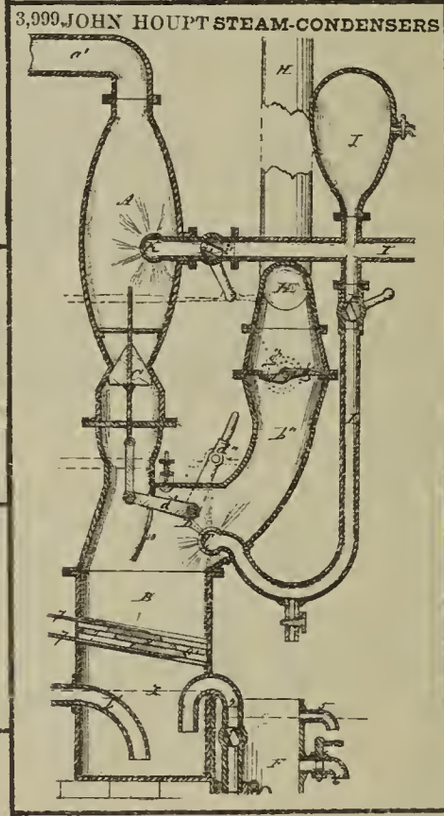
103,819. JOHN H. VICKERS.
DOOR-LATCHES



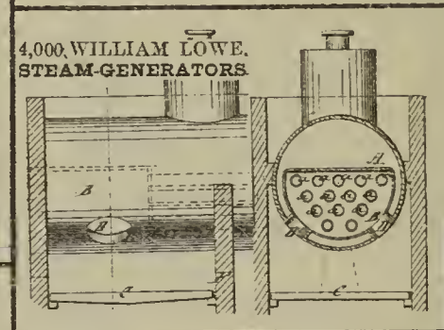
3,998. JOHN COCHRANE.
MACHINE FOR FORGING OR ROLLING SCREW-THREADS UPON METALBOLTS.



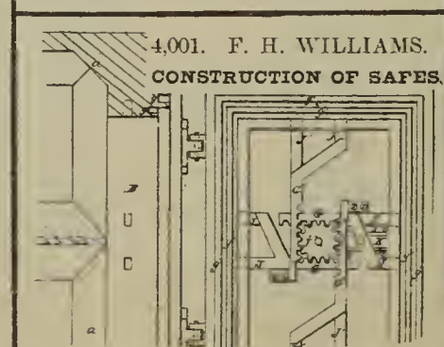
3,999. JOHN HOUPT STEAM-CONDENSERS



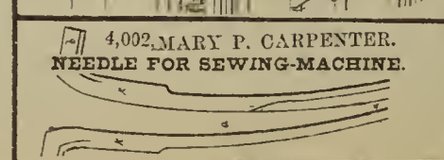
4,000. WILLIAM LOWE.
STEAM-GENERATORS.



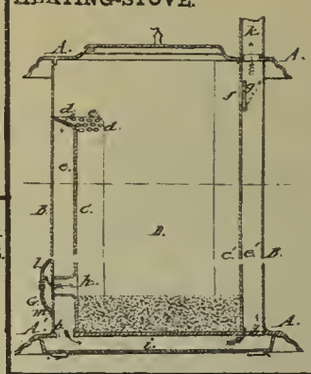
4,001. F. H. WILLIAMS.
CONSTRUCTION OF SAFES.



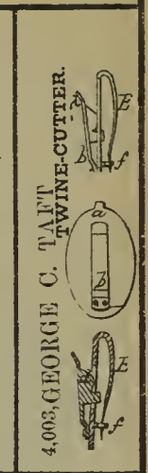
4,002. MARY P. CARPENTER.
NEEDLE FOR SEWING-MACHINE.



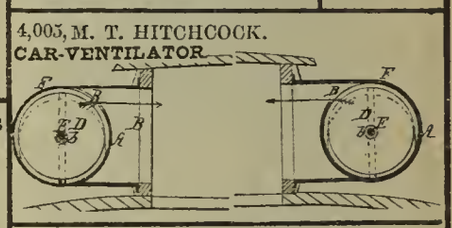
4,004. JOHN M. FRENCH.
HEATING-STOVE.



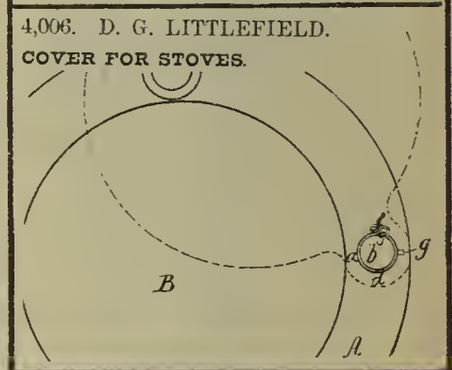
4,003. GEORGE C. TAFT.
TWINE-CUTTER.



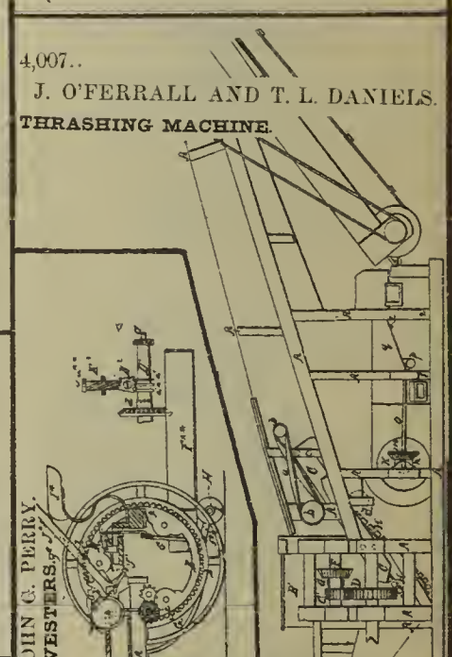
4,005. M. T. HITCHCOCK.
CAR-VENTILATOR



4,006. D. G. LITTLEFIELD.
COVER FOR STOVES.

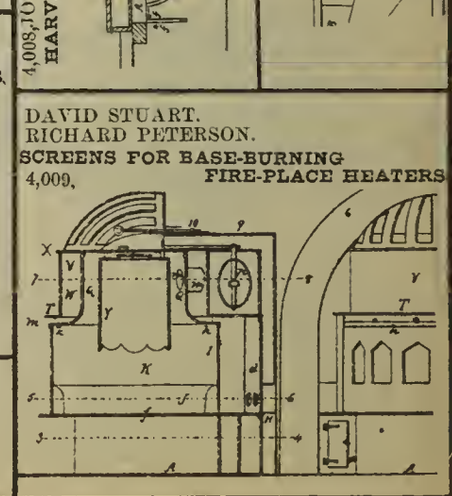


4,007. J. O'FERRALL AND T. L. DANIELS.
THRASHING MACHINE.



4,008. JOHN C. PERRY.
HARVESTERS.

DAVID STUART.
RICHARD PETERSON.
SCREENS FOR BASE-BURNING FIRE-PLACE HEATERS
4,009.



ILLUSTRATIONS OF PATENTS

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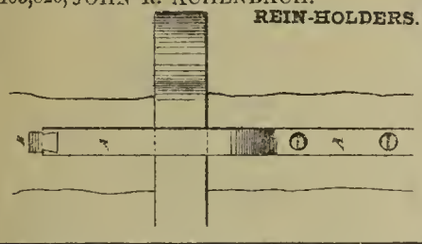
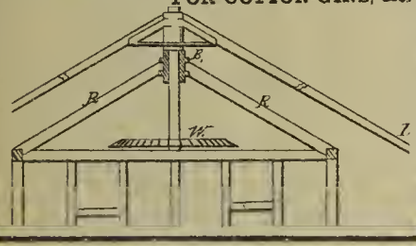
JUNE 7, 1870.

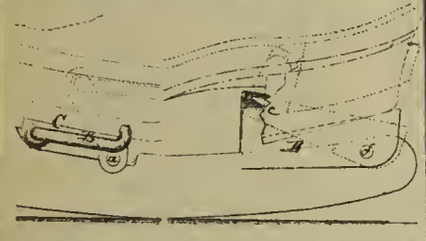
103,820, JOHN R. ACHENBACH.
REIN-HOLDERS.



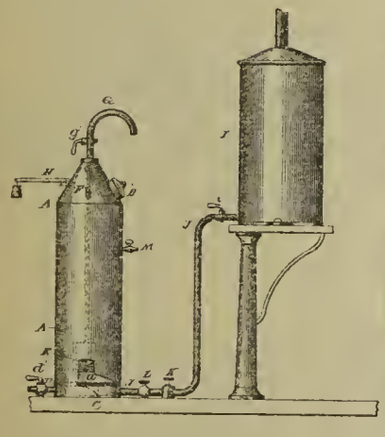
103,821, JAS. M. ALBERTSON.
CONSTRUCTION OF HORSE-POWER FOR COTTON-GINS, &c.



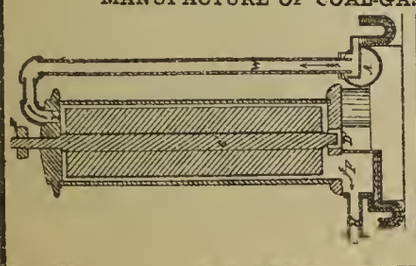
103,822, THOMAS ALMOND.
SKATE FASTENING.



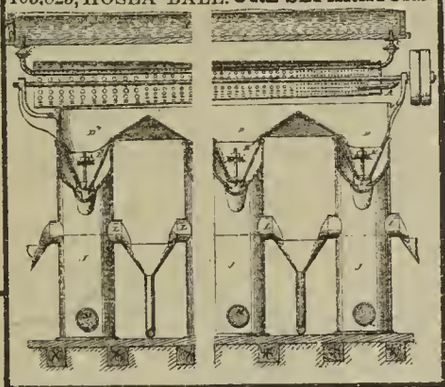
103,823, JOHN H. ARCHER.
DRAWING OFF TALLOW, LARD, &c., FROM RENDERING-TANKS.



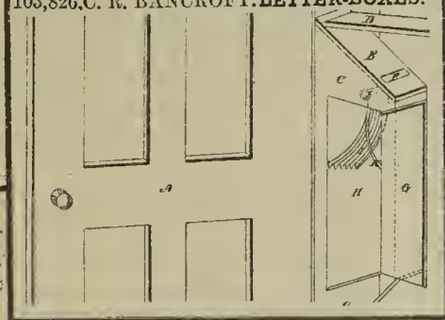
103,824, AVERY BABBETT.
WILLIAM W. BINNY.
CONDENSERS FOR THE MANUFACTURE OF COAL-GAS.



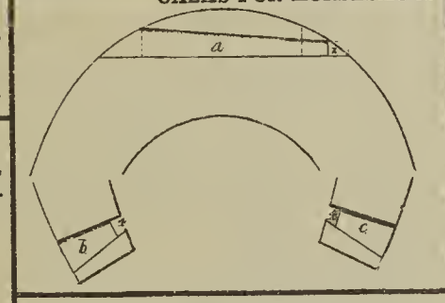
103,825, HOSEA BALL. **ORE-SEPARATORS.**



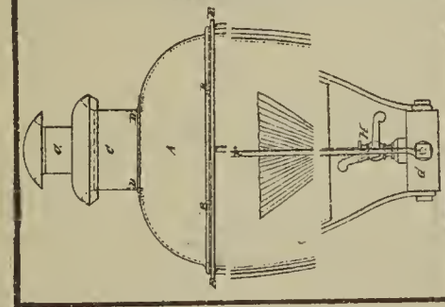
103,826, C. R. BANCROFT. **LETTER-BOXES.**



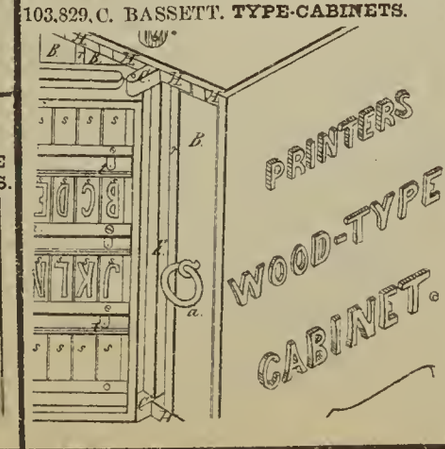
103,827, J. D. BARNUM.
CALKS FOR HORSESHOES



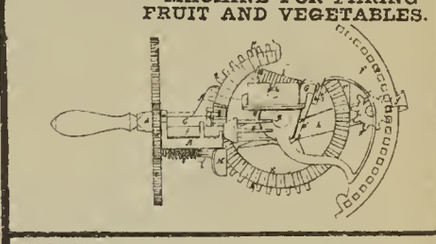
103,828, JOSEPH W. BARTLETT.
LANTERNS FOR STREETS.



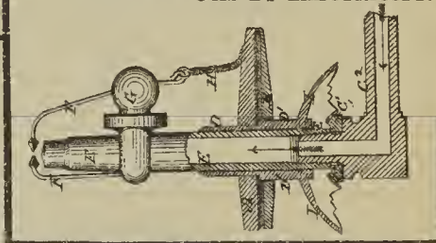
103,829, C. BASSETT. **TYPE-CABINETS.**



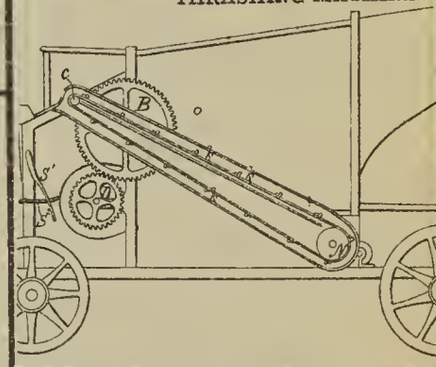
103,830, ASAHEL G. BATCHELDER.
MACHINE FOR PARING FRUIT AND VEGETABLES.



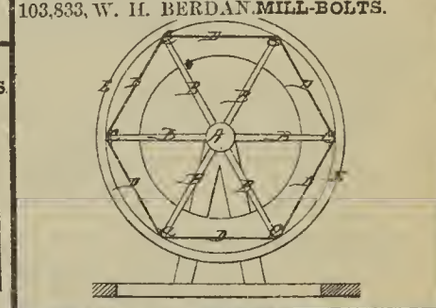
103,831, W. W. BATCHELDER.
APPARATUS FOR LIGHTING GAS BY ELECTRICITY.



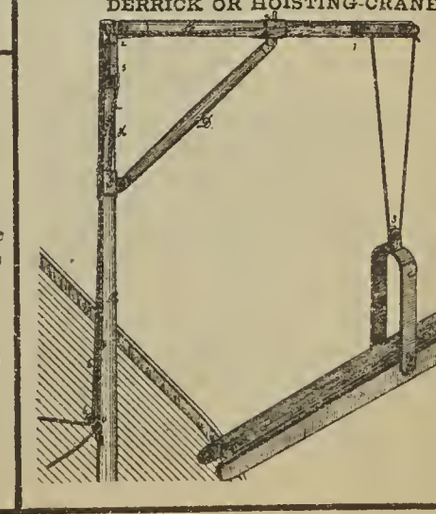
103,832, D. C. BAUGHMAN.
THRASHING-MACHINES.



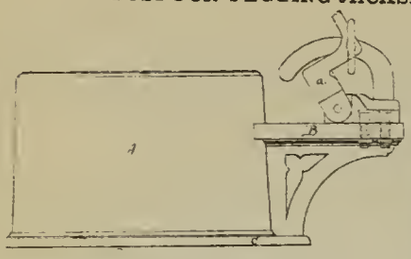
103,833, W. H. BERDAN. **MILL-BOLTS.**



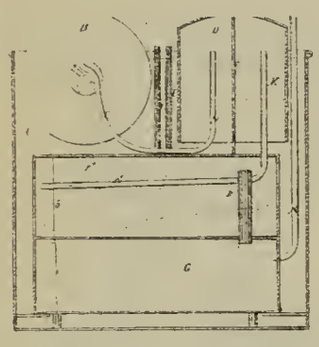
103,834, HANNIBAL S. BLOOD.
DERRICK OR HOISTING-CRANE.



103,835, DANIEL BOWKER. **POST FOR PEGGING-JACKS.**

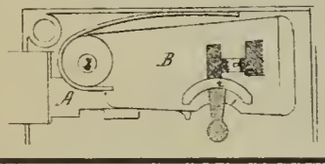


103,836, DAVID BOYLE. **PNEUMATIC GAS-MACHINES.**

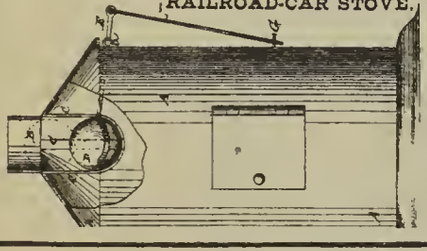


103,837 JAMES BRADY. **DOOR-KEYS.**

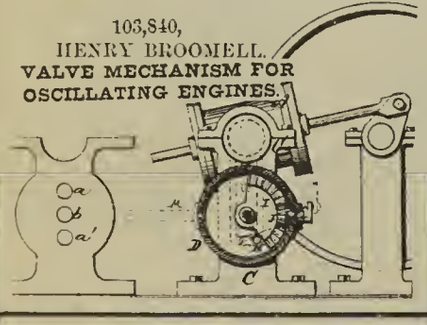
103,838, JAMES BRADY. **LOCKS.**



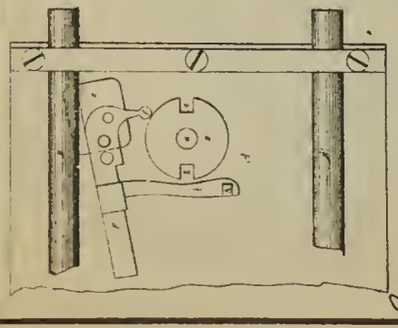
103,839, ADOLPH BRASE, LEMUEL SALLADEY. **RAILROAD-CAR STOVE.**



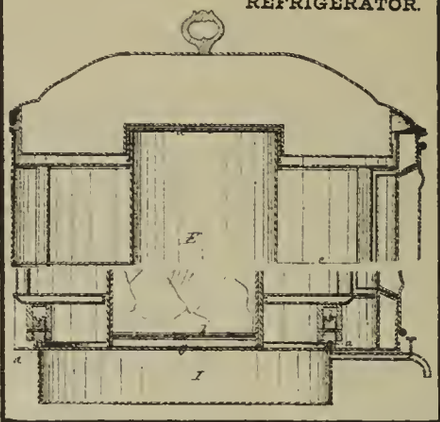
103,840, HENRY BROOMELL. **VALVE MECHANISM FOR OSCILLATING ENGINES.**



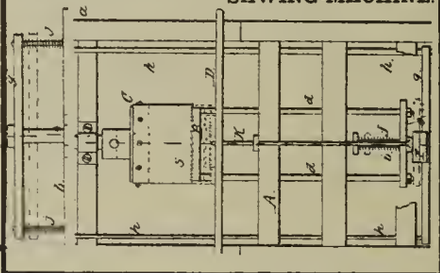
103,841, STEPHEN J. BURTON. **BOLTING DEVICES FOR SAFES.**



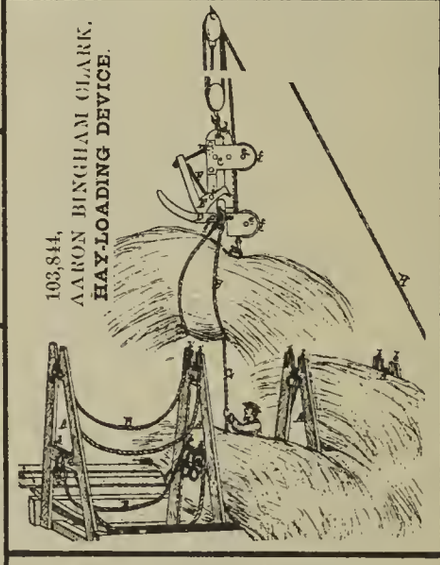
103,842, JAMES C. CAMPBELL. **REFRIGERATOR.**



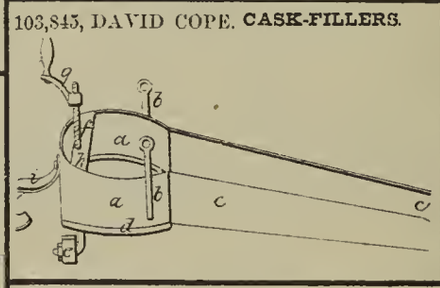
103,843, JAMES CHASE. **SAWING-MACHINE.**



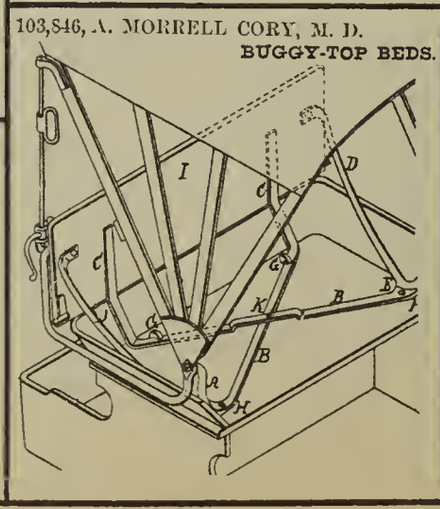
103,844, AARON BINGHAM CLARK. **HAY-LOADING DEVICE.**



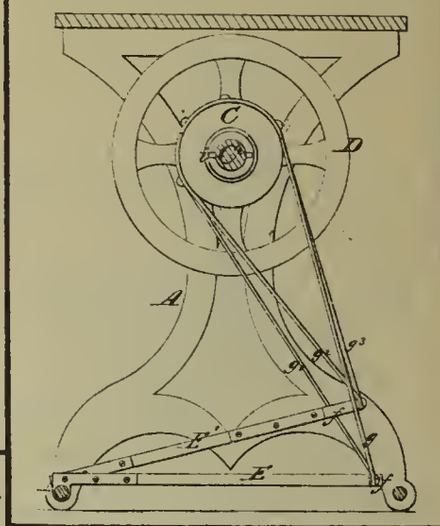
103,845, DAVID COPE. **CASK-FILLERS.**



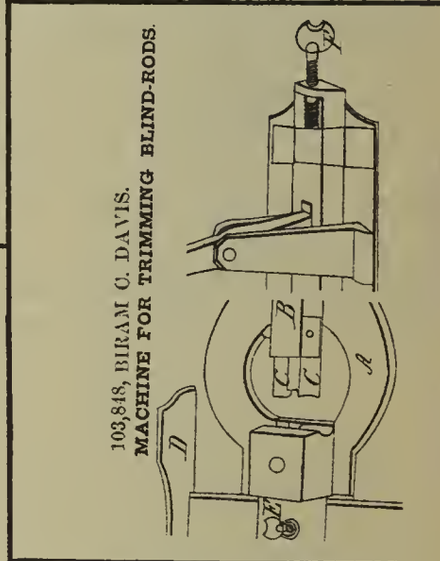
103,846, A. MORRELL CORY, M. D. **BUGGY-TOP BEDS.**



103,847. E. COWLES. **MECHANICAL MOVEMENT FOR SEWING MACHINES.**

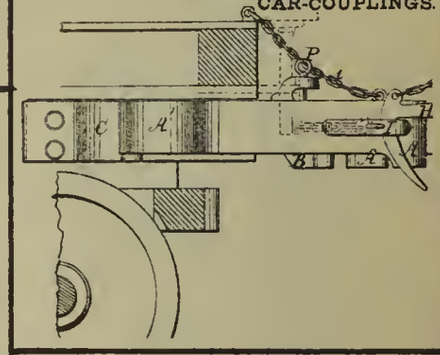


103,848, BIRAM G. DAVIS. **MACHINE FOR TRIMMING BLIND-RODS.**

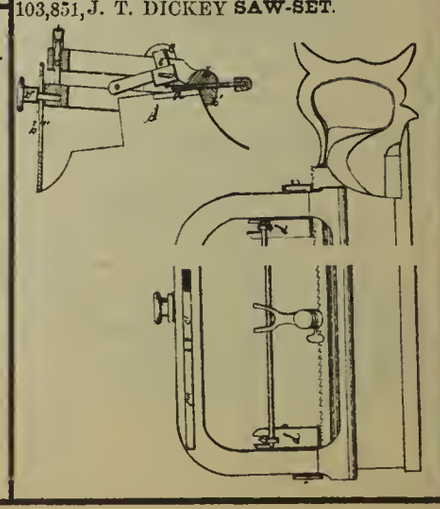


103,849, JOHN W. DAYTON **ROSETTES.**

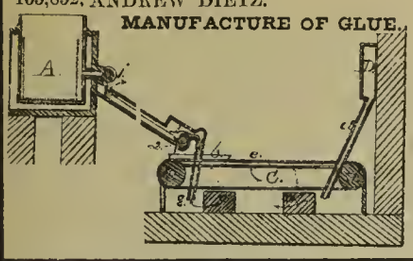
103,850, T. W. DEFREES. **CAR-COUPLINGS.**



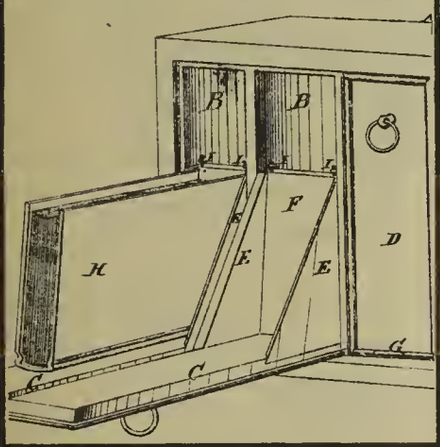
103,851, J. T. DICKEY **SAW-SET.**



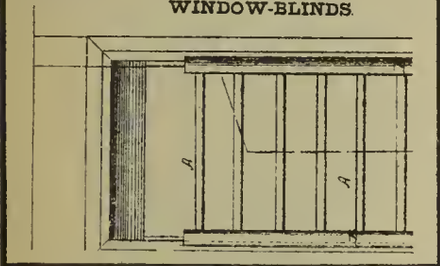
103,852, ANDREW DIETZ.
MANUFACTURE OF GLUE.



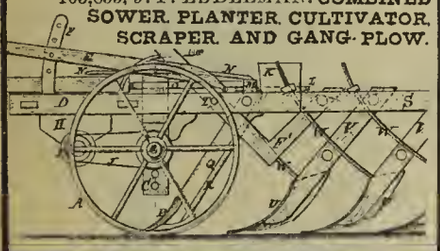
103,853, ROBERT L. DODGE.
BOOK-REPOSITORY.



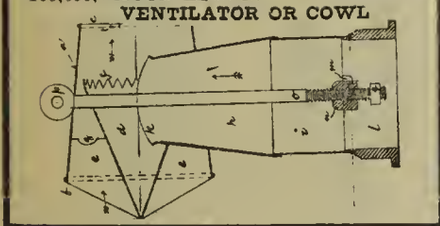
103,854, THOMAS DONATO.
WINDOW-BLINDS.



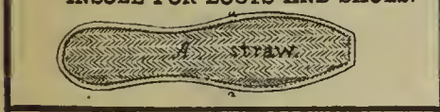
103,855, J. P. EDDLEMAN. COMBINED SOWER, PLANTER, CULTIVATOR, SCRAPER, AND GANG-PLOW.



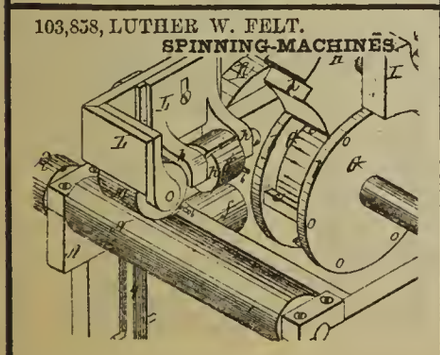
103,856, JACOB EDSON.
VENTILATOR OR COWL



103,857, PHILIPP M. ERNST.
INSOLE FOR BOOTS AND SHOES.



103,858, LUTHER W. FELT.
SPINNING-MACHINES.



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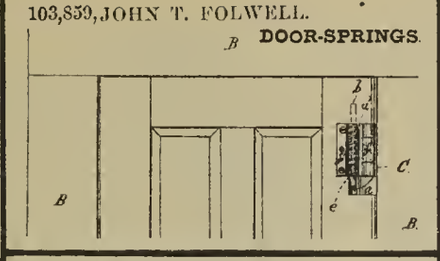
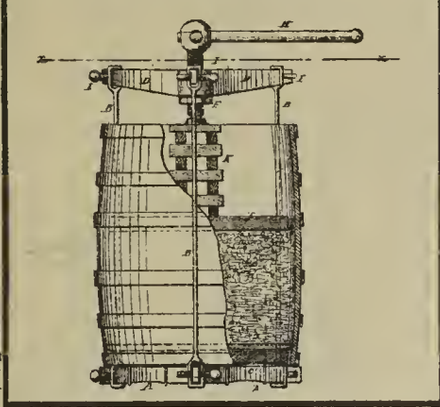
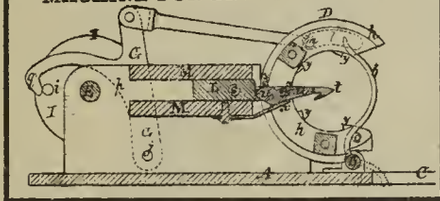
DOOR-SPRINGS.



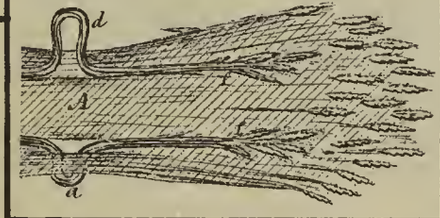
103,860, WM. S. FORD.
PORTABLE TOBACCO-PRESS.



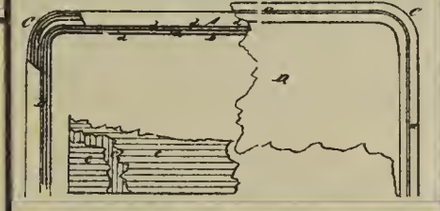
103,861. T. FOWLER.
MACHINE FOR BINDING GRAIN.



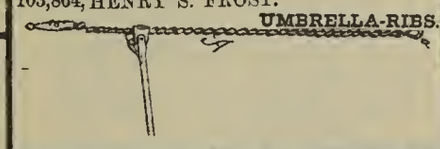
103,862. T. FOWLER.
METHOD OF BINDING GRAIN.



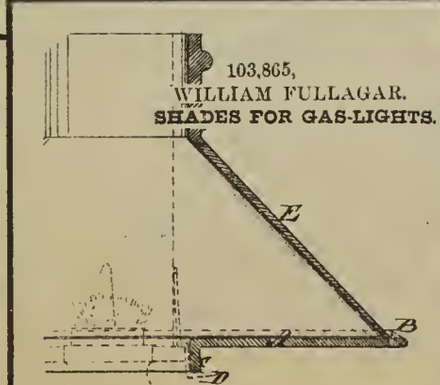
103,863. E. F. FRENCH.
COVER FOR SEWING-MACHINES.



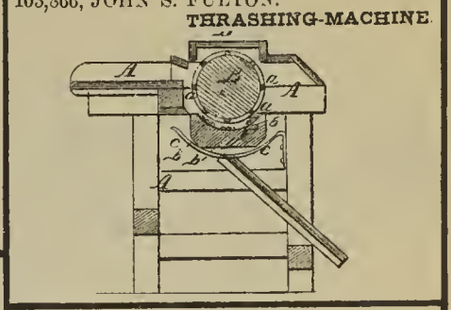
103,864, HENRY S. FROST.
UMBRELLA-RIBS.



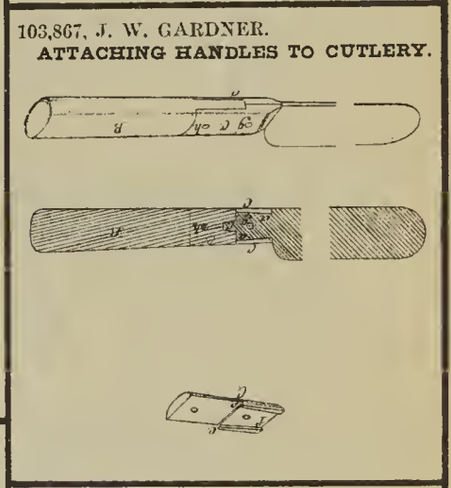
103,865,
WILLIAM FULLAGAR.
SHADES FOR GAS-LIGHTS.



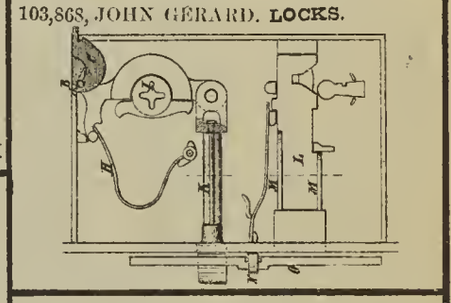
103,866, JOHN S. FULTON.
THRASHING-MACHINE.



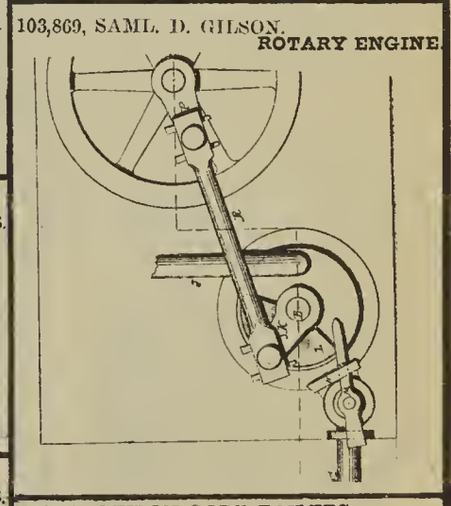
103,867, J. W. GARDNER.
ATTACHING HANDLES TO CUTLERY.



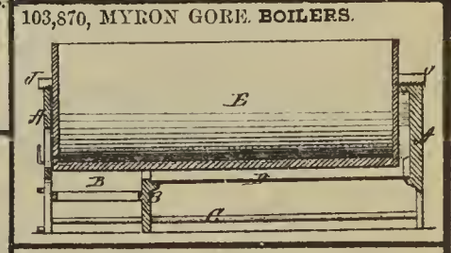
103,868, JOHN GERARD. LOCKS.



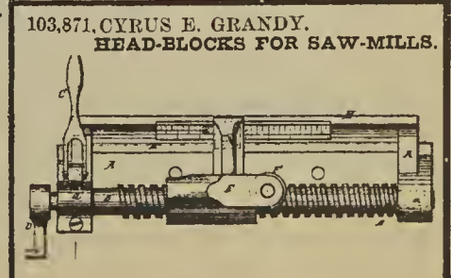
103,869, SAML. D. GILSON.
ROTARY ENGINE.



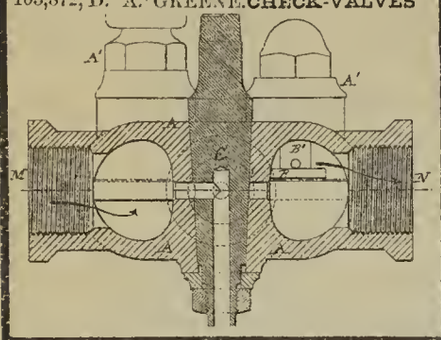
103,870, MYRON GORE. BOILERS.



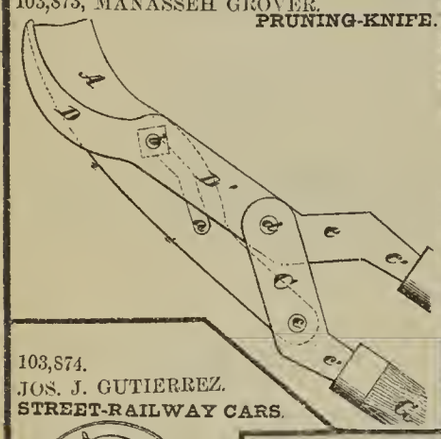
103,871, CYRUS E. GRANDY.
HEAD-BLOCKS FOR SAW-MILLS.



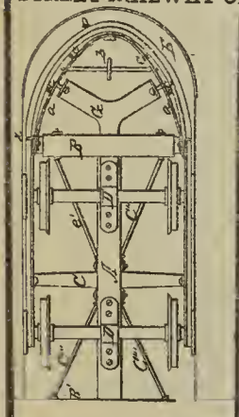
103,872, D. A. GREENE. CHECK-VALVES



103,873, MANASSEH GROVER. PRUNING-KNIFE.



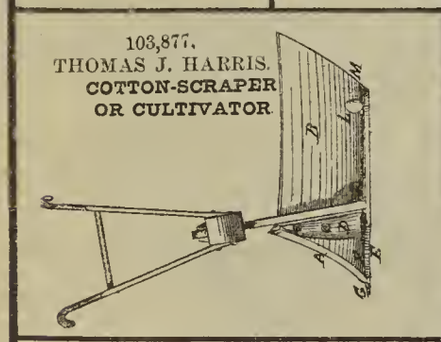
103,874. JOS. J. GUTIERREZ. STREET-RAILWAY CARS.



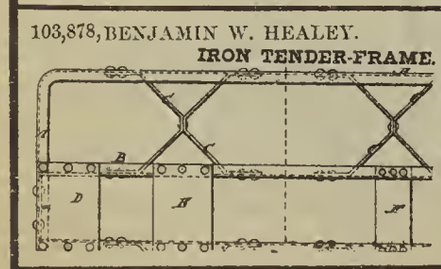
103,875, THOMAS S. HALL. ELECTRO-MAGNETIC SIGNAL APPARATUS FOR RAILROADS.

103,876, H. J. HAMILTON. COMPOUND TROCHE OF BUCHU

103,877, THOMAS J. HARRIS. COTTON-SCRAPER OR CULTIVATOR.

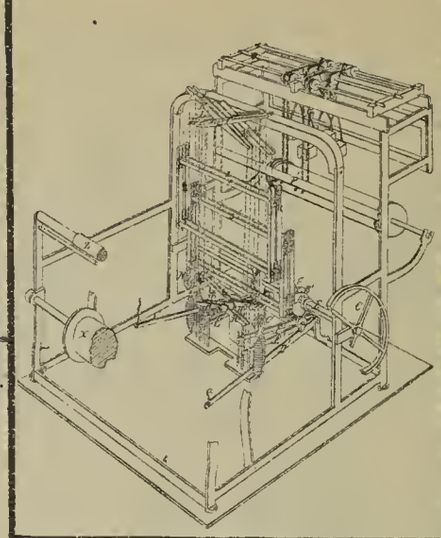


103,878, BENJAMIN W. HEALEY. IRON TENDER-FRAME.

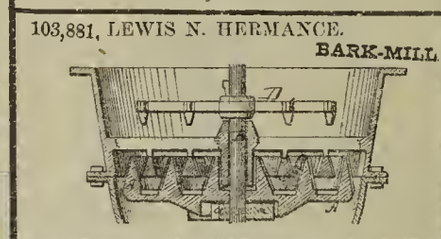


103,879, NICHOLAS HEINTZELMAN. PROCESS FOR MAKING MOLDS FOR CASTINGS OF ALTO-RELIEVO FIGURES.

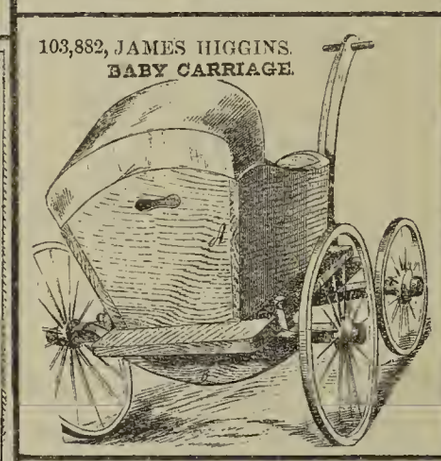
103,880, JOHN JACOB HERBERT. LOOMS.



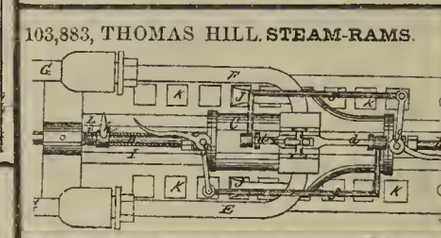
103,881, LEWIS N. HERMANCE. BARK-MILL.



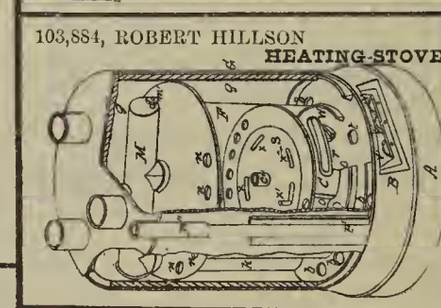
103,882, JAMES HIGGINS. BABY CARRIAGE.



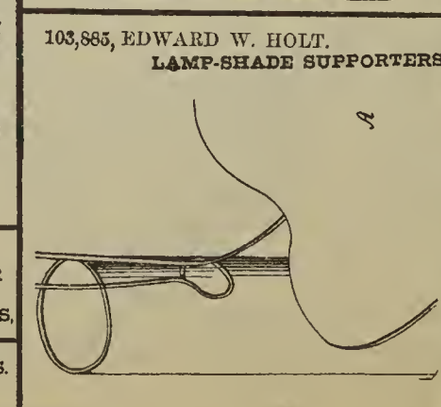
103,883, THOMAS HILL. STEAM-RAMS.



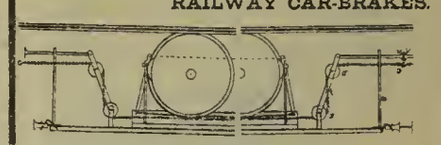
103,884, ROBERT HILLSON HEATING-STOVE.



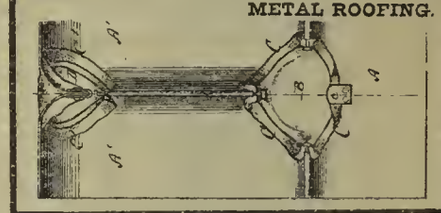
103,885, EDWARD W. HOLT. LAMP-SHADE SUPPORTERS.



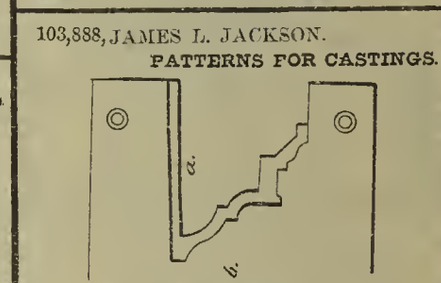
103,886, THOMAS HOPPER. HATFIELD HOPPER. CHANDLER C. COATS. RAILWAY CAR-BRAKES.



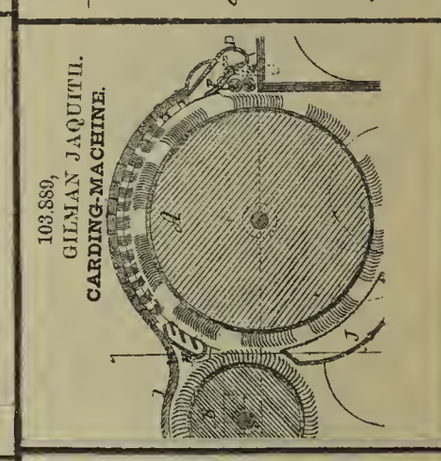
103,887, SEYMOUR HUGHES. METAL ROOFING.



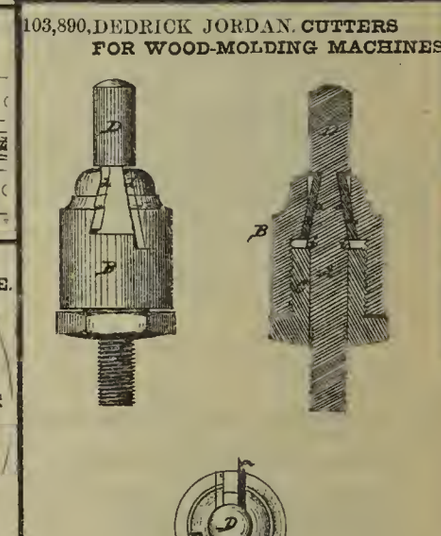
103,888, JAMES L. JACKSON. PATTERNS FOR CASTINGS.



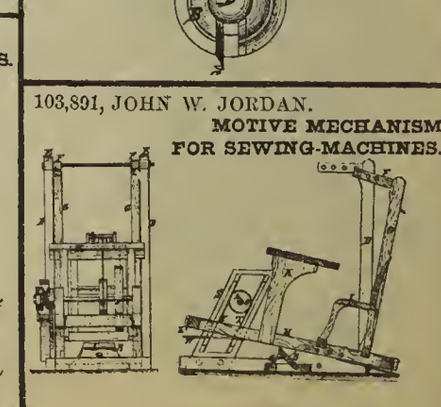
103,889, GILMAN JAQUITH. CARDING-MACHINE.

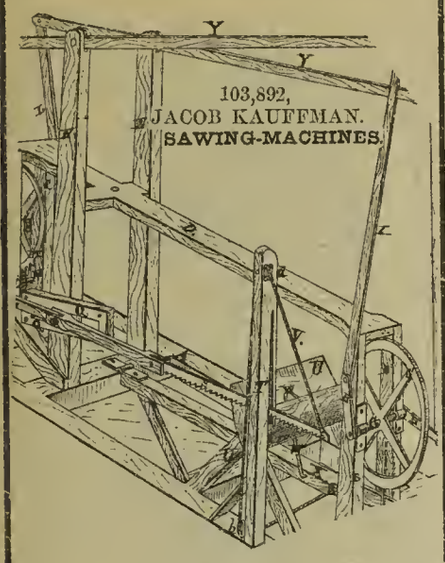


103,890, DEDRICK JORDAN. CUTTERS FOR WOOD-MOLDING MACHINES.



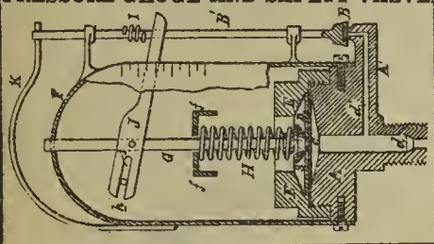
103,891, JOHN W. JORDAN. MOTIVE MECHANISM FOR SEWING-MACHINES.



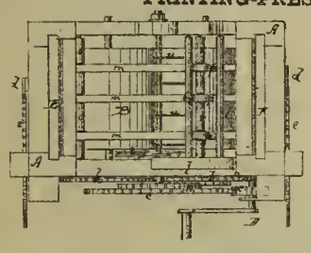


103,892, JACOB KAUFFMAN. SAWING-MACHINES.

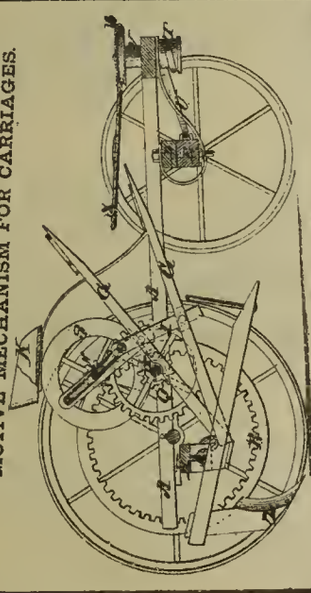
103,893, ARTEMAS A. KENT. PRESSURE-GAUGE AND SAFETY-VALVE.



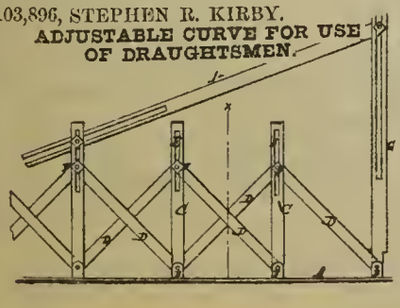
103,894, WILLIAM ANDERSON KERR. PRINTING-PRESSES.



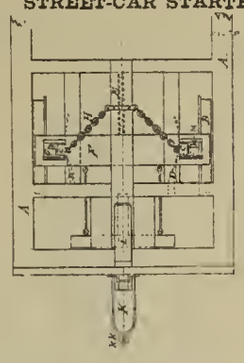
103,895, GEORGE KILNER, FRANCES H. SIMMONS. MOTIVE MECHANISM FOR CARRIAGES.



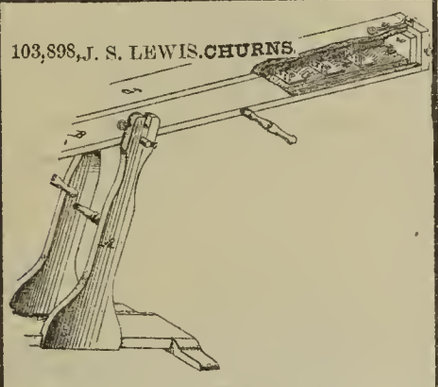
103,896, STEPHEN R. KIRBY. ADJUSTABLE CURVE FOR USE OF DRAUGHTSMEN.



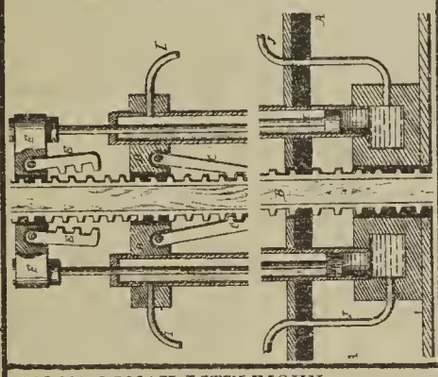
103,897, BENJAMIN LEPPER. STREET-CAR STARTERS.



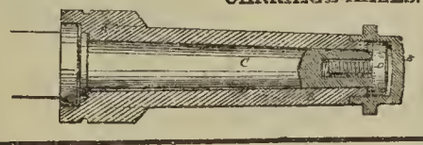
103,898, J. S. LEWIS. CHURNS.



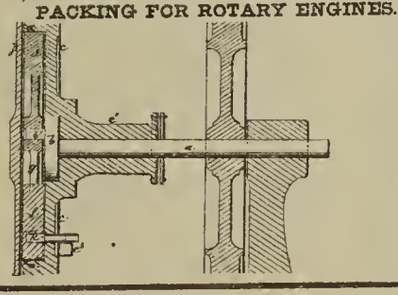
103,899, SAMUEL LEWIS. SUBMARINE DRILLING APPARATUS.



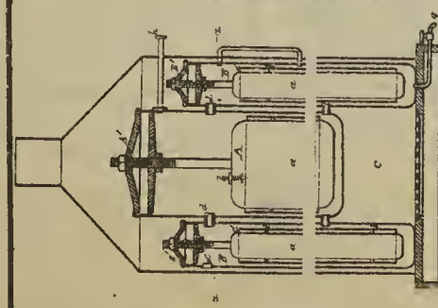
103,900, LOMAX LITTLEJOHN. CARRIAGE-AXLES.



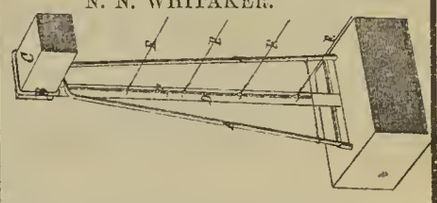
103,901, JOHN LOADER. PACKING FOR ROTARY ENGINES.



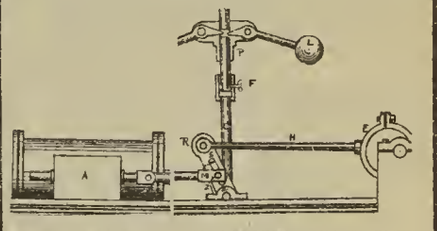
103,902, JOHN LOADER. WILLIAM HENRY CHILD. STEAM-GENERATORS.



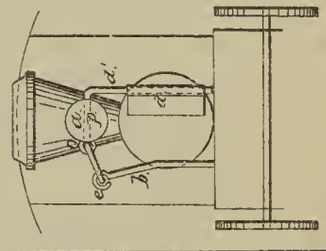
103,903, L. E. LOCKLING. N. N. WHITAKER. FENCE.



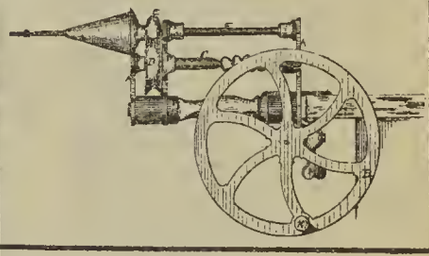
103,904, G. E. LONG. VARIABLE CUT-OFF VALVE-GEAR.



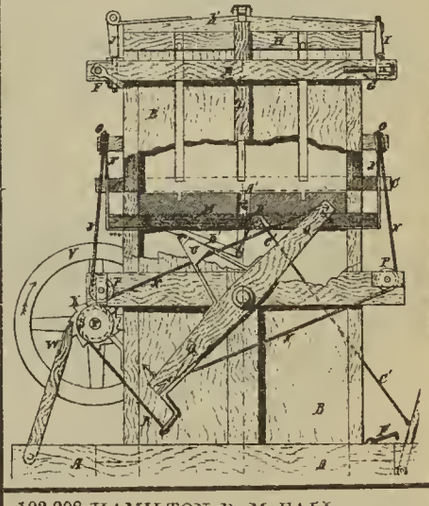
103,905, ROGER W. LOVE. LOCOMOTIVE HEAD-LIGHTS.



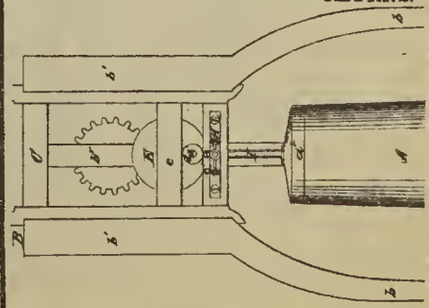
103,906, WM. H. MAIN. HAND-SPINNING MACHINE.



103,907, E. J. MARSTERS. BALING-PRESSES.

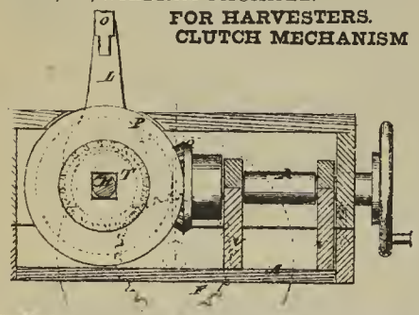


103,908, HAMILTON B. McFALL. CHURNS.



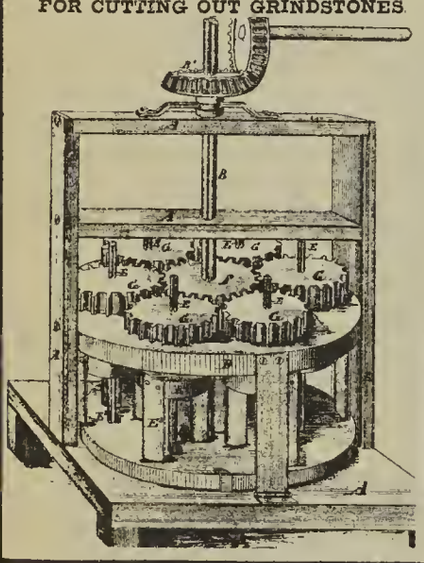
103,909, PETER McMANUS.
GEO. W. LATIMER.
PASTE FOR POLISHING METALS.

103,910, WILLIAM MICHAEL.
FOR HARVESTERS. CLUTCH MECHANISM

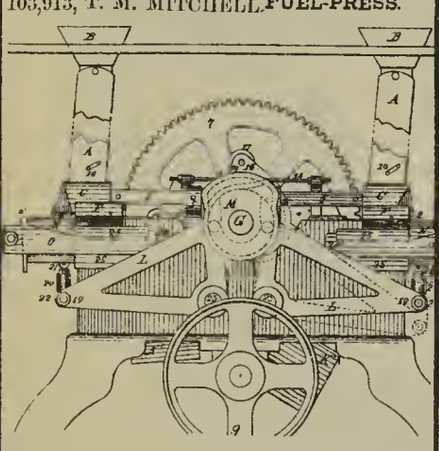


103,911, MAHLON MILLER.
IRON BRIDGES

103,912, J. E. MITCHELL. **MACHINE FOR CUTTING OUT GRINDSTONES.**



103,913, T. M. MITCHELL. **FUEL-PRESS.**

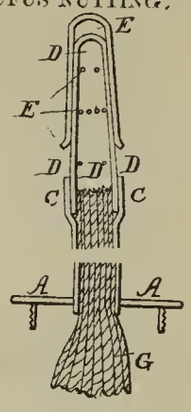


103,915, HIAL H. NEWTON. **TIDY-PINS.**

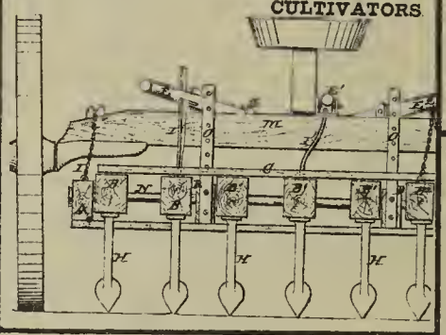
103,914, E. S. MORTON. **NAIL-HAMMERS.**

103,916, ALPHEUS P. NOYES.
DOOR-MAT.

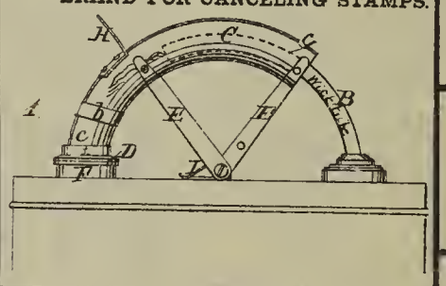
103,917, RUFUS NUTTING.
LAMP GAS-BURNER.



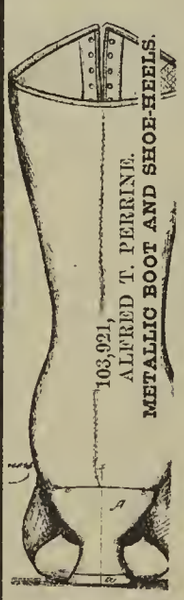
103,918, HENRY W. OSTROM.
CULTIVATORS.



103,919, AMOS D. OWEN.
BRAND FOR CANCELING STAMPS.

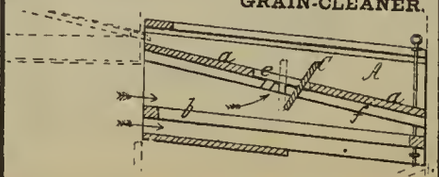


103,921, ALFRED T. PERRINE.
METALLIC BOOT AND SHOE-HEELS.

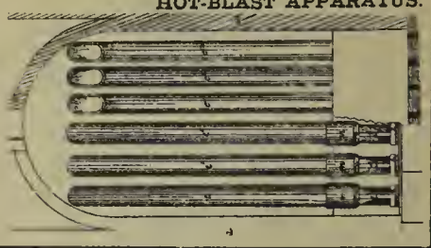


103,920, JOSHUA J. PERCIVAL.
FIRE-TONGS.

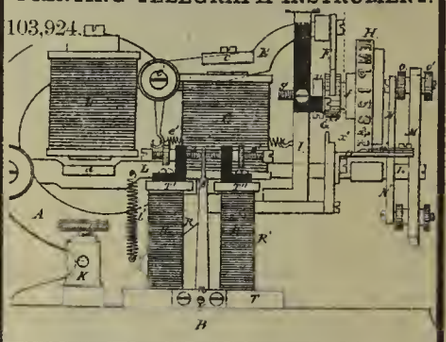
103,922, CHAUNCEY PERRY.
GRAIN-CLEANER.



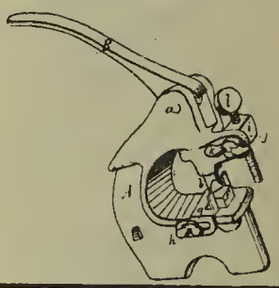
103,923, JONAS J. PIERCE.
HOT-BLAST APPARATUS.



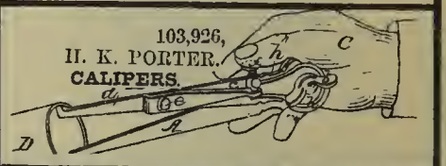
F. L. POPE AND T. A. EDISON.
PRINTING TELEGRAPH INSTRUMENT.
103,924.



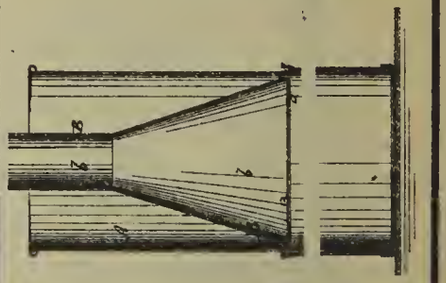
103,925, HENRY K. PORTER. **SAW-SET.**



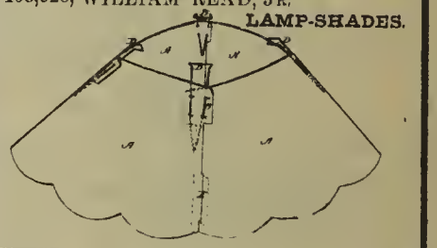
103,926, H. K. PORTER.
CALIPERS.



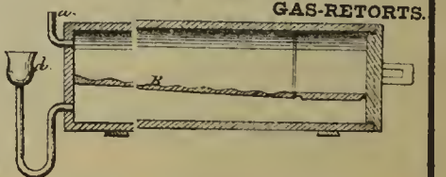
103,927, CHRISTOPHER T. PROVOST.
APPARATUS FOR PACKING PRESERVES



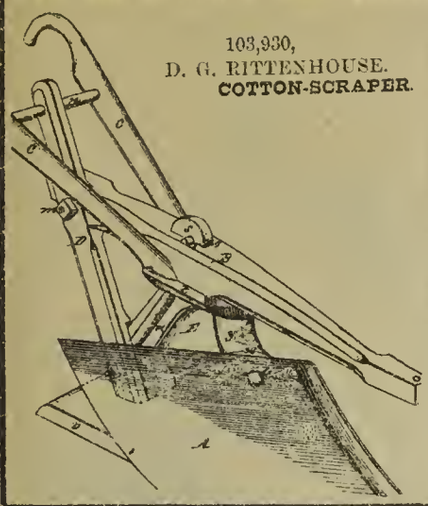
103,928, WILLIAM READ, JR.
LAMP-SHADES.



103,929, JAMES RIGBY.
PHILIP A. PALMER.
GAS-RETORTS.

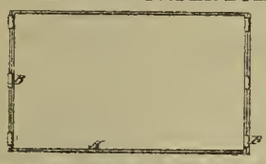


103,930, D. G. RITTENHOUSE. COTTON-SCRAPER.

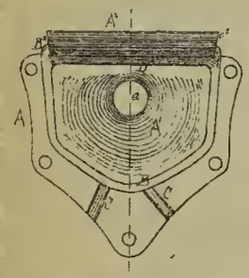


103,931, WILLIAM H. ROGERS. FUSE-COMPOSITION.

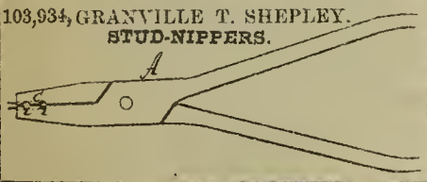
103,932, JOHN ROOT. PAPER-BOX.



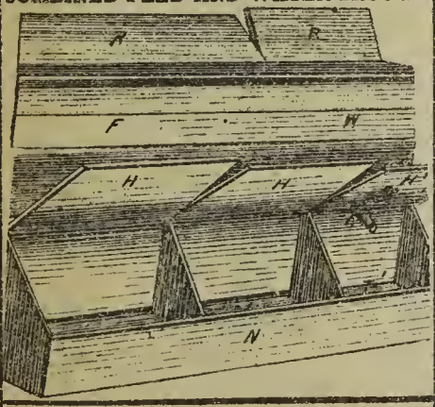
103,933, H. W. SHEPARD. MILK-CAN HANDLES



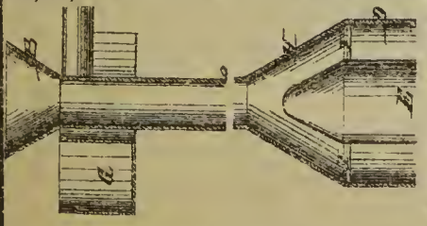
103,934, GRANVILLE T. SHEPLEY. STUD-NIPPERS.



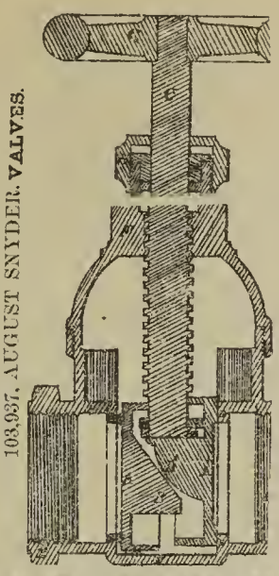
103,935, JOSEPH SHERMAN. COMBINED FEED AND WATER-TROUGH.



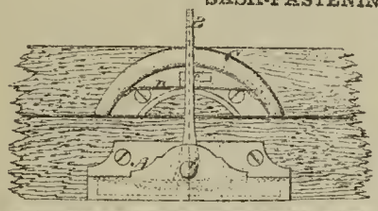
103,936, JAMES L. SMITH. CORN-DROPPER.



103,937, AUGUST SNYDER. VALVES.

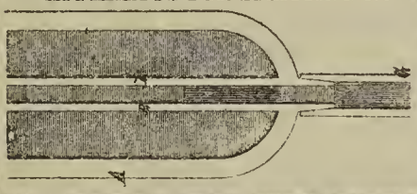


103,938, WILLIAM B. SNYDER. ROBERT HUBBARD. SASH-FASTENING.

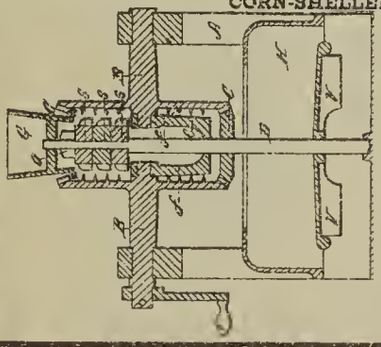


103,939, G. F. TAYLOR. GEARING FOR CARPET-SWEEPING MACHINES.

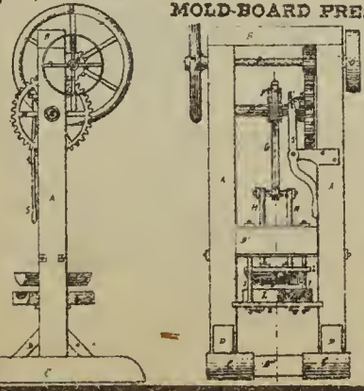
103,940, EBER THAYER. APPARATUS FOR SPLITTING ROCK.



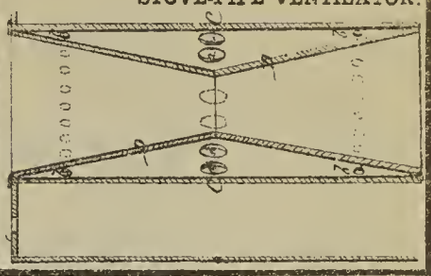
103,941, AMBROSE B. THOMPSON. CORN-SHELLERS.



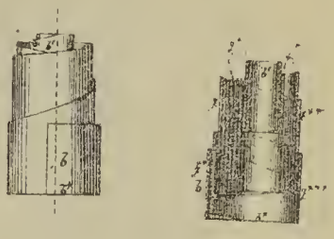
103,942, ANDREW THOMPSON. MOLD-BOARD PRESS.



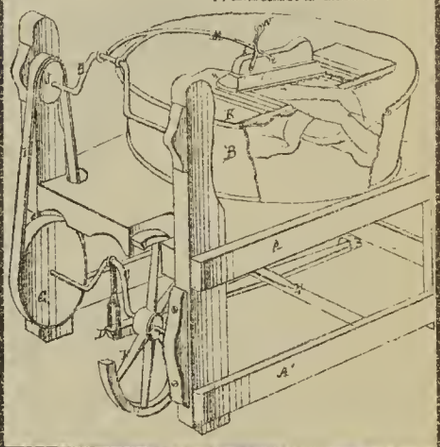
103,943, DAVID V. THRIFT. STOVE-PIPE VENTILATOR.



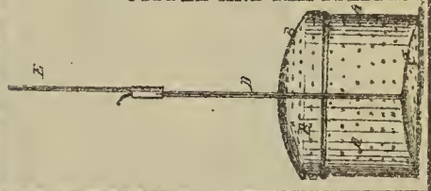
103,944, JOSEPH TRENT. VOLUTE SPRING.



103,945, DAVID VOGT. WASHING-MACHINE.



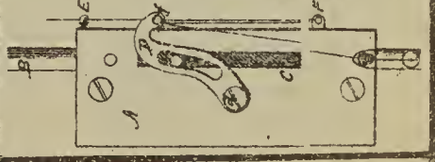
103,946, JOSEPH B. WAKEMAN. ALONZO M. BUSH. COFFEE AND TEA-STEEPER.



103,947, W. H. WALENN. THE ELECTRO-DEPOSITION OF COPPER AND BRASS ON IRON AND STEEL.

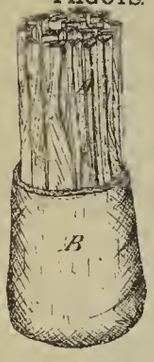
103,948, EDWARD WELLS. CONCEALED HINGES FOR LANDAU CARRIAGES.

103,949, WASHINGTON WENDELL. THREAD-CONTROLLER FOR SEWING-MACHINE.

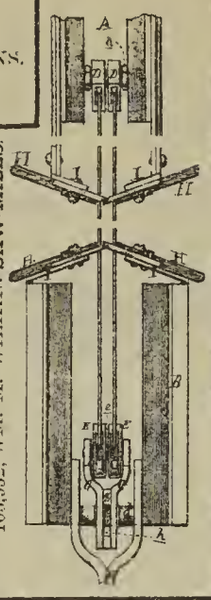


103,950, L. H. WHITNEY. BOOT AND SHOES.

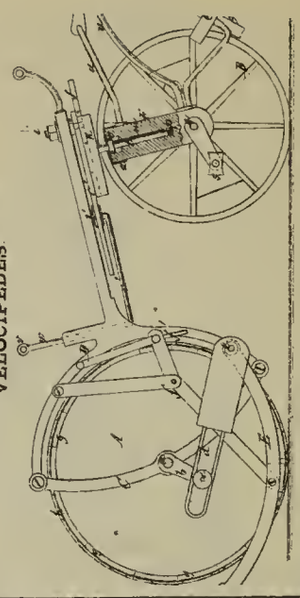
103,951, WILLIAM J. WIGGINS, CHARLES STOUT. **FIRE-KINDLING FAGOTS.**



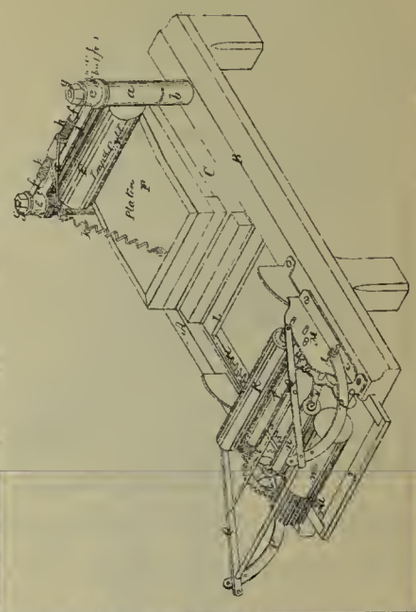
103,952, WM. M. WILKIN. **SAW-MILLS.**



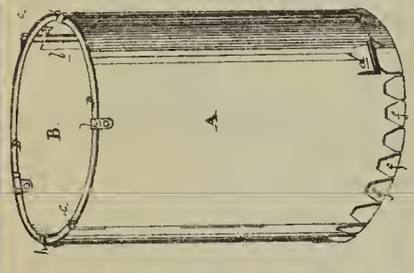
103,957, ARTHUR M. ALLEN. **VELOCIPEDES.**



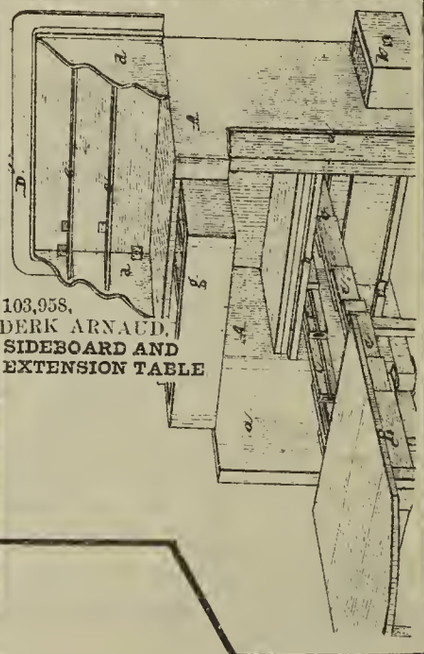
103,961, AMOS H. BANGLE. **PRINTING-PRESSES.**



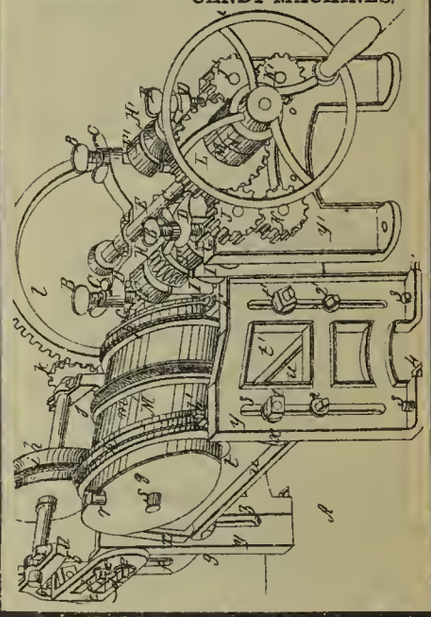
103,953, FRANK KNOLTON WINSOR. **LIME-BARRELS OR KIBBLES.**



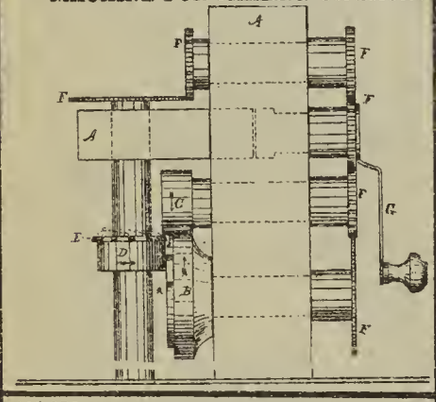
103,958, DERK ARNAUD. **SIDEBOARD AND EXTENSION TABLE.**



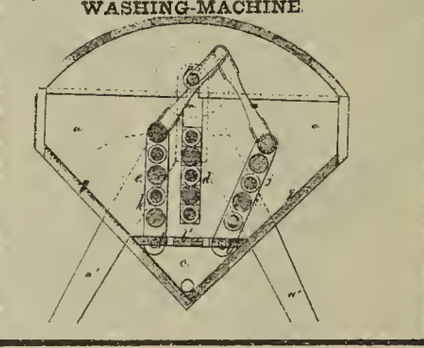
103,962, JESSE S. BATCHELDER. **CANDY-MACHINES.**



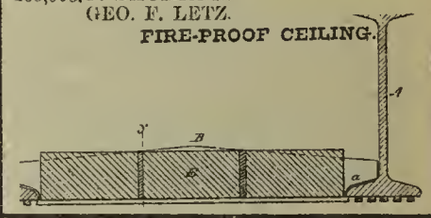
103,954, ALVIA L. WOODING. **MACHINE FOR MAKING OX-SHOES.**



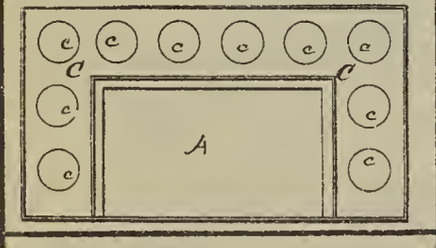
103,959, FRANK M. BACON. **WASHING-MACHINE.**



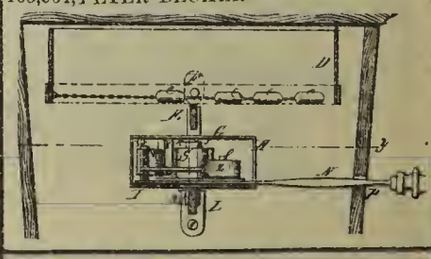
103,963, F. BAUMANN, GEO. F. LETZ. **FIRE-PROOF CEILING.**



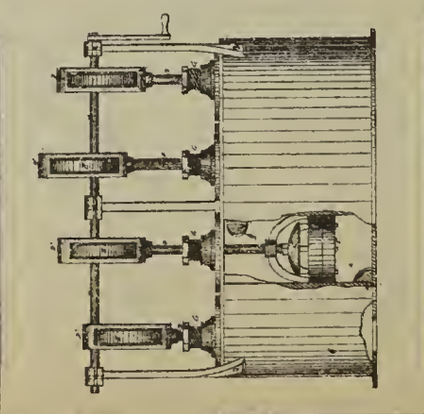
103,955, FREDERICK ZEITZ. **APPARATUS FOR COOLING ALE, BEER.**



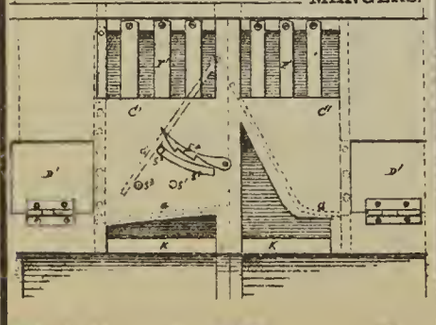
103,964, PETER BECKER **FLOUR-SIFTER.**



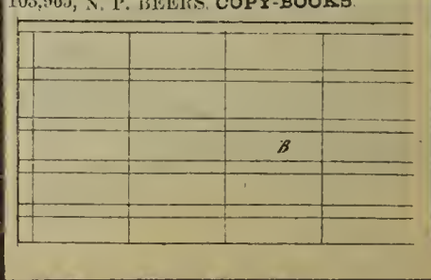
103,960, B. C. BAILEY. **PUMPS.**



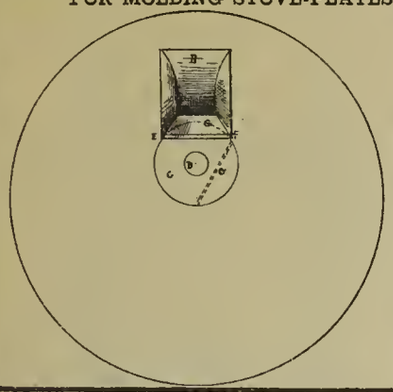
103,956, CHESTER E. ALBRIGHT. **MANGERS.**

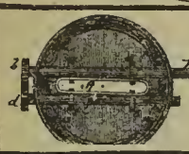


103,965, N. P. BEERS. **COPY-BOOKS.**



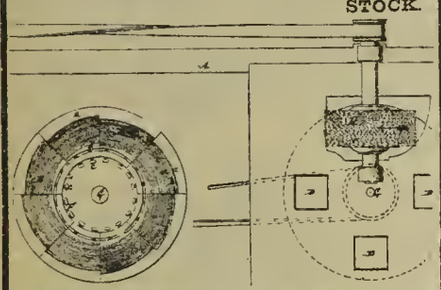
103,966, RICHD. W. BELSON, **PATTERNS FOR MOLDING STOVE-PLATES.**



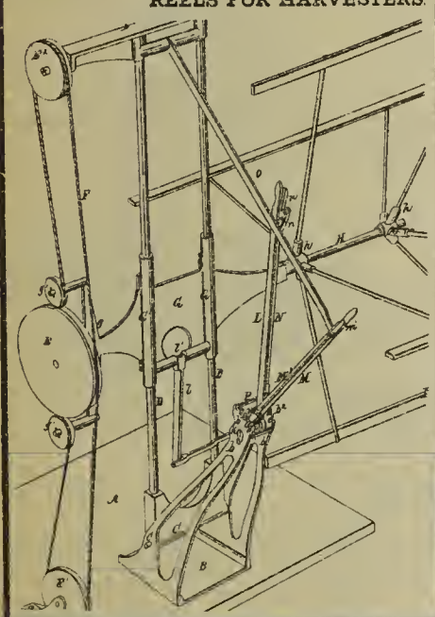


103,967, G. BERKSTRESSER. **LAMP-BURNERS.**

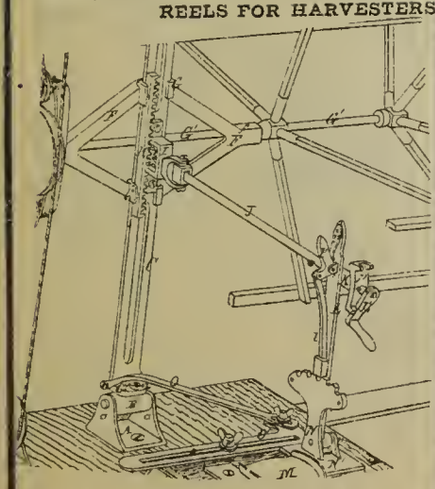
103,968. G. H. BLISS AND M. REES. **MANUFACTURE OF WOOD PAPER STOCK.**



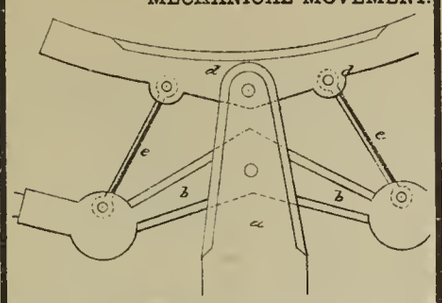
103,969, J. W. BOPE. **REELS FOR HARVESTERS.**



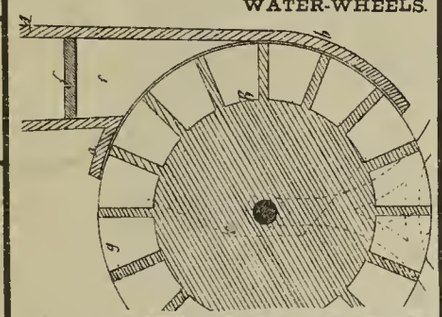
103,970, J. W. BOPE. **REELS FOR HARVESTERS.**



103,971, NATHL. BRADFORD. **MECHANICAL MOVEMENT.**



103,972, WILLIAM BRAIDWOOD, HORATIO JONES HEWITT. **WATER-WHEELS.**



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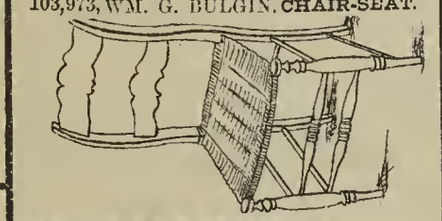
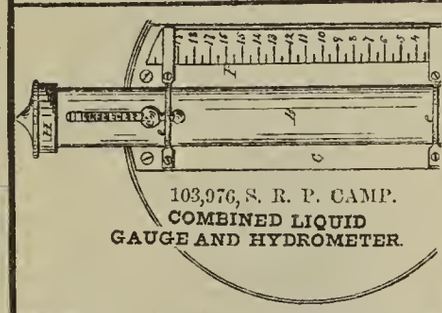


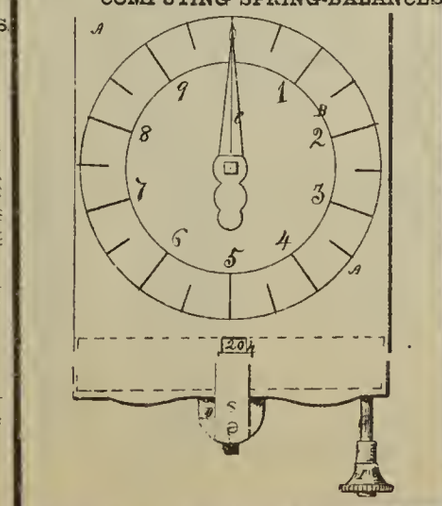
103,974, WM. H. BURRIDGE. **COMPOUND FOR PREVENTING AND REMOVING INCRUSTATION IN STEAM-BOILERS.**

103,975, REUBEN P. BUTTLES. **TOOL-HOLDERS.**



103,976, S. R. P. CAMP. **COMBINED LIQUID GAUGE AND HYDROMETER.**

103,977, SAML. R. P. CAMP. **COMPUTING SPRING-BALANCES.**



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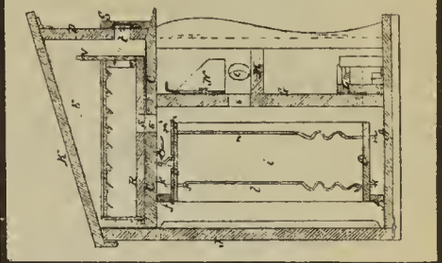
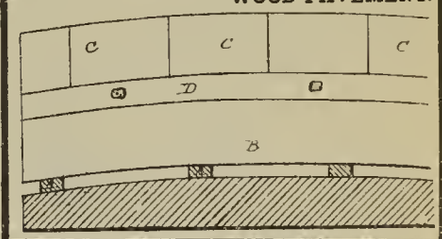
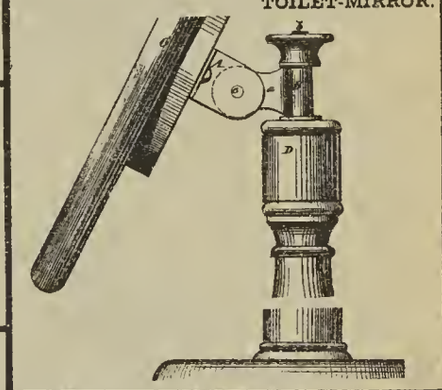


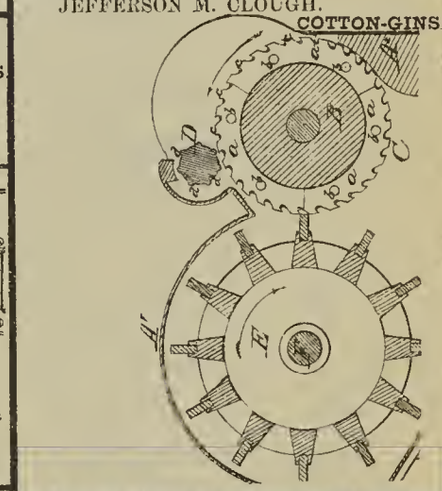
103,979. LOUIS A. CAUVET. **WOOD PAVEMENT.**



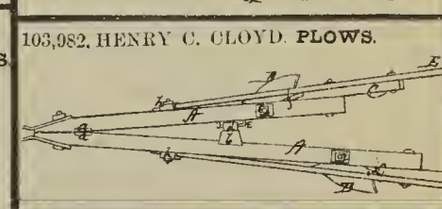
103,980. GEORGE H. CHINNOCK, EDWARD P. WILLIAMS. **TOILET-MIRROR.**



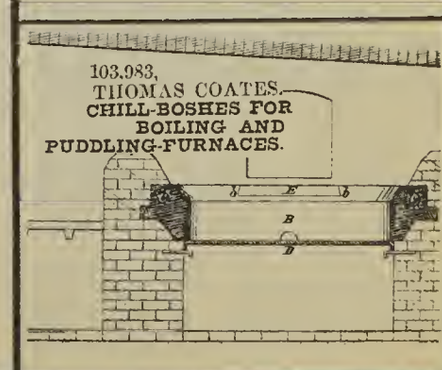
103,981. JEFFERSON M. CLOUGH. **COTTON-GINS.**



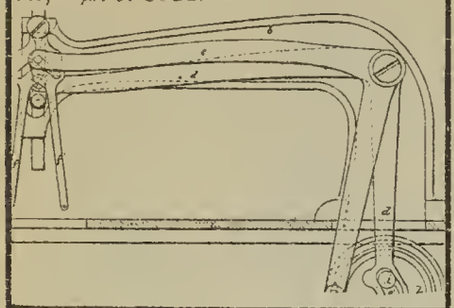
103,982. HENRY C. CLOYD. **PLOWS.**



103,983, THOMAS COATES. **CHILL-BOSHES FOR BOILING AND PUDDLING-FURNACES.**



103,984, J. J. COBB. SEWING-MACHINE.



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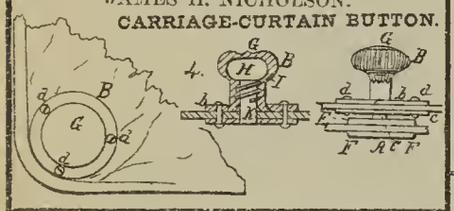
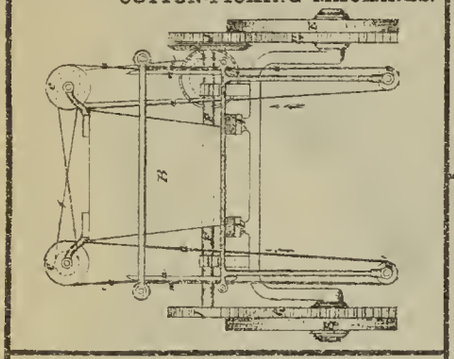
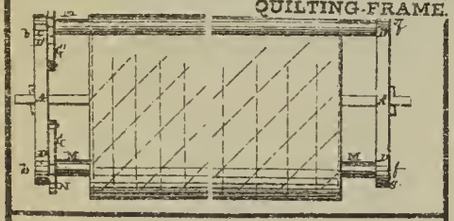
JAMES H. NICHOLSON.
CARRIAGE-CURTAIN BUTTON.



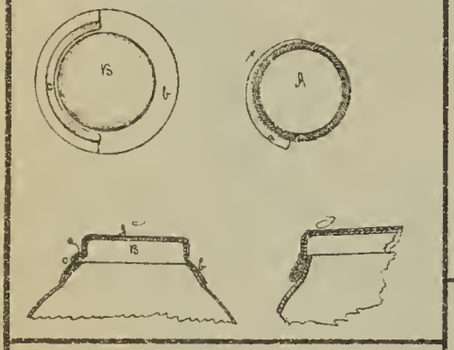
103,986, ROBERT F. COOKE. ELECTRICAL COTTON-PICKING MACHINES.



103,987, JOHN A. COOKERLY.
QUILTING-FRAME.



103,988, E. T. COVELL.
METALLIC CAPS AND NOZZLES.



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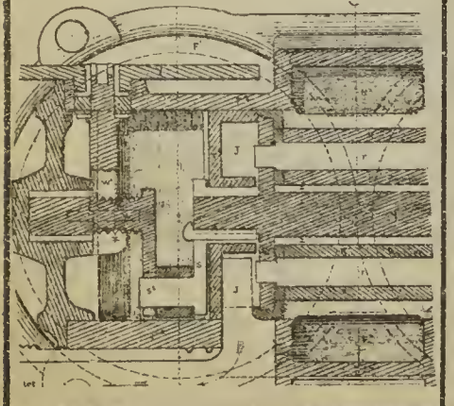
LIQUID METER.



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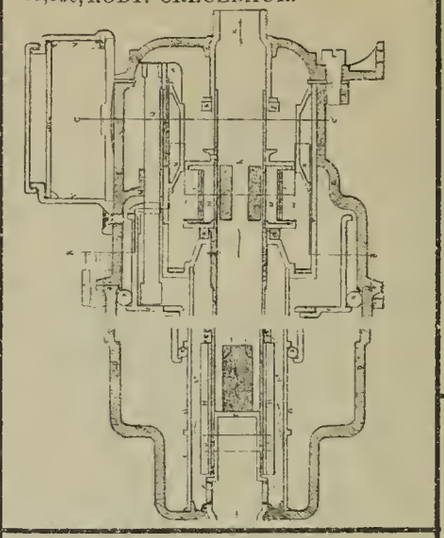

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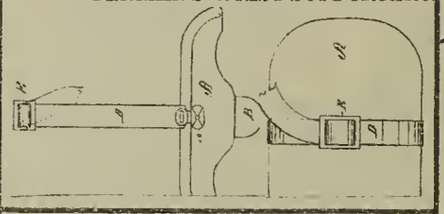
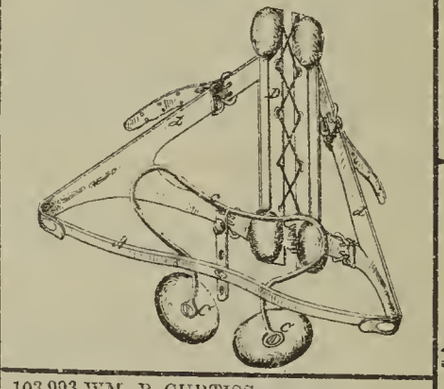
PENMAN'S WRIST-SUPPORTERS.



103,992, RICHARD JACKSON CUNDIFF.
COMBINED ABDOMINAL AND BACK-SUPPORTERS AND TRUSSES.



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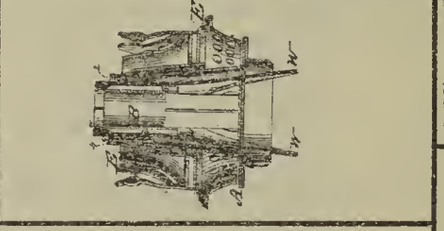
WICK-ADJUSTERS FOR ARGAND-LAMP BURNERS.



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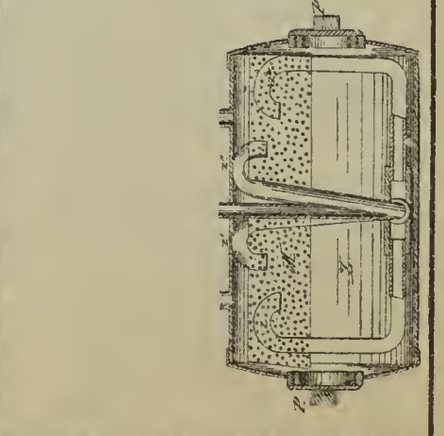
JOHN DAILEY.
APPARATUS FOR THE MANUFACTURE OF ILLUMINATING-GAS.



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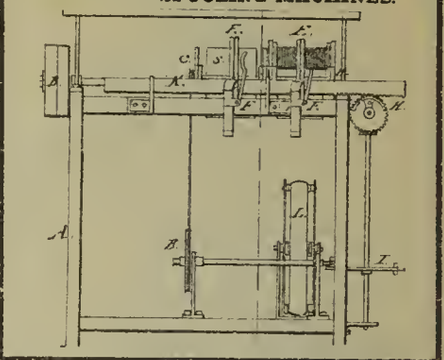
SPOOLING-MACHINES.



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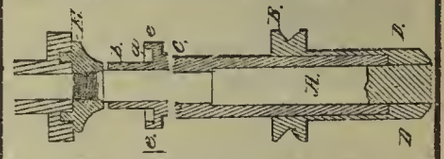
SPINDLE FOR SPINNING-MACHINE.



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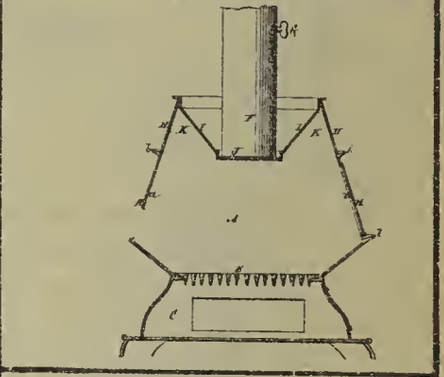
LAUNDRY-IRON HEATER.



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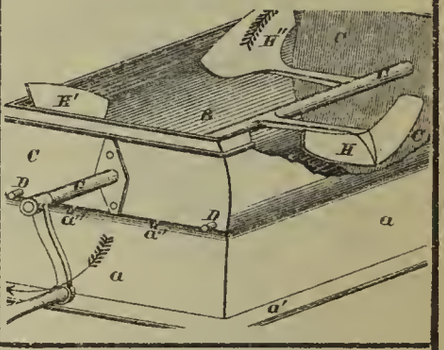
COMBINED ROASTER AND BROILER.



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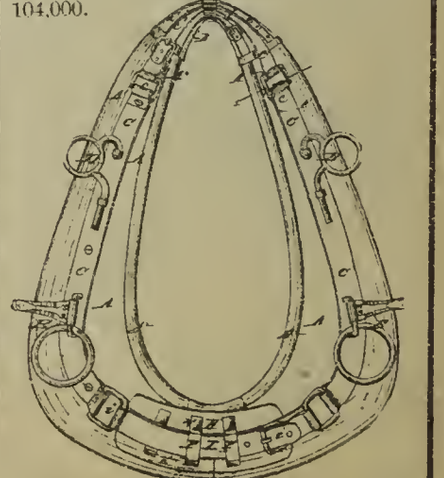
MANUFACTURE OF FROSTED PLUSH, PAPER,

J. ENGLAENDER. HORSE COLLAR.
104,000.



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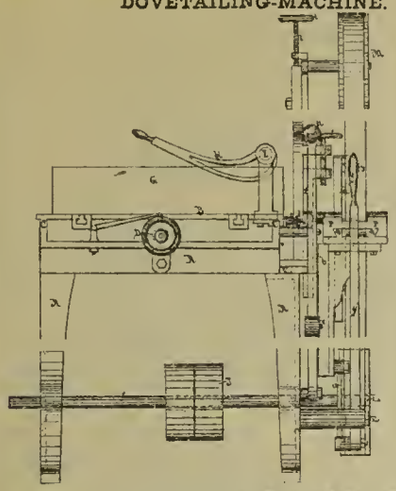

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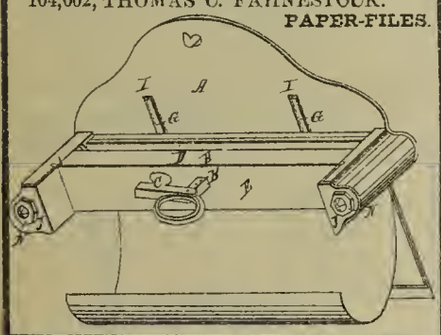
PAPER-FILES.



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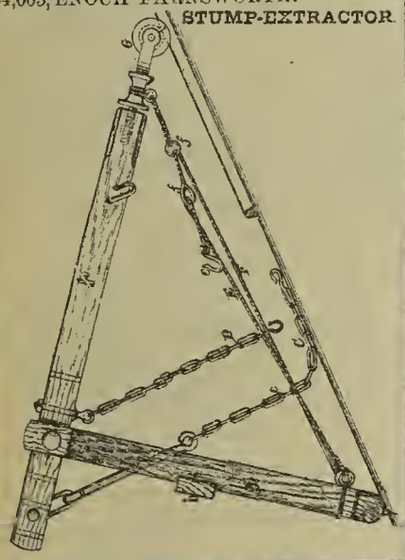
STUMP-EXTRACTOR.



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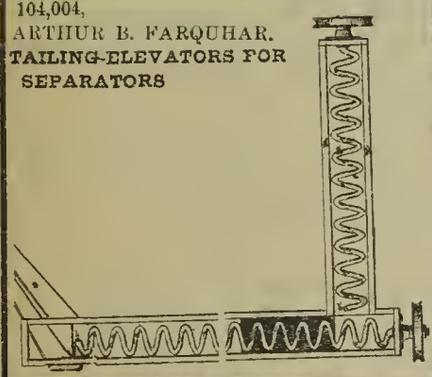
ARTHUR B. FARQUHAR.
TAILING-ELEVATORS FOR SEPARATORS



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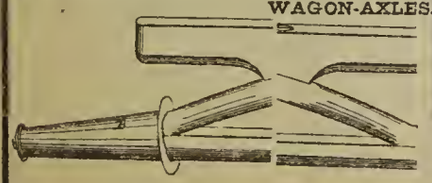
THOS. M. JONES.
WAGON-AXLES.

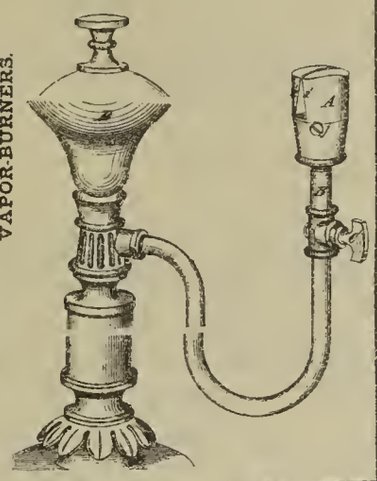


104,006. C. C. FITZGERALD.
COLORING AND DRYING PAPER.

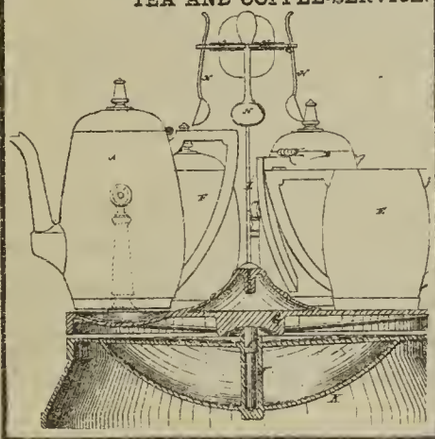
104,007, C. C. FITZGERALD.
TREATING MARBLE TO PRESERVE IT.

104,008, CYRENIUS C. FITZGERALD.
PRODUCING MOSAICS UPON MARBLE.

104,009,
DAVID R. FLETCHER.
VAPOR-BURNERS.



104,010, IRA YEAMANS.
TEA AND COFFEE-SERVICE.



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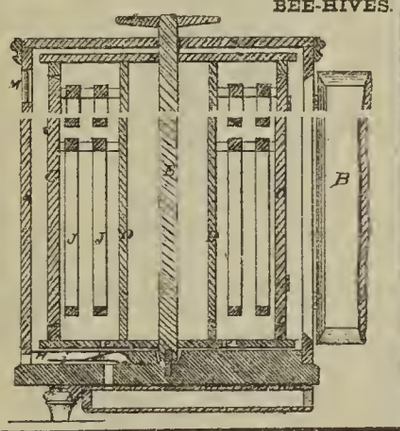
BEE-HIVES.



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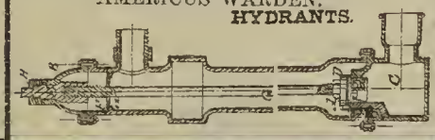
AMERICUS WARDEN.
HYDRANTS.



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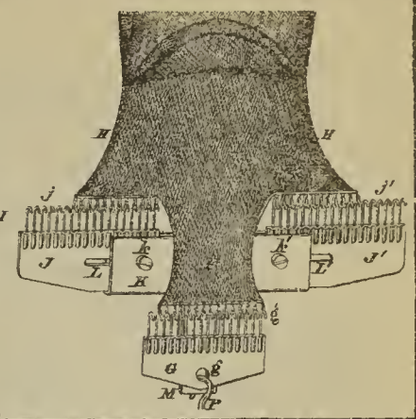
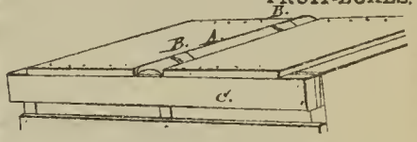
THOMAS GARRICK.
EYELET.

104,014, WILLIAM GASKILL.
SETTING-UP AND TENSION COMBS FOR KNITTING-MACHINES.

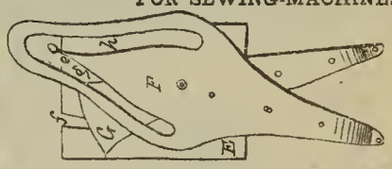


104,015, JOHN H. GEE. THILL-COUPLING.

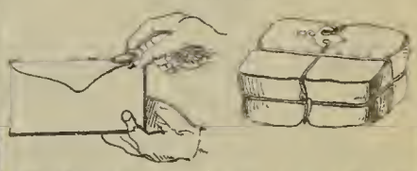
104,016, LEWIS L. GILLILAND.
FRUIT-BOXES.



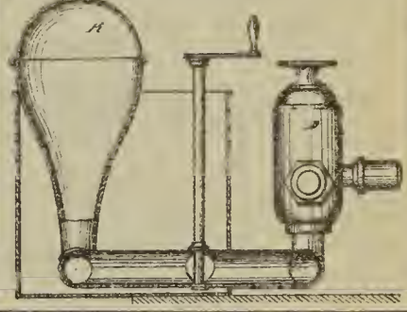
104,017, HARRY C. GOODRICH.
EMBROIDERING ATTACHMENT FOR SEWING-MACHINES.



104,018. J. P. GRUGER.
ENVELOPE OPENER.



104,019, JOHN C. HAGAN.
WATER-SUPPLYING APPARATUS.



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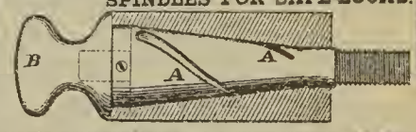
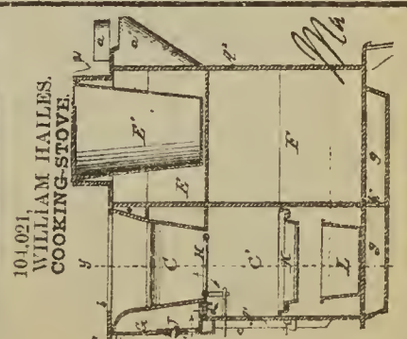
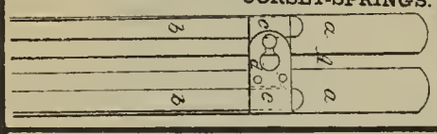
SPINDLES FOR SAFE-LOCKS.



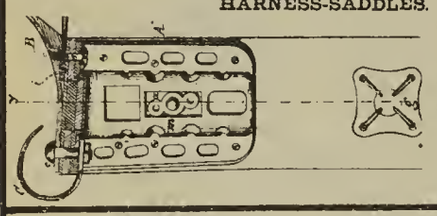
104,021,
WILLIAM HAILES.
COOKING-STOVE.



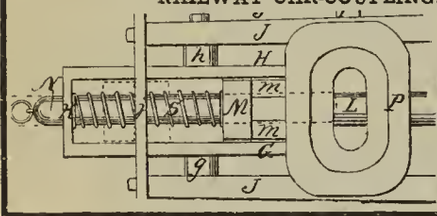
104,022. JOSEPH HANAUER.
NICHOLAS SARTOR.
CORSET-SPRINGS.



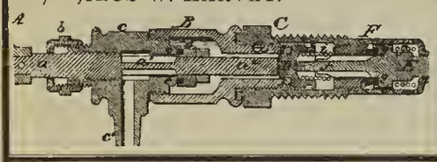
104,023, E. E. HARDY.
HARNESS-SADDLES.



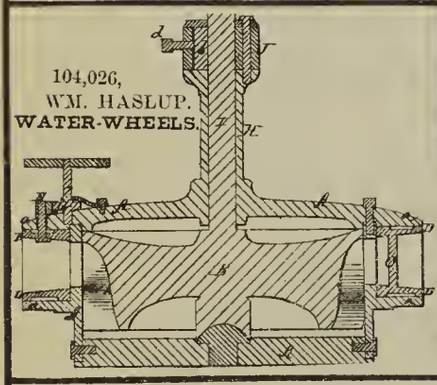
104,024, DANIEL HART.
RAILWAY CAR-COUPLING.



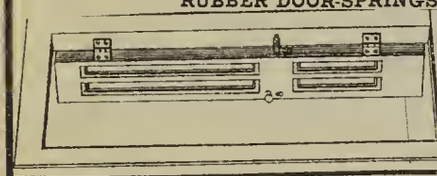
104,025, IRUS W. HARVEY. FAUCETS.



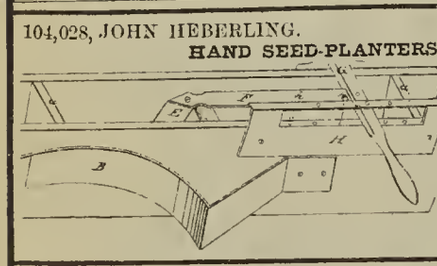
104,026,
WM. HASLUP.
WATER-WHEELS.



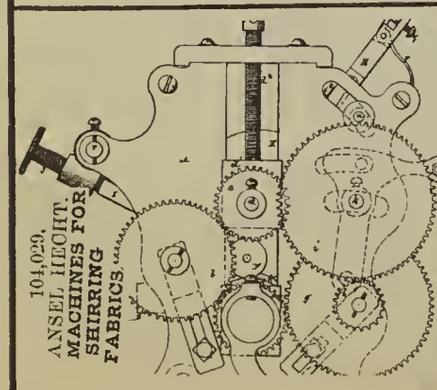
104,027, JOEL B. HAYDEN.
RUBBER DOOR-SPRINGS.



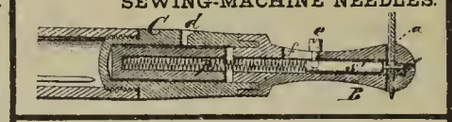
104,028, JOHN HEBERLING.
HAND SEED-PLANTERS.



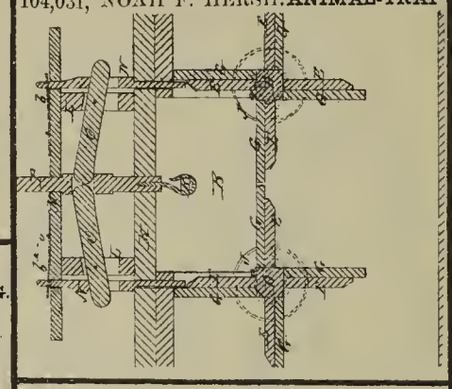
104,029,
ANSEL HECHT.
MACHINES FOR SHIRRING FABRICS.



104,030, E. E. HENDRICK.
SETTER, GAUGE, AND CASE FOR SEWING-MACHINE NEEDLES.

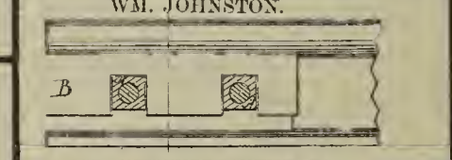


104,031, NOAH F. HERSH. ANIMAL-TRAP



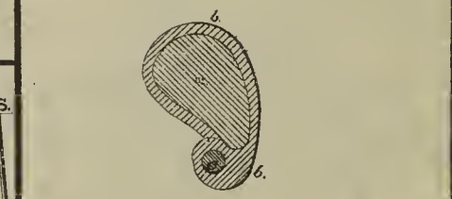
104,032, H. H. HESKETT.
SPRING CLOSING-CAPS FOR OIL-CUPS AND INKSTANDS.

104,033, DANL. HOFFMAN. NUT-LOCK.
WM. JOHNSTON.

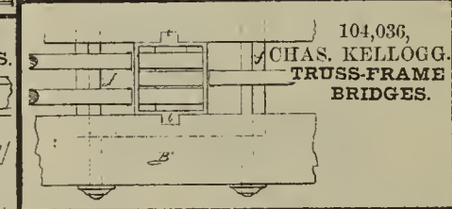


104,034, E. N. HORSFORD.
MANUFACTURE OF A NON-HYGROSCOPIC PULVERULENT ACID PHOSPHATE.

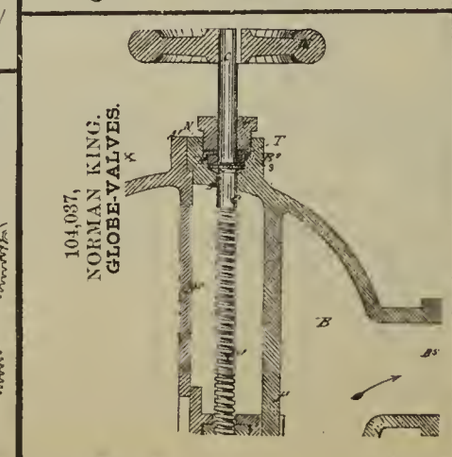
104,035, WM. KAYS. HORSE-COLLARS.



104,036,
CHAS. KELLOGG.
TRUSS-FRAME BRIDGES.

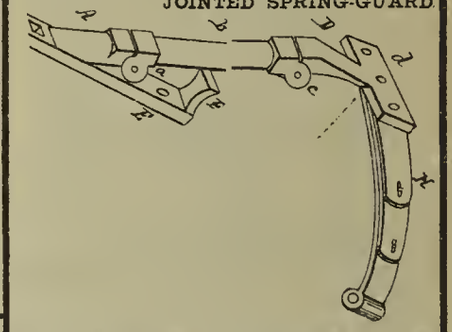


104,037,
NORMAN KING.
GLOBE-VALVES.

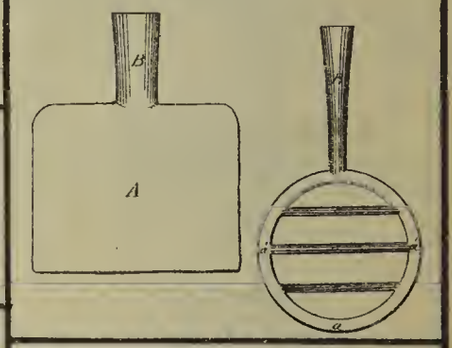


104,038. GEORGE L. KITSON.
JOSHUA F. LANING.
JOSEPH BENNOR.
SEAL-LOCKS.

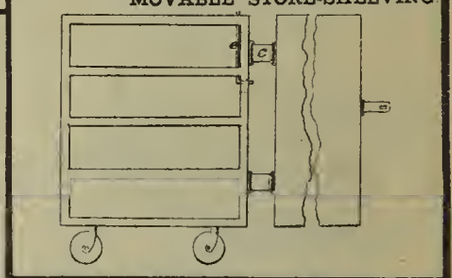
104,039. URIAS B. KLINE.
JOINTED SPRING-GUARD.



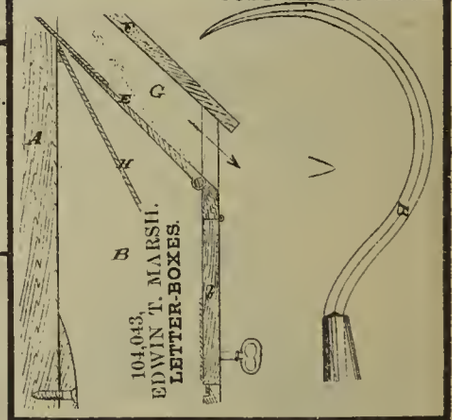
104,040. WILSON W. KNOWLES.
METHOD OF FORMING CARRIAGE-STEPS.



104,041. GEO. KOCH.
WM. KOCH.
MOVABLE STORE-SHELVING.

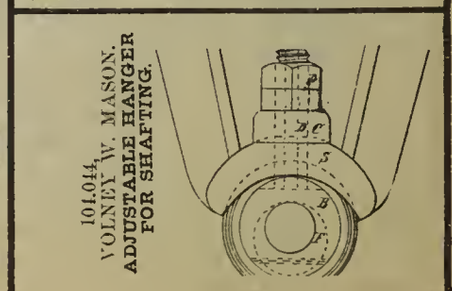


104,042, J. FRED. LEITCH.
CULTIVATING-HOOK.

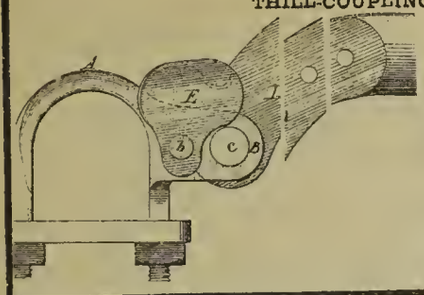


104,043,
EDWIN T. MARSH.
LETTER-BOXES.

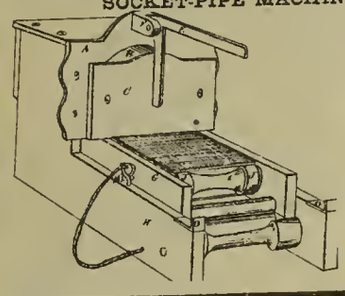
104,044,
VOLNEY W. MASON.
ADJUSTABLE HANGER FOR SHAFTING.



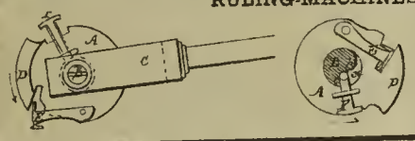
104,045, HENRY Z. MAST. THILL-COUPLING.



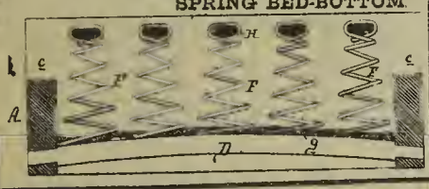
104,046, FREDERICK M. MATTICE. SOCKET-PIPE MACHINERY.



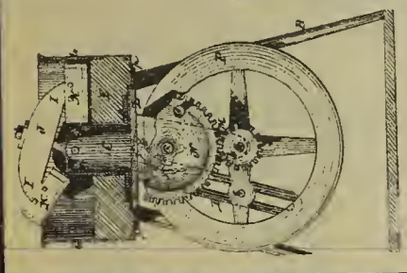
104,047, JOHN McADAMS. RULING-MACHINES.



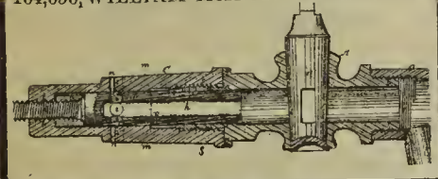
104,048, WILLIAM McARTHUI. SPRING BED-BOTTOM.



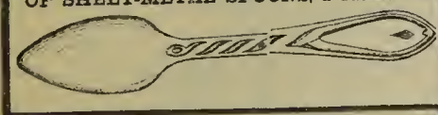
104,049, ARTHUR McCARTER. MEAT-CHOPPER.



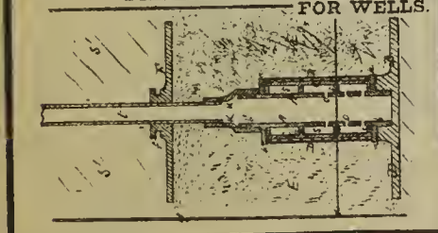
104,050, WILLIAM McKAY. FAUCETS.



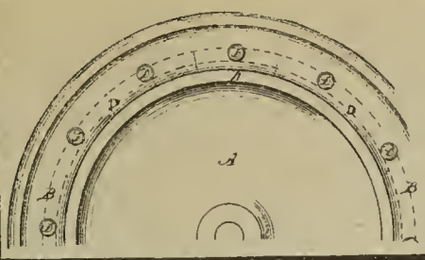
104,051, HENRY C. MILLIGAN. HANDLES OF SHEET-METAL SPOONS, FORKS, &c.



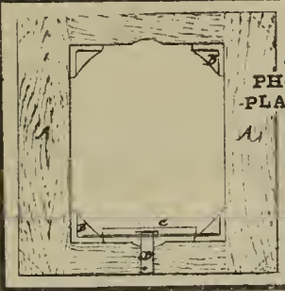
104,052, MADS C. MONSON. TUBING AND FILTERING-ARRANGEMENTS FOR WELLS.



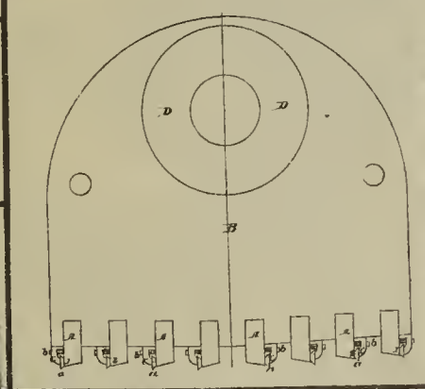
104,053, H. W. MOORE. CAR-WHEELS.



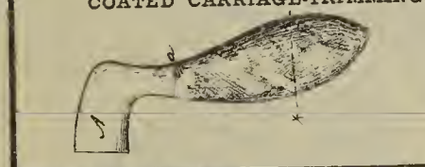
104,054, J. W. MOORE. PHOTOGRAPHIC PLATE HOLDERS.



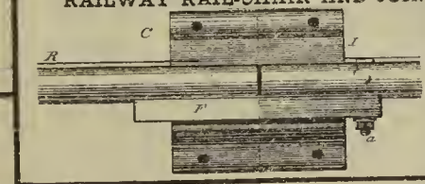
104,055, ARCHD. MUNRO, W. B. ADAMSON. MACHINE FOR CUTTING AND DRESSING STONE.



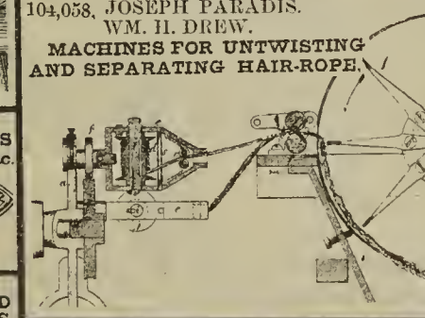
104,056, JOHN W. MUNSON. MANUFACTURE OF RUBBER COATED CARRIAGE-TRIMMINGS.



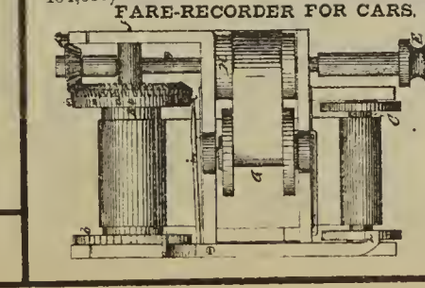
104,057, JNO. M. ORE. RAILWAY RAIL-CHAIR AND JOINT.



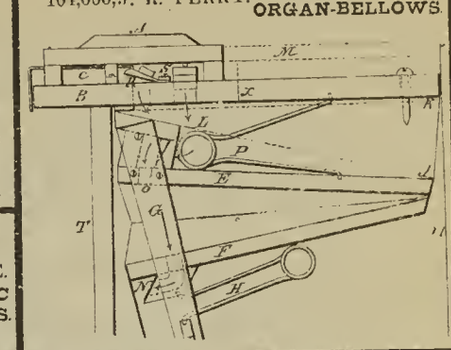
104,058, JOSEPH PARADIS, WM. H. DREW. MACHINES FOR UNTWISTING AND SEPARATING HAIR-ROPE.



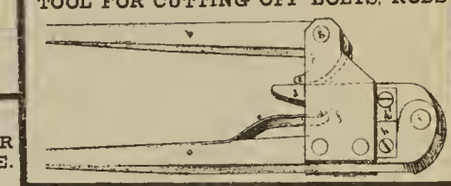
104,059, O. S. PEASE. FARE-RECORDER FOR CARS, &c.



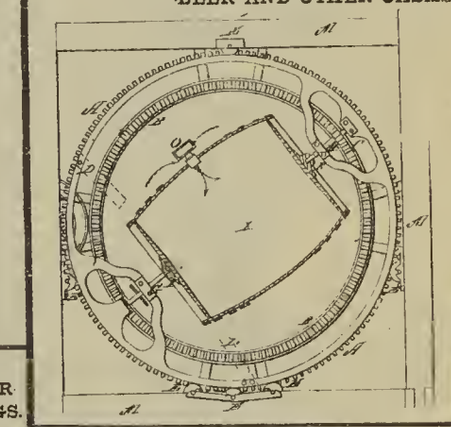
104,060, J. R. PERRY. ORGAN-BELLOWS.



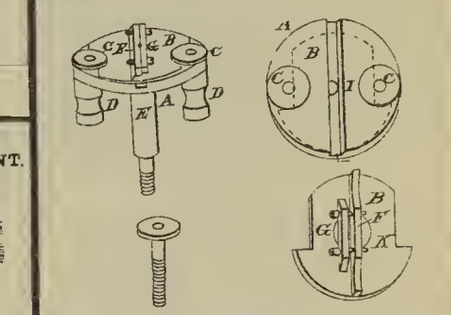
104,061, HENRY PETERS. TOOL FOR CUTTING OFF BOLTS, RODS.



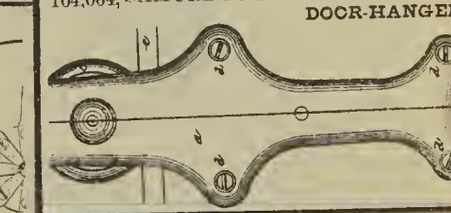
104,062, H. A. RATTERMANN. MACHINE FOR PITCHING LAGER-BEER AND OTHER CASKS.



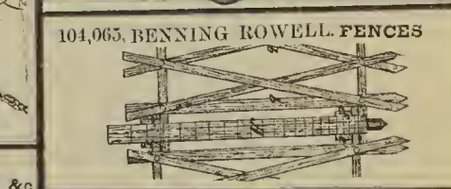
104,063, JOHN RICH. LATHE-CHUCK.



104,064, SAMUEL P. ROBINSON. DOOR-HANGER.

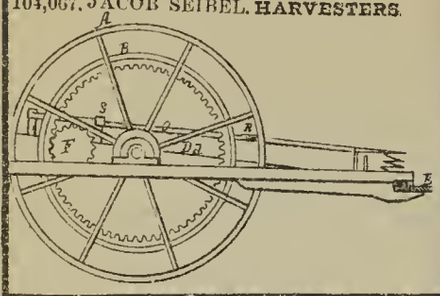


104,065, BENNING ROWELL. FENCES.

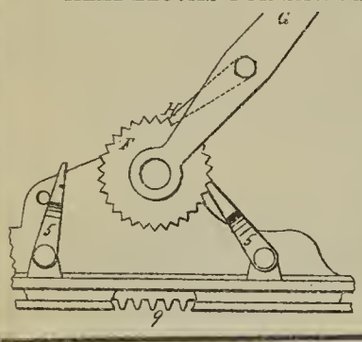


104,066, WM. H. RUSSELL. SCREW-COLLARS FOR LAMPS.

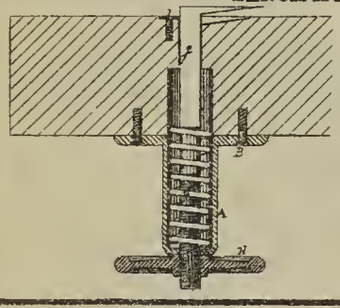
104,067, JACOB SEIBEL. **HARVESTERS.**



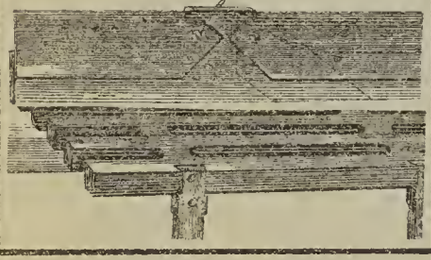
104,068, GEO. SELDEN.
H. O. KELSEY.
HEAD-BLOCKS FOR SAW-MILLS.



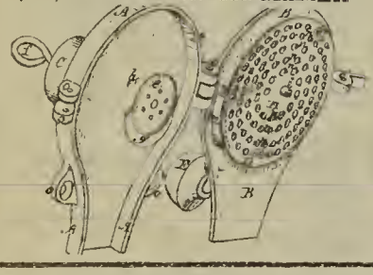
104,069, HENRY J. SKINNER.
BENCH-HOOKS.



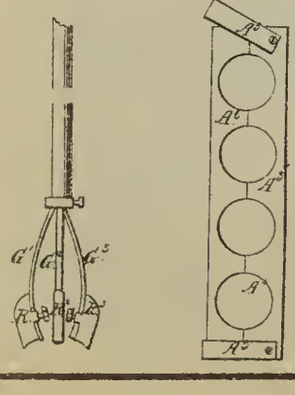
104,070, JAMES B. SLUSSER.
WILLIAM H. MEECH. **GRATE AND BACK FOR COOKING-STOVES.**



104,071, JAMES M. SMITH. **GRATER.**



104,072, WILLIAM SMITH. **MACHINE FOR CLEANING CAST-IRON PIPE.**



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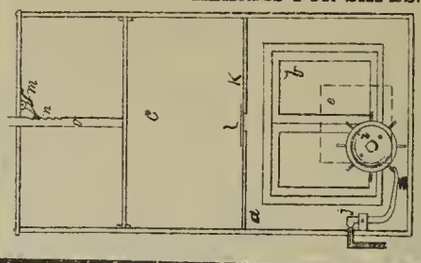
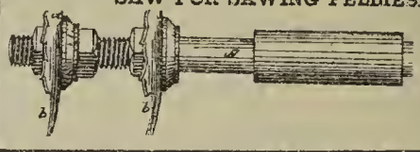
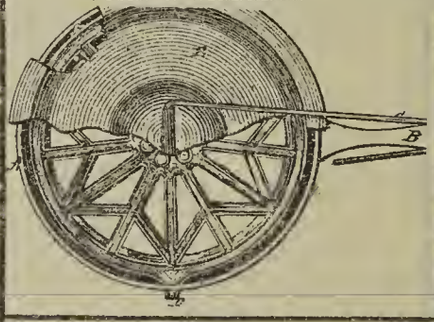
ALARMS FOR SAFES.



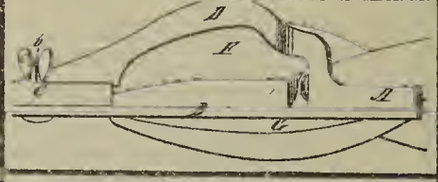
104,074, GEORGE STECK.
SAW FOR SAWING FELLIES.



104,075, WILLIAM C. STIVER. **BROILER.**
JOHN S. WILLIAMS.



104,076, ORSON W. STOW.
GAUGE ATTACHMENT FOR TINSMITHS' SHEARS.



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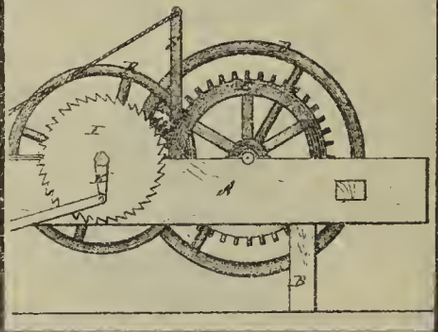
SAWING-MACHINE.



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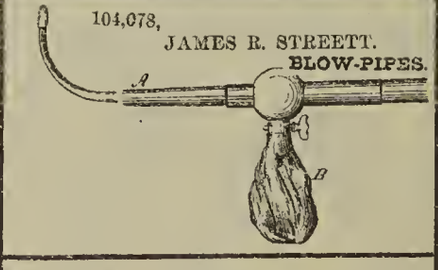
JAMES R. STREETT.
BLOW-PIPES.



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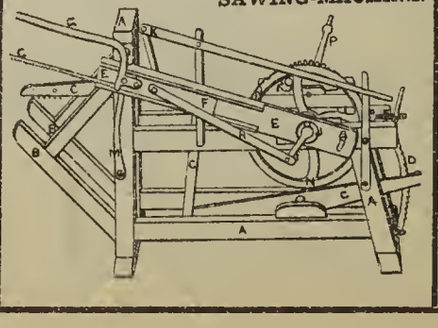
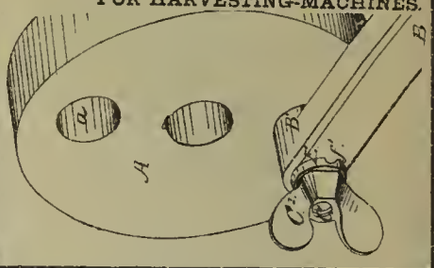


104,080, J. OSCAR TABER. **CRANK-WRIST FOR HARVESTING-MACHINES.**



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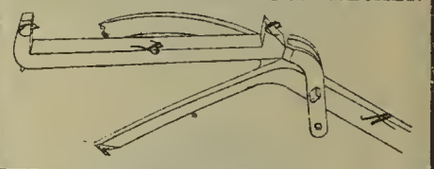
SCAFFOLD-BRACKET.



104,082, JOHN C. TURNER.
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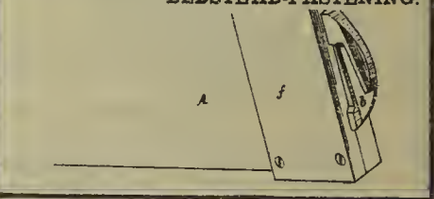

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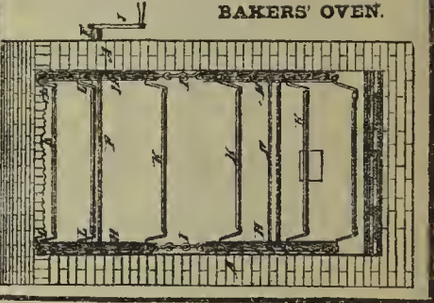
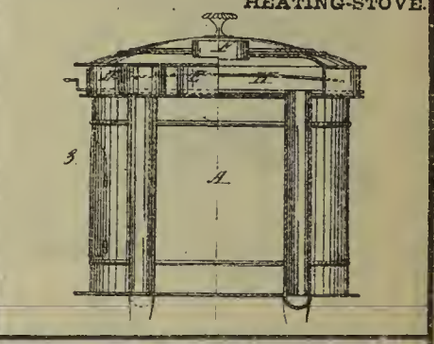
CHAS. L. VALE.
BAKERS' OVEN.



104,084, NICHOLAS S. VEDDER.
HEATING-STOVE.



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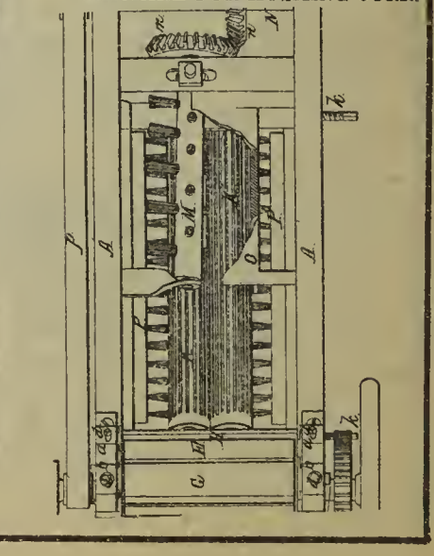
JAMES H. BAKER.
GEORGE B. SLOCUM.
MACHINE FOR HUSKING CORN.



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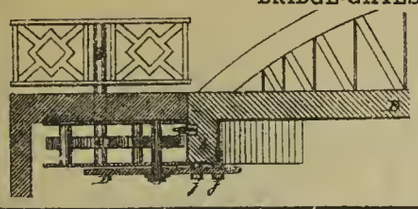
BRIDGE-GATES.



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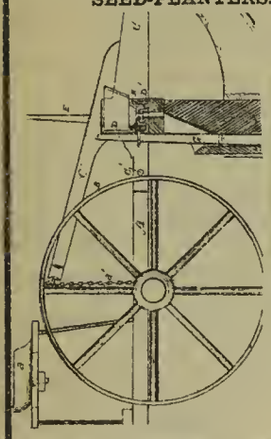
JOHN E. WHITE.
SEED-PLANTERS.



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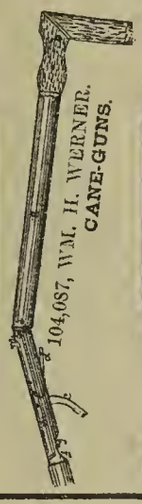
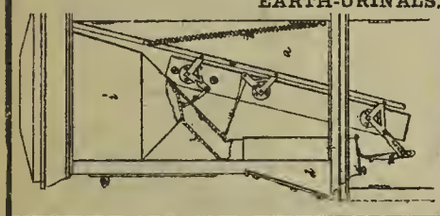
CANE-GUNS.



104,089, JOHN G. WHITE.
EARTH-URINALS.



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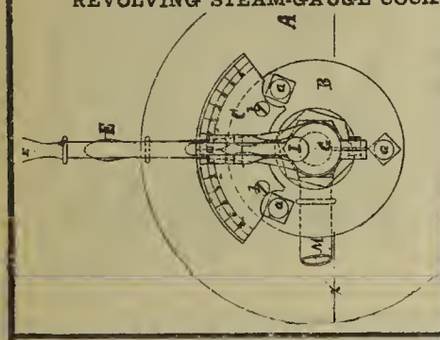
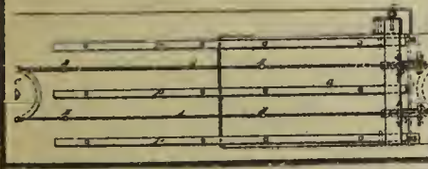
EDWARD JOSEPH.
REVOLVING STEAM-GAUGE COCK



104,091, JOHN DE WITT WILLIAMS.
MANUFACTURE OF IRON.

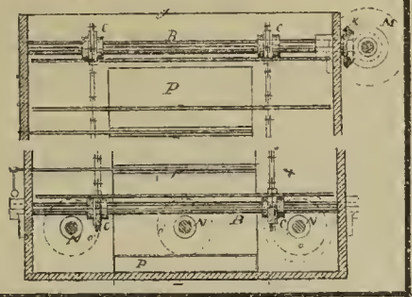
104,092, LOREN R. WITHERELL.
AMASA B. CRANDALL.
DUSTING-BRUSH.

104,093, JOHN EASTBURN WOOTTEN.
MACHINERY FOR MOVING COAL
OR OTHER MINERALS.

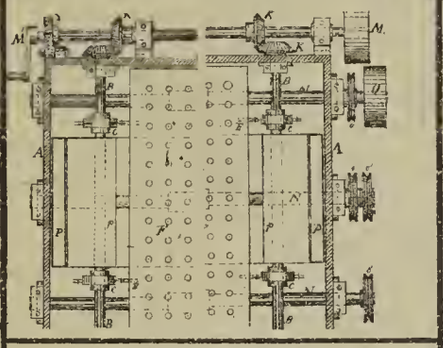


104,094 J. H. WOOLRICH.
CONDITION-POWDERS
FOR HORSES AND CATTLE.

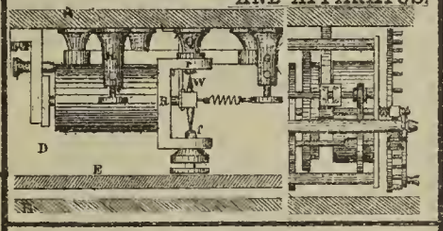
4,010. C. ALDEN. APPARATUS FOR
EVAPORATING THE MOISTURE FROM
ANIMAL AND VEGETABLE SUBSTANCES



4,011. C. ALDEN. PROCESS FOR
EVAPORATING THE MOISTURE FROM
ANIMAL AND VEGETABLE SUBSTANCES



4,012, ALEXANDER ALLEN.
FIRE-ALARM SIGNALS
AND APPARATUS.



4,013 ALEXANDER ALLEN.
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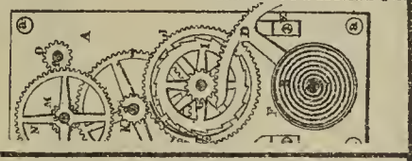
AND APPARATUS.



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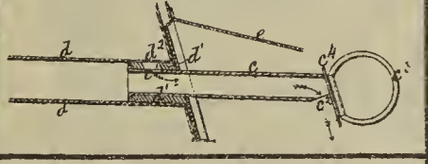
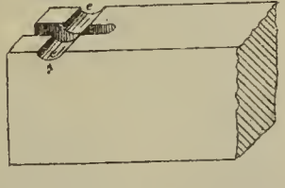
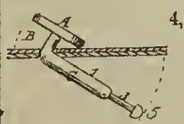
TAPS FOR OIL-VESSELS.

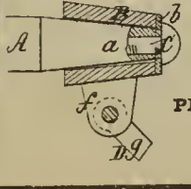


4,015, DOUGLAS BLY.
PISTON-ROD ADJUSTERS.



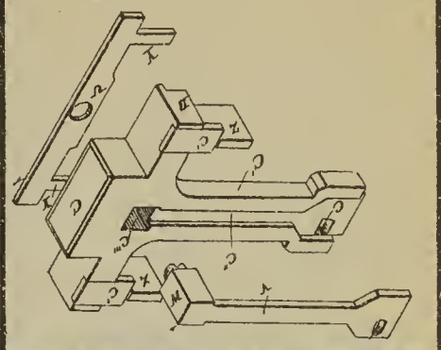


4,016, BARNES CLAYTON.
AND STUDS.
SLEEVE-BUTTONS



4,017, J. W. DOTY.
PITMAN-CONNECTION
FOR HARVESTERS

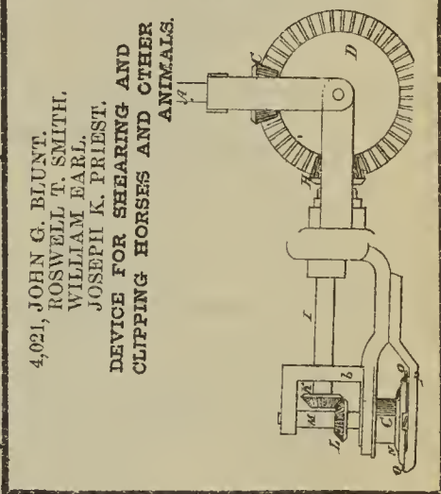
4,018, JOSEPH L. HALL. LOCKS.



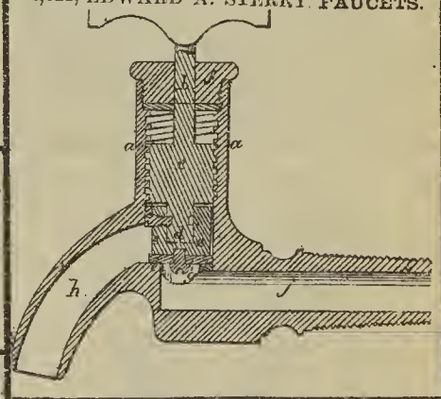
4,019, CALVIN Z. KROH. CURTAIN-KNOBS

4,020, THOS. RESTIEAUX.
DEODORIZING PETROLEUM.

4,021, JOHN G. BLUNT.
ROSWELL T. SMITH.
WILLIAM EARL.
JOSEPH K. PRIEST.
DEVICE FOR SHEARING AND
CLIPPING HORSES AND OTHER
ANIMALS.

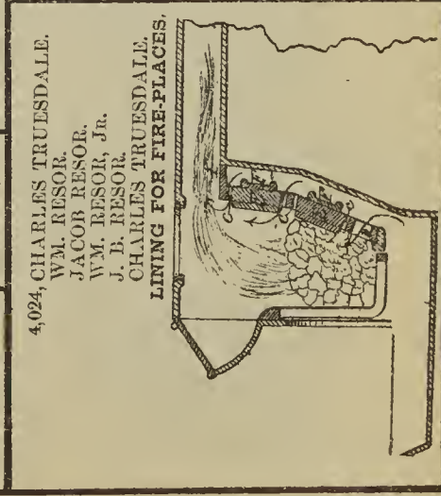


4,022, EDWARD A. STERRY. FAUCETS.



4,023, ALBERT KNIGHT.
GEO. W. TALBOT.
DYE FOR COLORING WOOL AND
OTHER FIBROUS MATERIALS.

4,024, CHARLES TRUESDALE.
WM. RESOR.
JACOB RESOR.
WM. RESOR, Jr.
J. B. RESOR.
CHARLES TRUESDALE.
LINING FOR FIRE-PLACES.



ILLUSTRATIONS OF PATENTS

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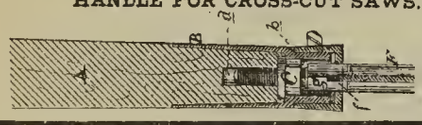
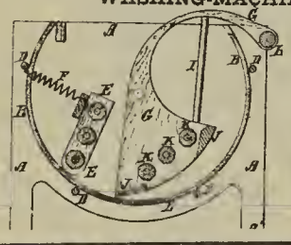
JUNE 14, 1870.

104,095. EMANUEL ANDREWS.
HANDLE FOR CROSS-CUT SAWS.



104,096, ISRAEL BAKER.
WASHING-MACHINE.



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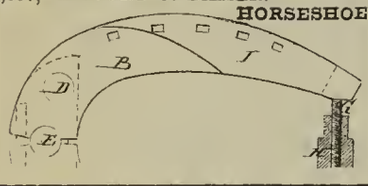
HORSESHOES.



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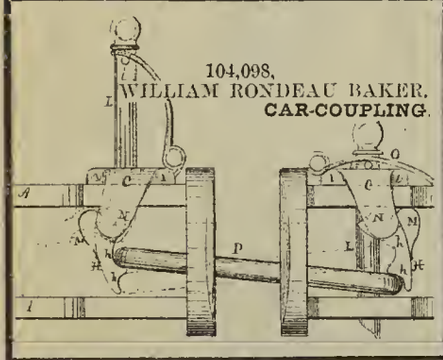
WILLIAM RONDEAU BAKER.
CAR-COUPLING.



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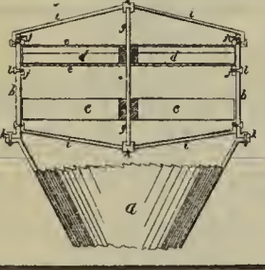
SPARK-ARRESTER



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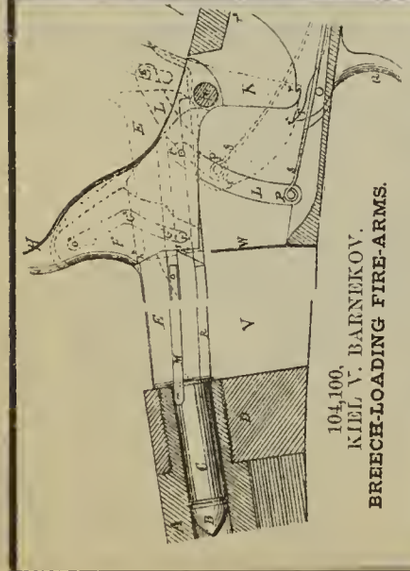
KIELY V. BARNEKOV.
BREECH-LOADING FIRE-ARMS.



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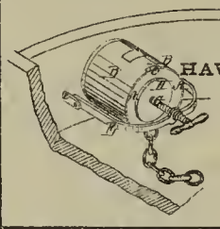
O. B. BEARSE.
HAWSE-PIPE STOPPER.



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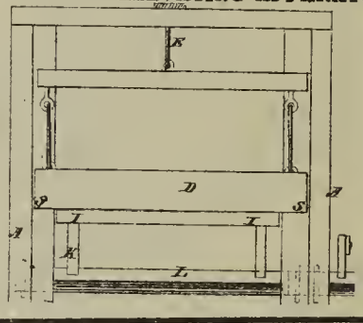
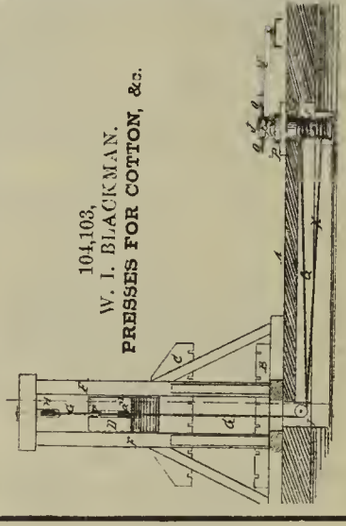
ELEVATING APPARATUS.

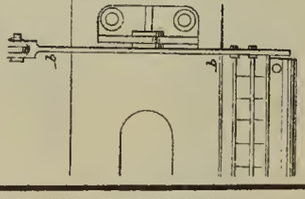


104,103,
W. I. BLACKMAN.
PRESSES FOR COTTON, &c.



104,104, JOH. BOLINDER.
SOFT SOAP OR WASHING-FLUID.

104,105, WILLIAM JAMES BONSER.
APPARATUS FOR FEEDING CATTLE ON RAILWAY-TRUCKS.



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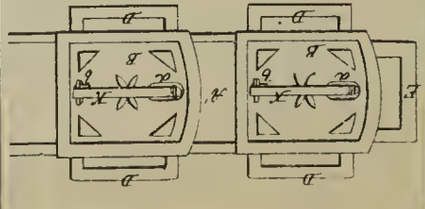
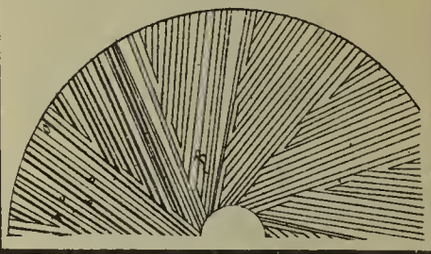
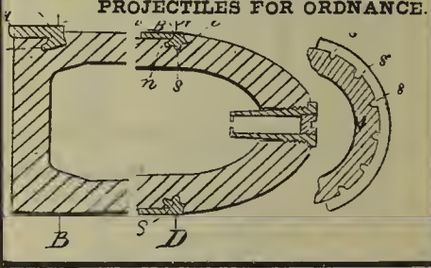
HAME-TUG FOR HARNESS.



104,107. D. BOWMAN.
MILLSTONE DRESS.

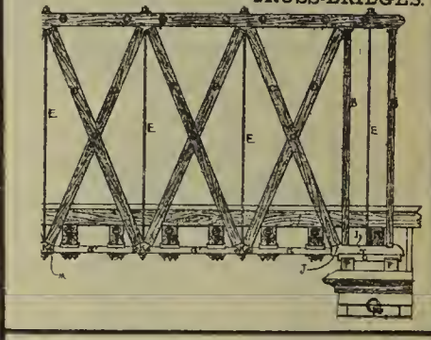


104,108, JOHN G. BUTLER.
PROJECTILES FOR ORDNANCE.

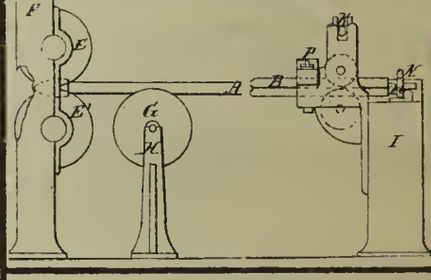


104,109, A. S. CARLETON.
FOUNTAIN-PENS.

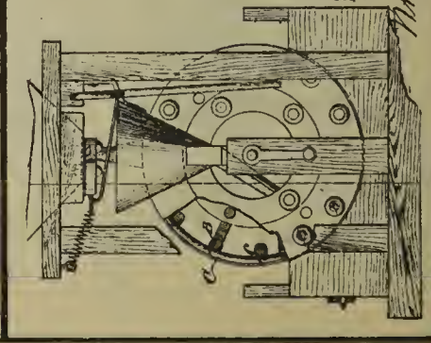
104,110, MILO S. CARTTER.
HOSEA B. CARTTER.
TRUSS-BRIDGES.



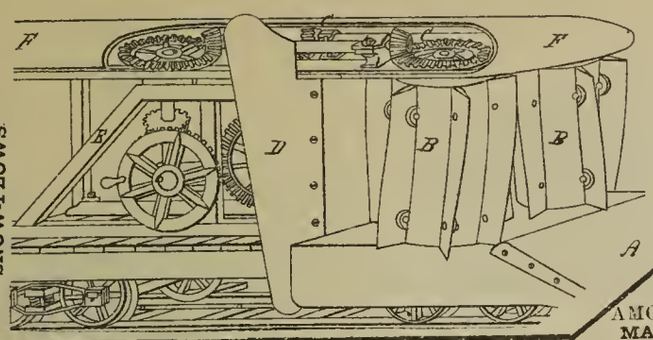
104,111. J. CASSIDY.
APPARATUS FOR MAKING TUBING.



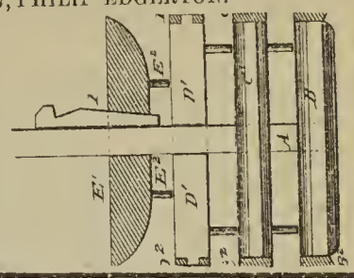
104,112, WILLIAM C. CHAPMAN.
RICE-SCREENS.



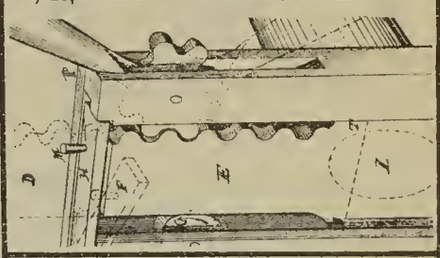
104,113, T. C. CHURCHMAN. SNOW-PLOWS.



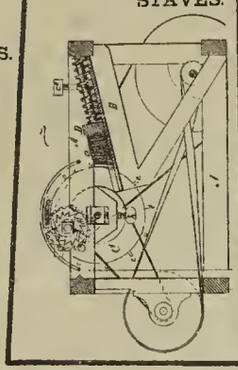
104,127, PHILIP EDGERTON. CHURN-DASHER.



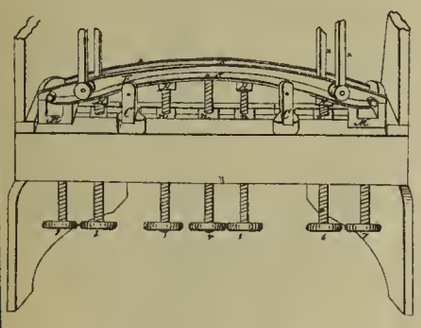
104,128, ASA EGGLESTON. FAUCETS.



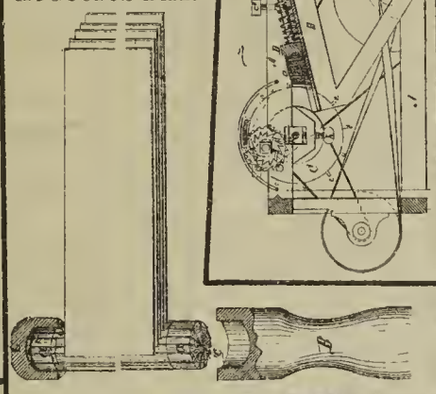
104,121, AMOS CUTTER. MACHINE FOR FINISHING STAVES.



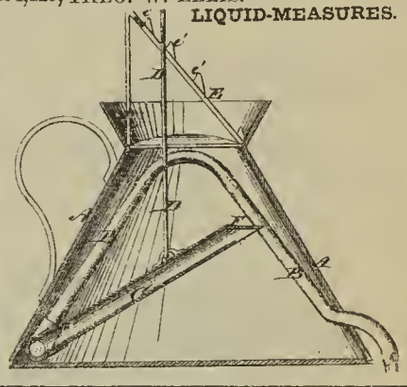
104,114, JAMES B. CLEVELAND. HENRY C. GUILDERSLEIVE. MACHINE FOR FORMING ELLIPTIC SPRINGS.



104,122, PAPER-FILES. AUGUSTUS DAY.

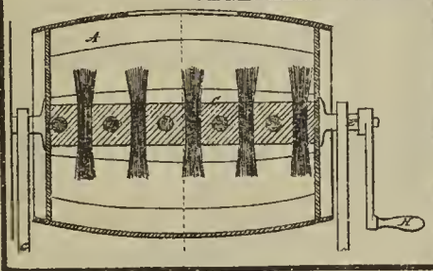


104,129, THEO. W. ELLIS. LIQUID-MEASURES.

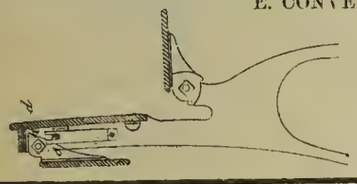


104,115, E. CONVERS. OIL-CUPS AND BEARINGS FOR SPINDLES.

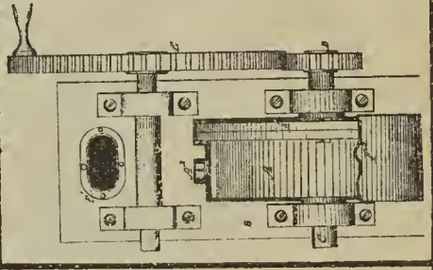
104,123, RICHD. DERHAM. VEGETABLE WASHER.



104,116, FOLDING SCHOOL-DESK. E. CONVERS.

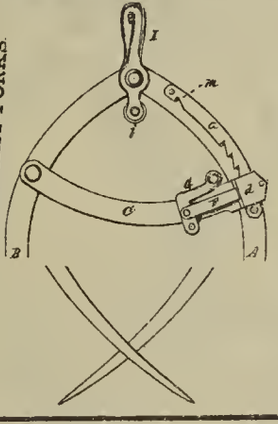


104,130, CHRISTIAN S. EYSTER. SEPARATING AND REFINING METALS.

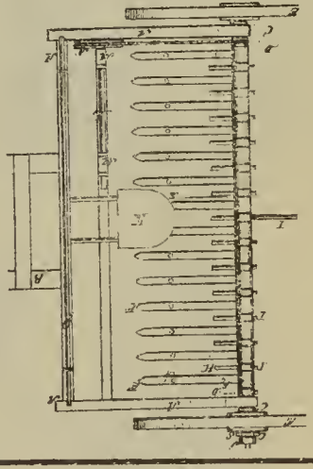


104,117, DANIEL P. COOK. SELF-PROTECTORS.

104,124, WILLIAM E. DERRICK. HORSE HAY-FORKS.

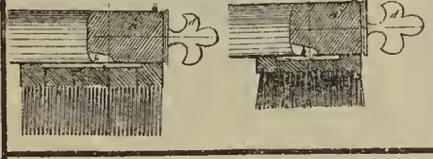


104,131, WILLIAM H. FAY. HORSE HAY-RAKES.

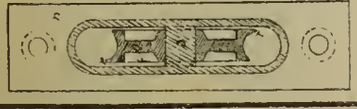


104,118, E. P. COOLEY. BROOMS AND WHISKS.

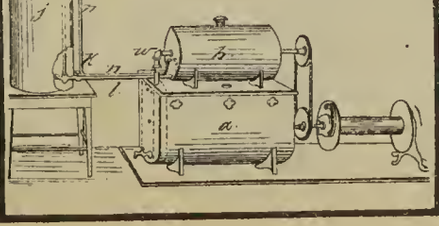
104,125, THOMAS DIVINE. HAIR-BRUSH OR COMB.



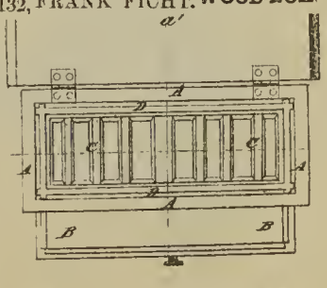
104,119, GEO. B. COWLES. PULLEYS.



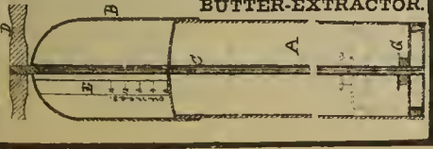
104,126, BAILEY B. DOUGLAS. HYDROCARBON-VAPOR MACHINE FOR ILLUMINATING PURPOSES.



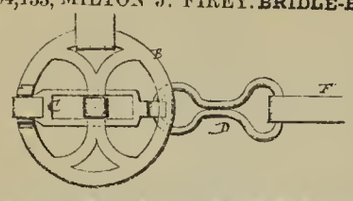
104,132, FRANK FICHT. WOOD-BOX.



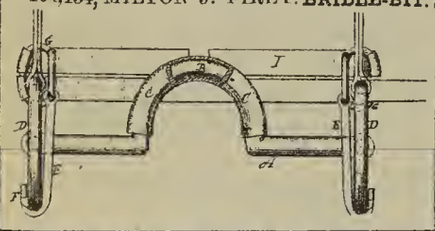
104,120, THOMAS CURTIS. BUTTER-EXTRACTOR.



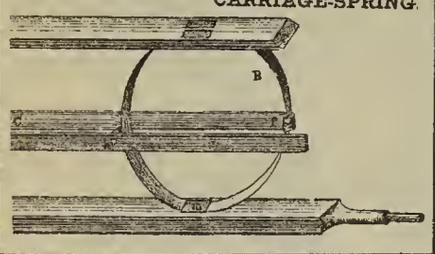
104,133, MILTON J. FIREY. **BRIDLE-BIT.**



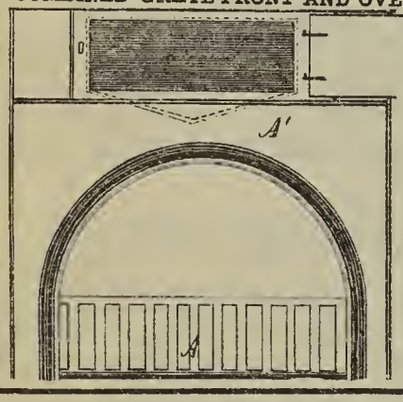
104,134, MILTON J. FIREY. **BRIDLE-BIT.**



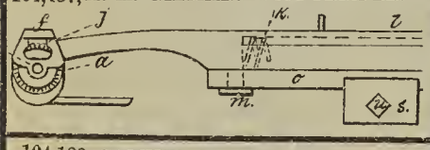
104,135, JOSEPH S. FOSTER. **CARRIAGE-SPRING.**



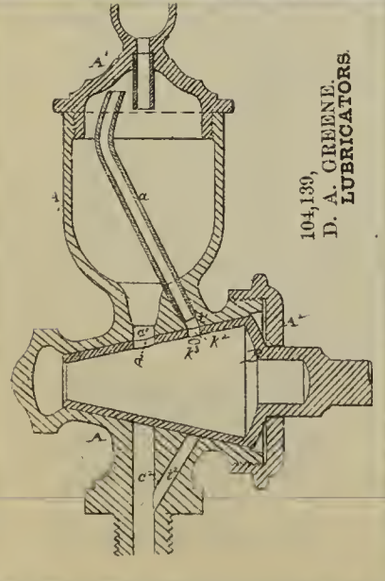
104,136, J. W. GILLESPIE. WM. HUGHES. **COMBINED GRATE-FRONT AND OVEN.**



104,137, A. H. GILMAN. **LOOM-TEMPLE.**

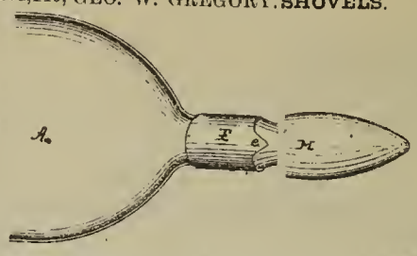


104,138, SAMUEL H. GILMAN. **EXTRACTIVE MATTER FOR COLOR-TREATING GRAIN TO OBTAIN ING AND FLAVORING SPIRITS.**

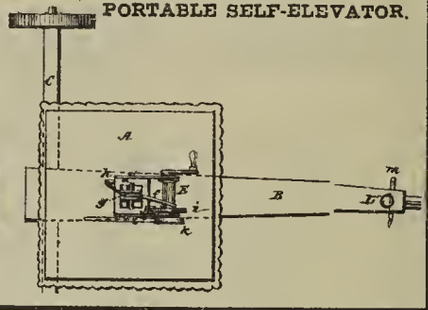


104,139, D. A. GREENE. **LUBRICATORS.**

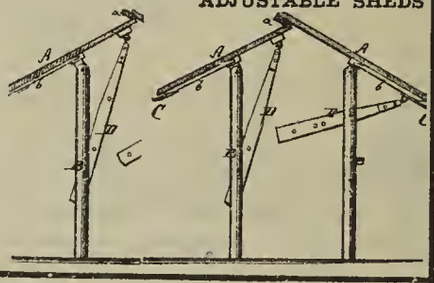
104,140, GEO. W. GREGORY. **SHOVELS.**



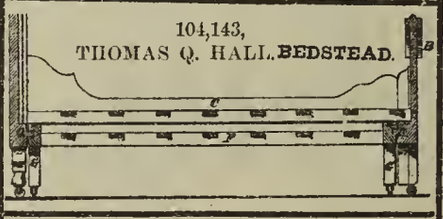
104,141, HERMAN L. HALL. **PORTABLE SELF-ELEVATOR.**



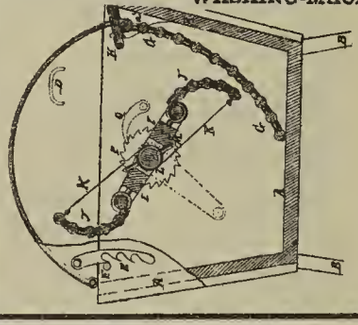
104,142, FRANCIS L. HALL. **ADJUSTABLE SHEDS**



104,143, THOMAS Q. HALL. **BEDSTEAD.**



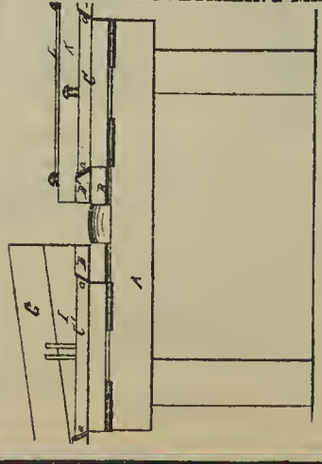
104,144, GUSTAVUS HAMEL. **WASHING-MACHINE.**



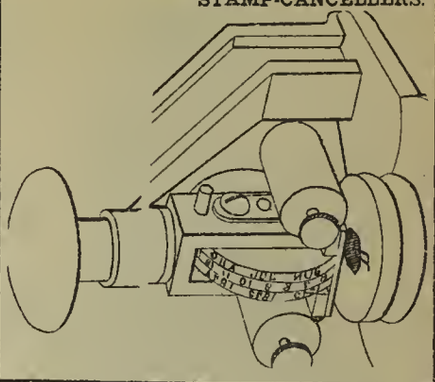
104,145, JOSEPH L. HANNUM. SAMUEL H. STEBBINS. **FIRE-KINDLING.**

104,146, O. P. HARE. **LINIMENT.**

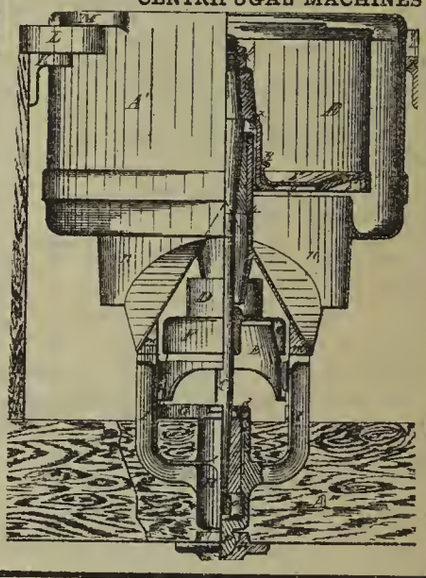
104,147, ELANDER HEATH. **DOVETAILING-MACHINE.**



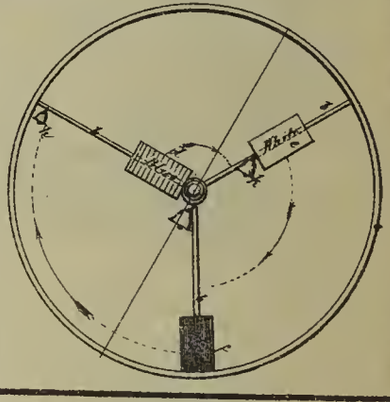
104,148, E. E. HENDRICK. **STAMP-CANCELLERS.**



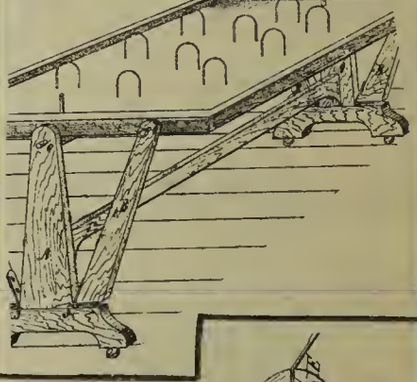
104,149, S. S. HEPWORTH. **CENTRIFUGAL MACHINES**



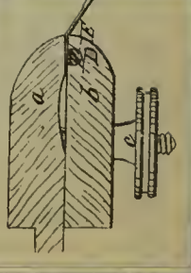
104,150, PHILIPP HESSEMER. **TOY HOOP.**



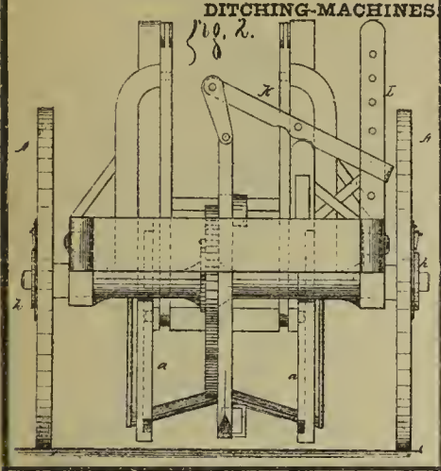
104,151, H. R. HEYL. **METHOD OF MOUNTING CROQUET-BOARDS.**



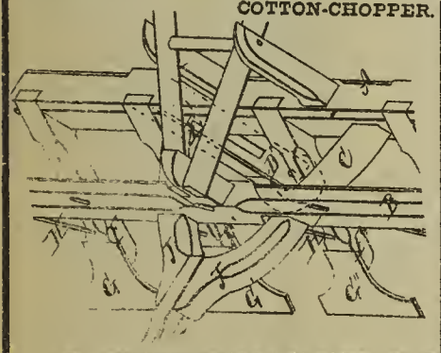
104,152, W. O. HICKOK. **PAPER-RULING MACHINES.**



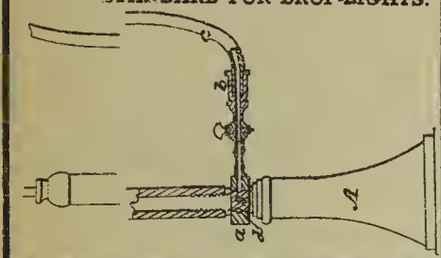
104,153, MAHLON C. HIGGINS.
GILBERT B. HIGGINS.
DITCHING-MACHINES.



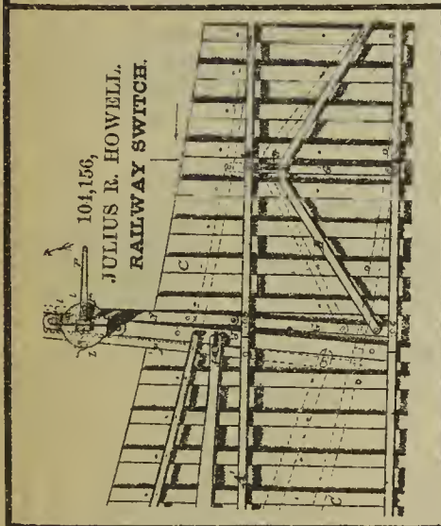
104,154, RUFUS C. HOLT.
COTTON-CHOPPER.



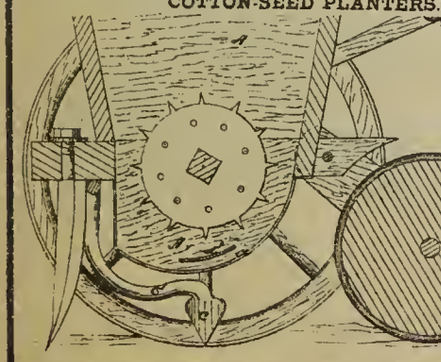
104,155, JOHN HORTON.
STANDARD FOR DROP-LIGHTS.



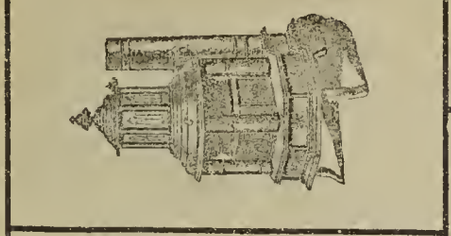
104,156, JULIUS R. HOWELL.
RAILWAY SWITCH.



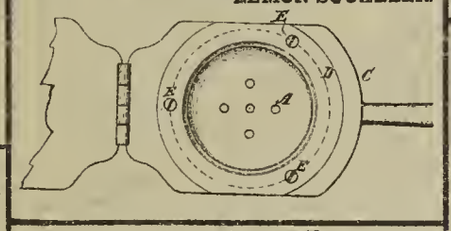
104,157, E. J. HUDSON
COTTON-SEED PLANTERS.



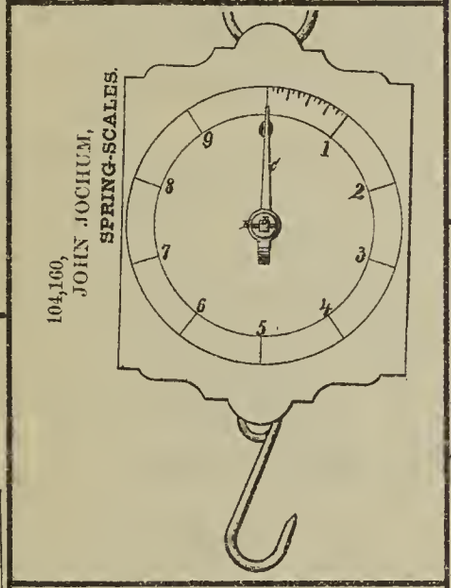
104,158, GEORGE G. HUNT.
STOVE-ILLUMINATOR.



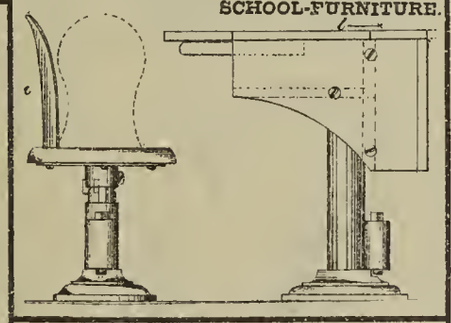
104,159, JAMES L. JENSEN.
LEMON-SQUEEZER.



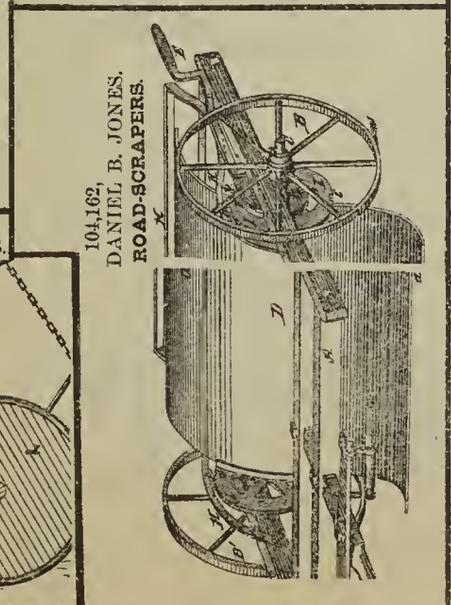
104,160, JOHN JOCHUM.
SPRING-SCALES.



104,161, JOSEPH McGINNIS JOHNSON.
SCHOOL-FURNITURE.



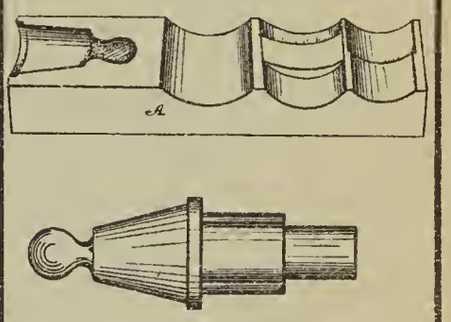
104,162, DANIEL B. JONES.
ROAD-SCRAPERS.



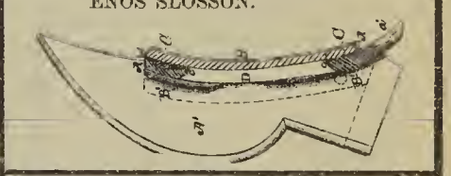
104,163, H. L. JUDD.
NAILS FOR PICTURES, &c.

104,164, H. L. JUDD. **TASSEL-HOOKS.**

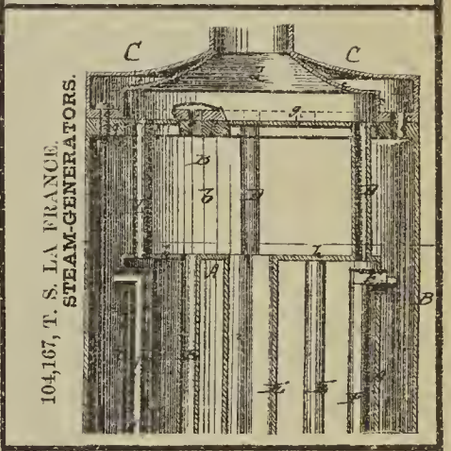
104,165, CHRISTIAN KONOLD.
DIES FOR FORGING VISE-BOXES.



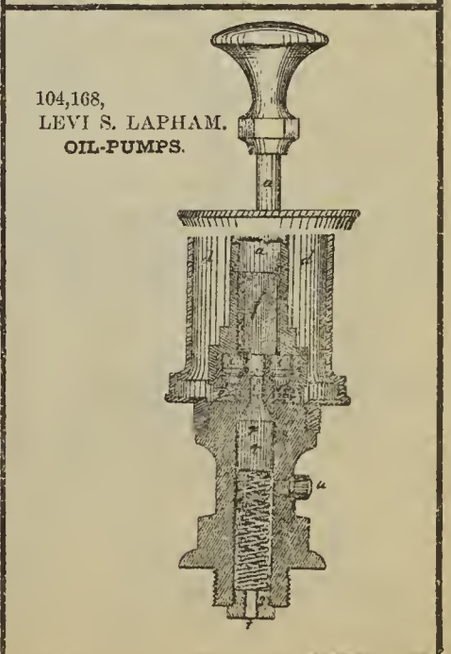
104,166, MATTHEW LAFLIN. **PLOWS.**
ENOS SLOSSON.



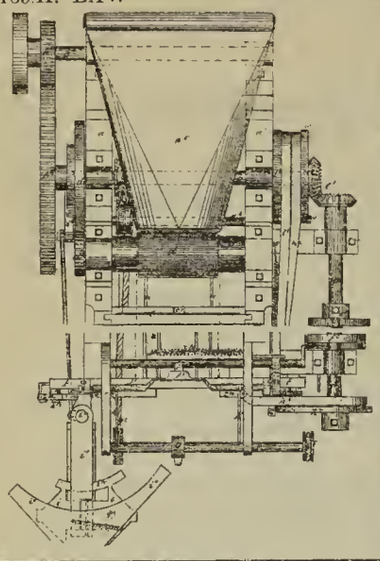
104,167, T. S. LA FRANCE.
STEAM-GENERATORS.



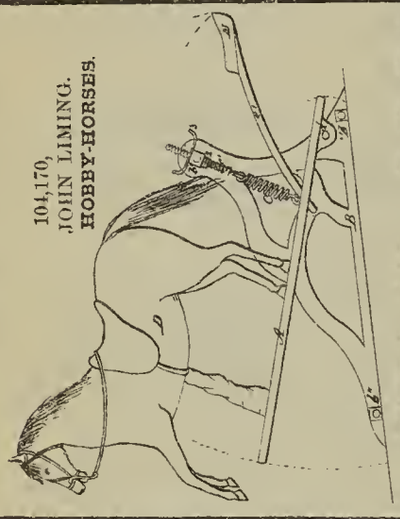
104,168,
LEVI S. LAPHAM.
OIL-PUMPS.



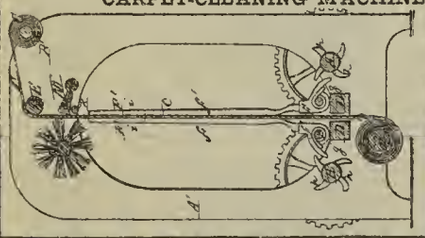
104,169, H. LAW. PAPER BAG MACHINE.



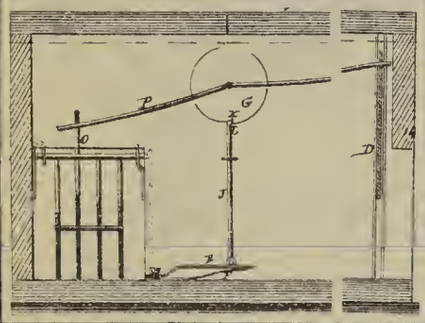
104,170, JOHN LIMING. HOBBY-HORSES.



104,171, H. HENRY LINDHORST. CARPET-CLEANING MACHINE.

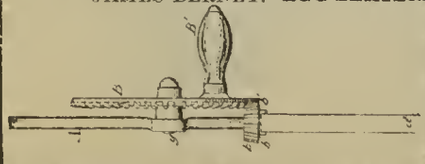


104,172, WM. D. LINDSLEY. ANIMAL-TRAP.

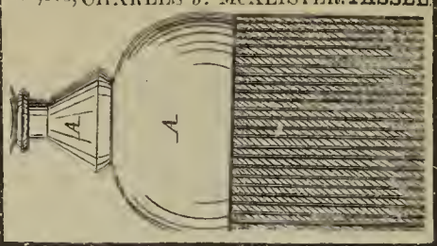


104,173, CHARLES LOCKWOOD. SCREENS.

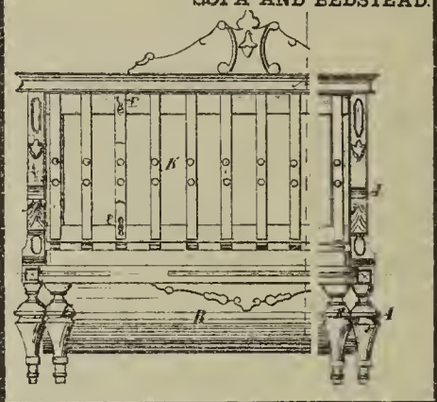
104,174, THOMAS MARSH. JAMES BERNEY. EGG-BEATER.



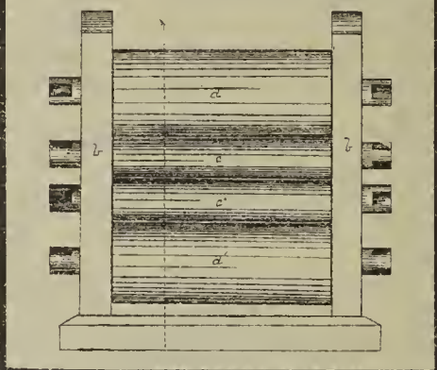
104,175, CHARLES J. McALISTER. TASSEL.



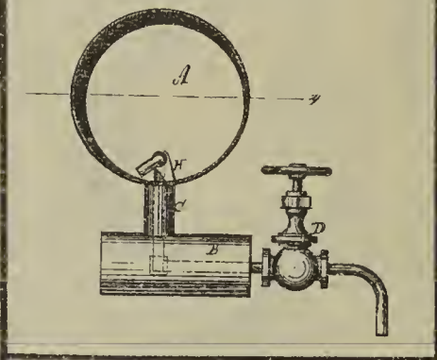
104,176, CHARLES J. McALISTER. SOFA AND BEDSTEAD.



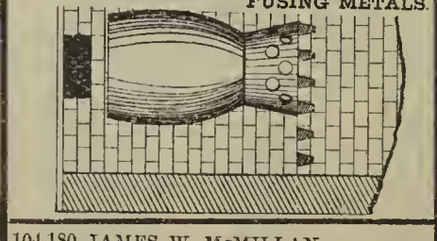
104,177, GEO. F. McCLEANE. "FOUR-HIGH ROLLS" FOR ROLLING METAL.



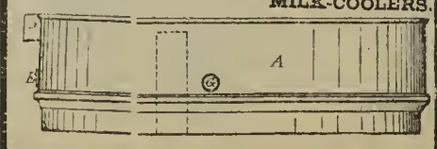
104,178, JOHN C. McLAUGHLIN. STEAM-BOILER BLOW-OFF PIPE.



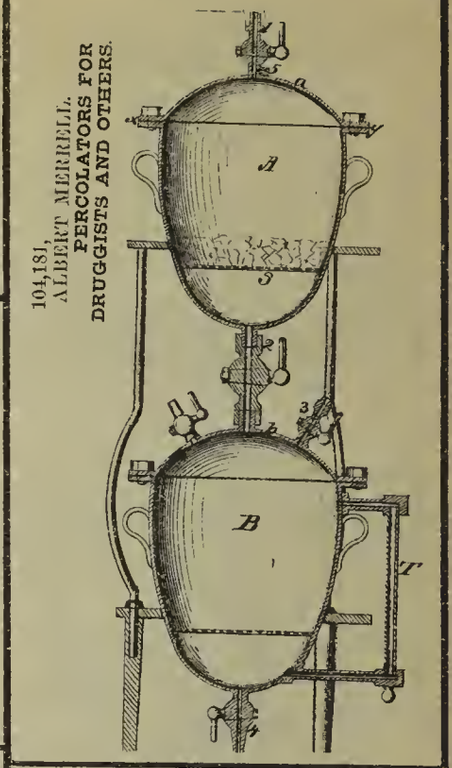
104,179, JAMES C. McMANUS. CRUCIBLE-STANDS FOR FUSING METALS.



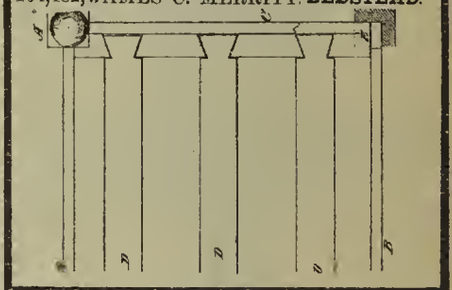
104,180, JAMES W. McMILLAN. MILK-COOLERS.



104,181, ALBERT MERRELL. PERCOLATORS FOR DRUGGISTS AND OTHERS.

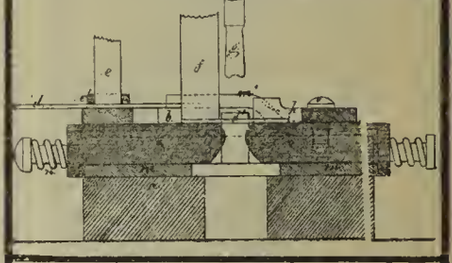


104,182, JAMES C. MERRITT. BEDSTEAD.

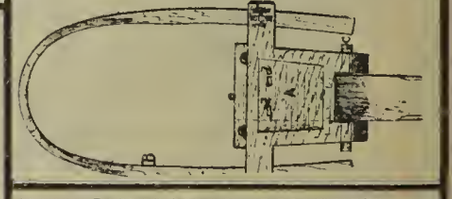


104,183, PURCHES MILES. DOUBLE-POINTED TACKS.

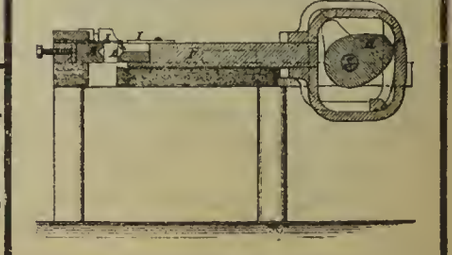
104,184, PURCHES MILES. MACHINE FOR MAKING DOUBLE-POINTED TACKS.



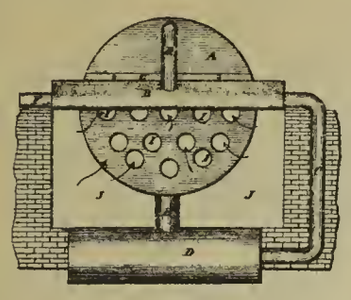
104,185, WARREN MILLER. HORSE AND CATTLE-POKE.



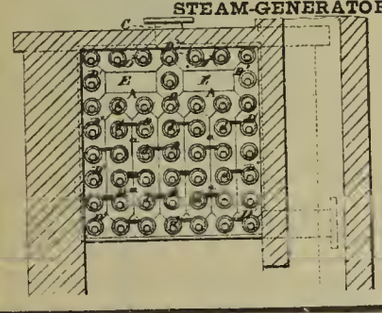
104,186, JAMES MORGAN. MACHINE FOR MAKING HARROW-TEETH.



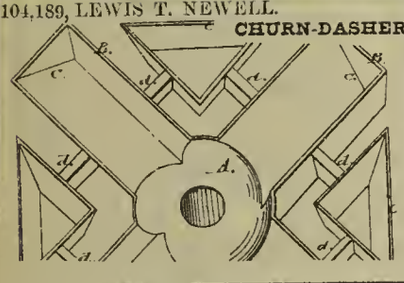
104,187, J. F. MORSE.
FEED-WATER HEATING APPARATUS.



104,188, JOSEPH NASON.
D. SAUNDERS.
STEAM-GENERATORS.

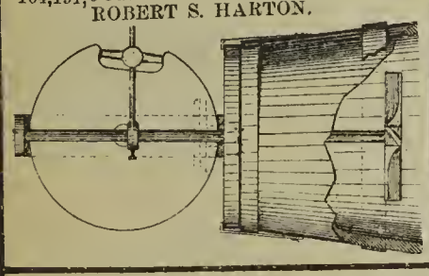


104,189, LEWIS T. NEWELL.
CHURN-DASHERS.

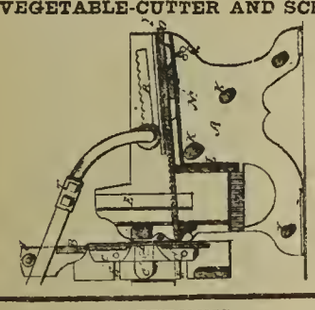


104,190, GEORGE G. NOAH.
MANUFACTURE OF PASTE.

104,191, JOHN H. ORMSBY. **CHURNS.**
ROBERT S. HARTON.

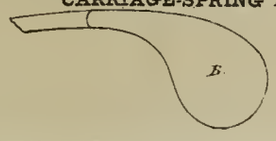


104,192, A. W. PAGETT.
VEGETABLE-CUTTER AND SCRAPER.

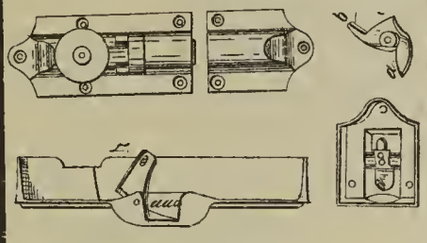


104,193, GEO. H. PERKINS.
METALLIC CAPS FOR TIN CANS.

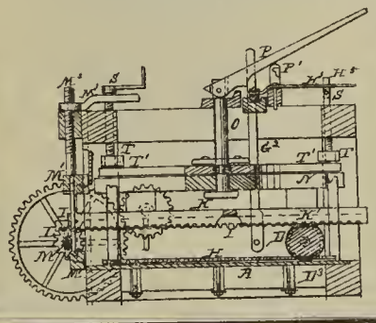
104,194, WALTER R. PETRIE.
MANUFACTURING CARRIAGE-SPRING HEADS.



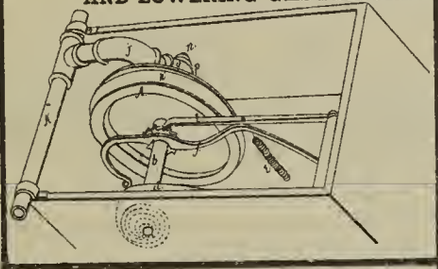
104,195, CHARLES E. PIERCE.
ALARM ATTACHMENTS FOR LOCKS AND BOLTS.



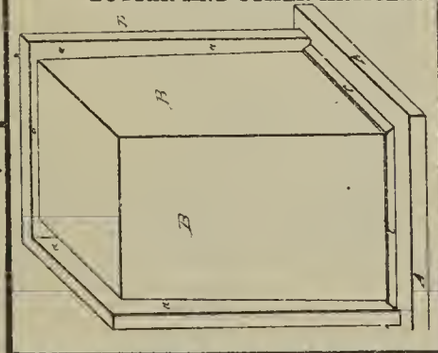
104,196, M. K. PIERCE.
SHEET-METAL-PIPE FORMING AND THREADING-MACHINE.



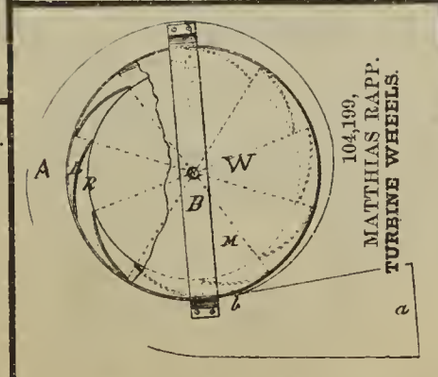
104,197, JOSEPH F. POND.
DEVICE FOR RAISING AND LOWERING GAS-FIXTURES.



104,198, WM. PRATT.
VESSELS FOR PACKING BUTTER AND OTHER ARTICLES.

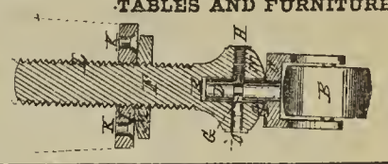


104,199, MATTHIAS RAPP.
TURBINE WHEELS.



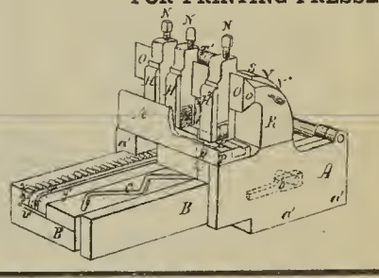
104,200, JOSEPH READ.
HEEL FOR BOOTS AND SHOES.

104,201, WILLIAM REAGAN.
CASTERS FOR BILLIARD-TABLES AND FURNITURE.

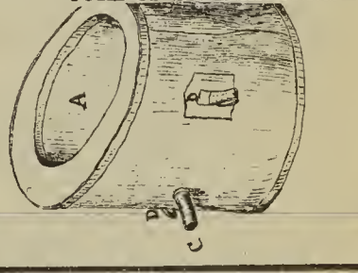


104,202, JAMES CLARENCE REED.
COMBS.

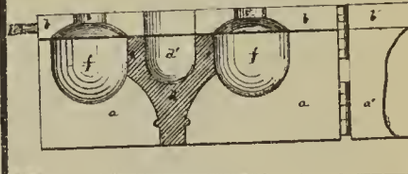
104,203, ISRAEL L. G. RICE.
INKING-APPARATUS FOR PRINTING-PRESSES.



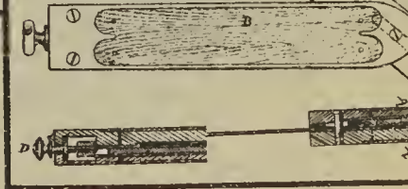
104,204, ISRAEL L. G. RICE.
APPARATUS FOR CURE OF SPERMATORRHŒA.



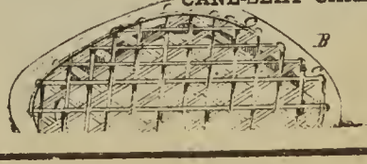
104,205, DANIEL C. RIPLEY.
MOLD FOR GLASS LAMPS.



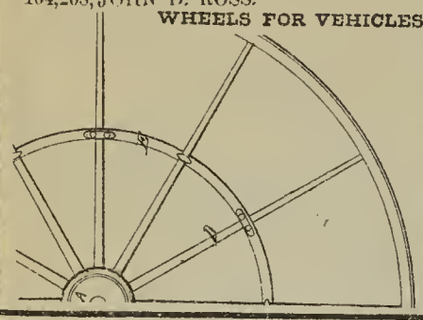
104,206, I. J. ROBINSON.
TRY-SQUARE AND BEVEL.



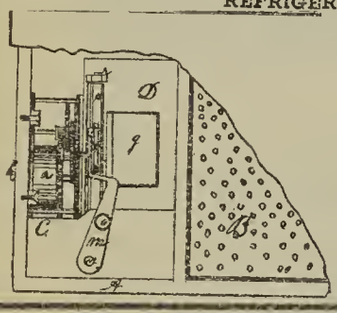
104,207, CHARLES M. ROHR.
CONSTRUCTION OF CANE-SEAT CHAIRS.



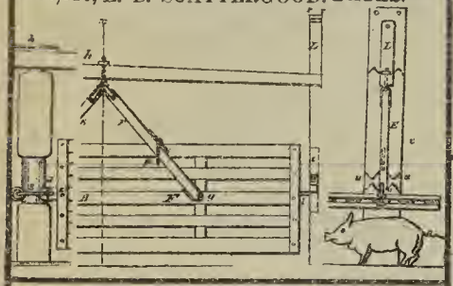
104,208, JOHN D. ROSS.
WHEELS FOR VEHICLES.



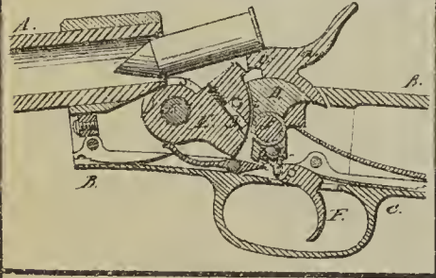
104,209, BENEDITT SAUTER.
REFRIGERATOR.



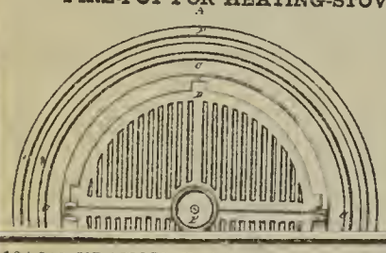
104,210, E. B. SCATTERGOOD. GATES.



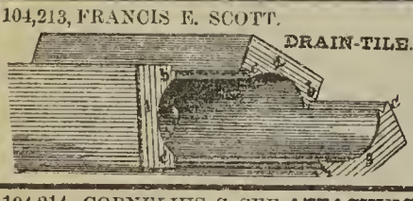
104,211, GEORGE W. SCHOFIELD.
BREECH-LOADING FIRE-ARMS.



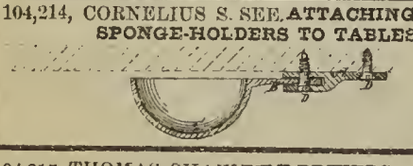
104,212, PHILIP J. SCHOPP. GRATE AND FIRE-POT FOR HEATING-STOVES.



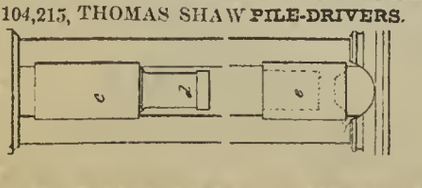
104,213, FRANCIS E. SCOTT.
DRAIN-TILE.



104,214, CORNELIUS S. SEE. ATTACHING SPONGE-HOLDERS TO TABLES.

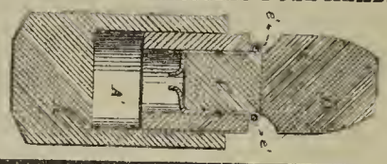


104,215, THOMAS SHAW PILE-DRIVERS.

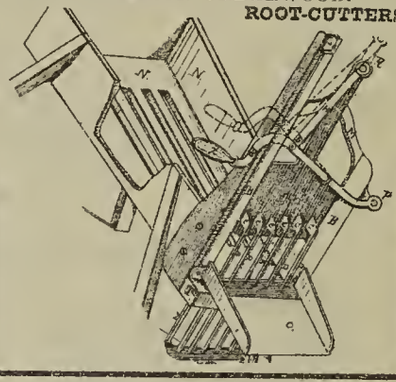


104,216, GERARD SICKELS.
EYE-GLASS HOLDERS.

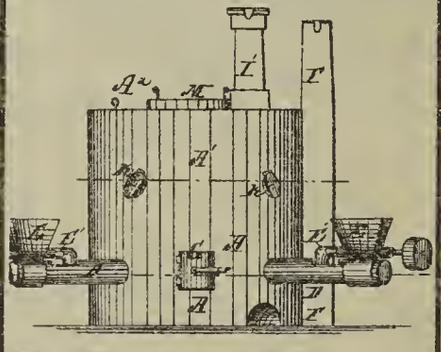
104,217, H. JULIUS SMITH.
ELECTRIC FUSE-HEADS.



104,218, JOHN F. SMITH.
HARRISON UNDERWOOD.
ROOT-CUTTERS.

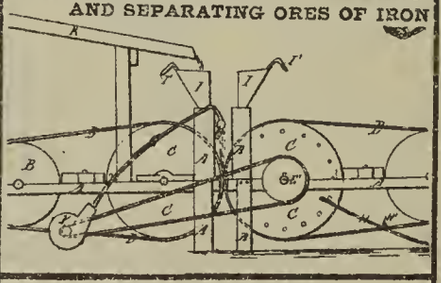


104,219. JOHN Y. SMITH. METALLURGIC FURNACE FOR IRON AND STEEL.

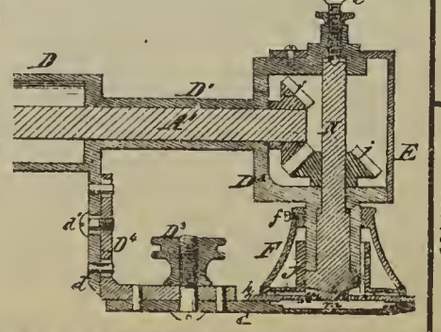


104,220, JOHN Y. SMITH.
PROCESS FOR PURIFYING AND REDUCING MAGNETIC ORES OF IRON.

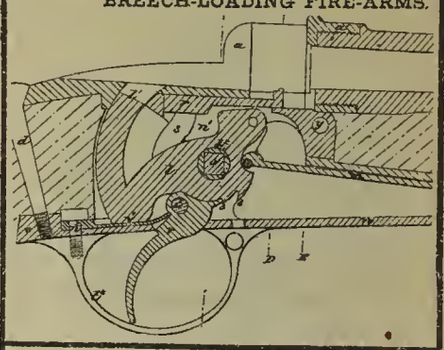
104,221, JOHN Y. SMITH.
MAGNETIC-MACHINE FOR CLEANING AND SEPARATING ORES OF IRON.



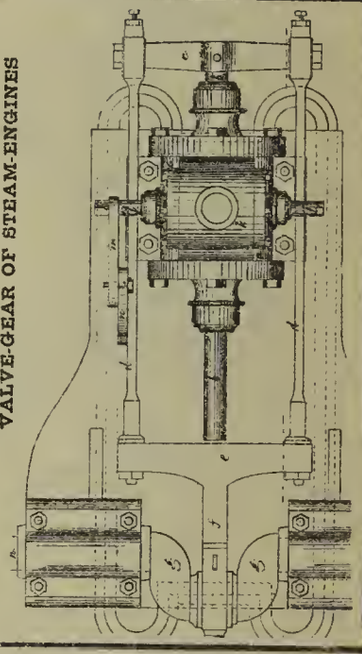
104,222, ROSWELL T. SMITH.
JOSEPH K. PRIEST.
WM. EARL.
ANIMAL-SHEARING MACHINE.



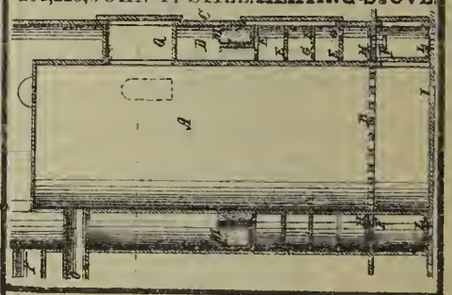
104,223, W. SOPER.
BREECH-LOADING FIRE-ARMS.



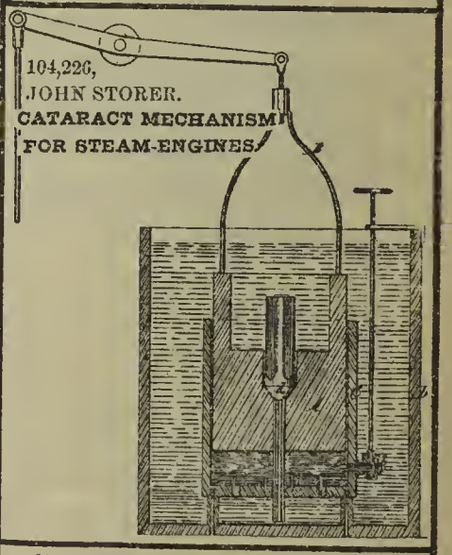
104,224, D. G. STARKEY.
VALVE-GEAR OF STEAM-ENGINES



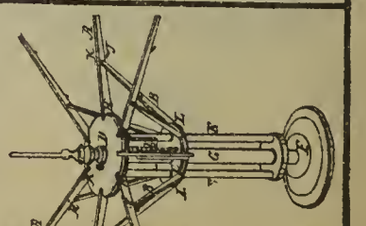
104,225, JOHN F. STILL. HEATING-STOVE.



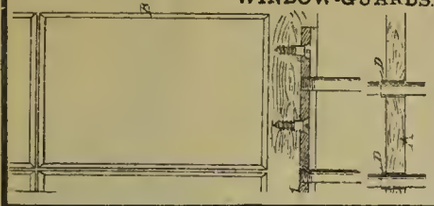
104,226,
JOHN STORER.
CATARACT MECHANISM FOR STEAM-ENGINES.



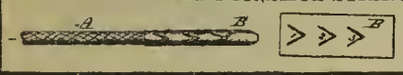
104,227,
LEROY M. STREETER.
CLOTHES-DRIER.



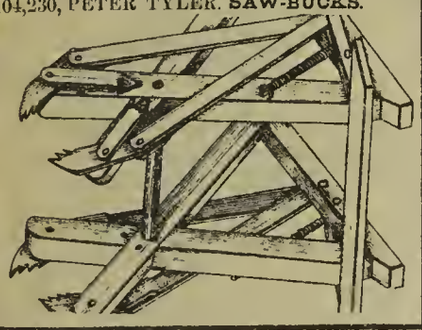
104,228, W. K. THOMAS. **WINDOW-GUARDS.**



104,229, JAMES TWAMLEY. **TAG FOR SHOE-STRINGS.**

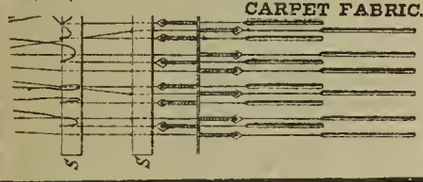


104,230, PETER TYLER. **SAW-BUCKS.**

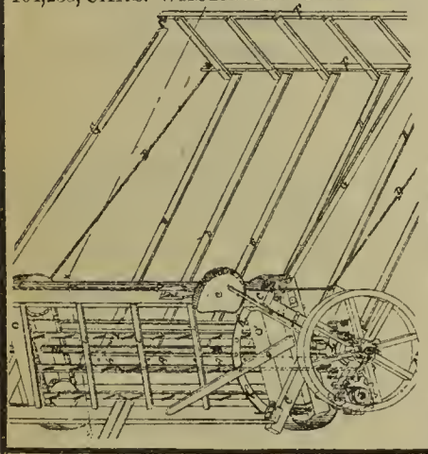


104,231, WENDELL P. VAN KLEECK. **EMERY POLISHING-WHEELS, &c.**

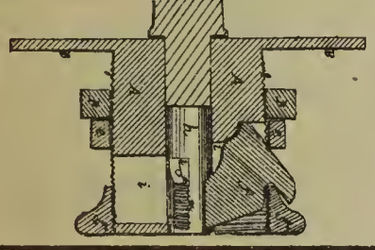
104,232, WILLIAM WALLACE. **CARPET FABRIC.**



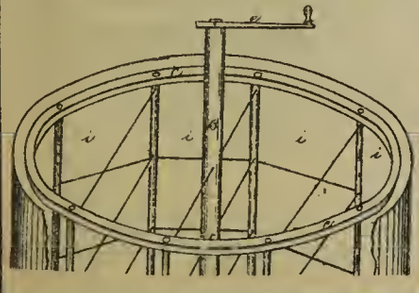
104,233, CHAS. WASTE. **HAY-GATHERER.**

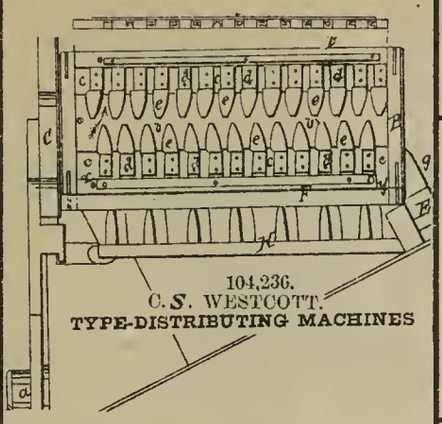


104,234, JAMES E. WEAVER. **DIE FOR CUTTING SCREW THREADS ON BOLTS.**



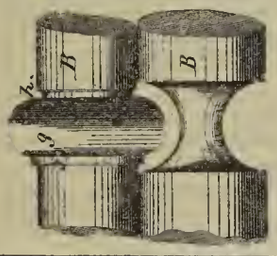
104,235, GLORY ANN WELLS. **DISH-WASHER.**



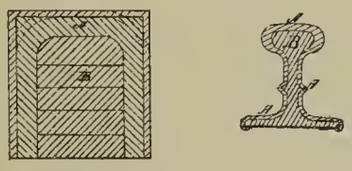


104,236. C. S. WESTCOTT. **TYPE-DISTRIBUTING MACHINES.**

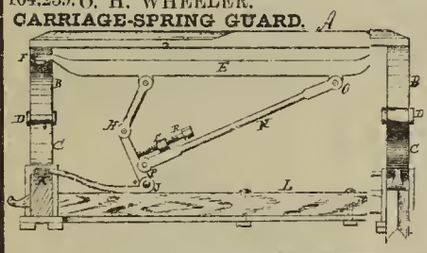
104,237, ELLRIDGE WHEELER. **COMBINED IRON AND STEEL BAR.**



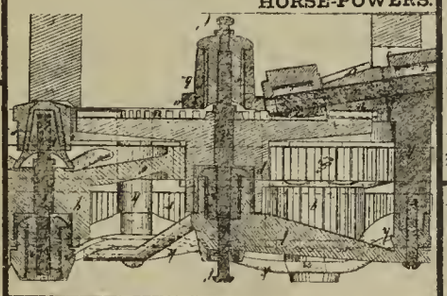
104,238, ELLRIDGE WHEELER. **THE MANUFACTURE OF RAILS FOR RAILROADS.**



104,239, O. H. WHEELER. **CARRIAGE-SPRING GUARD.**

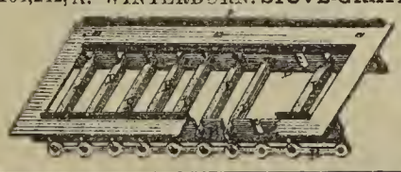


104,240, SETH WHEELER. **HORSE-POWERS.**

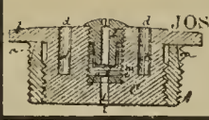


104,241, ROBERT WINTER. **COLORING PHOTOGRAPHS.**

104,242, A. WINTERBURN. **STOVE-GRATE.**



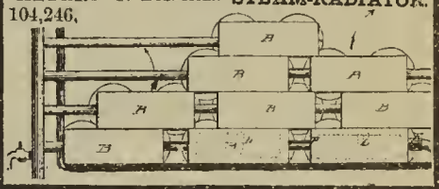
BENJ. F. WRIGHT. 104,243, **CHAIR-SEAT.**



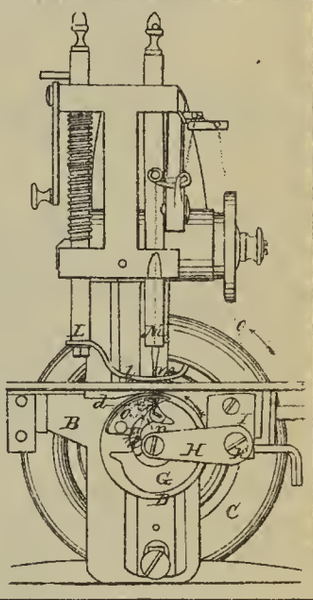
JOSEPH F. APPLEGATE. 104,244, **BUNGS.**

104,245, U. W. ARMSTRONG, IRA KEENEY. **METALLIC CONNECTION FOR MOSQUITO-NET FRAMES.**

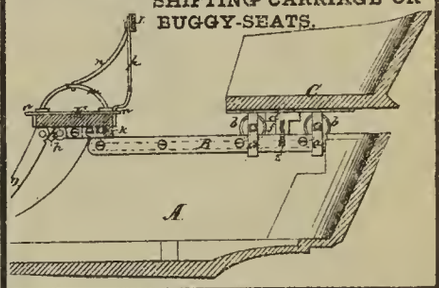
ALBERT C. BAKER. **STEAM-RADIATOR.** 104,246.



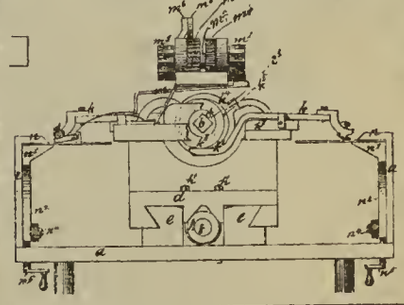
104,247, WALKER B. BARTRAM. **SEWING-MACHINES.**



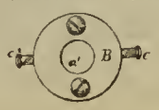
104,248, SYLVESTER W. BEACH. **SHIFTING CARRIAGE OR BUGGY-SEATS.**

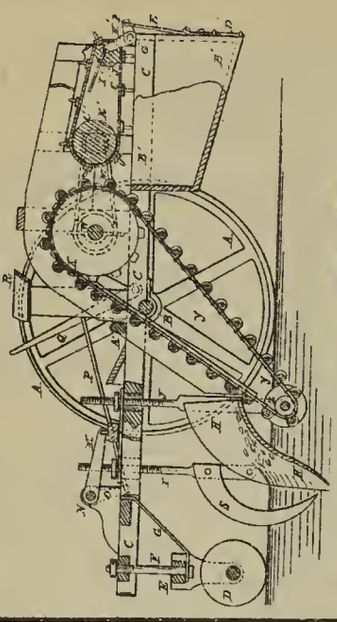


104,249, CHARLES S. BEMENT. **MACHINE FOR GRADUATING SQUARES.**



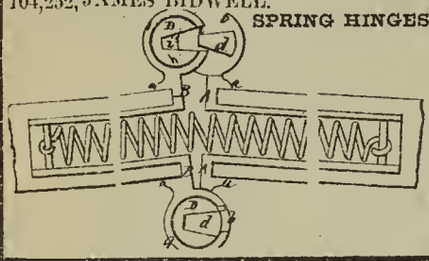
104,250, SAMUEL J. BESTOR. **CIGAR-PUNCH.**



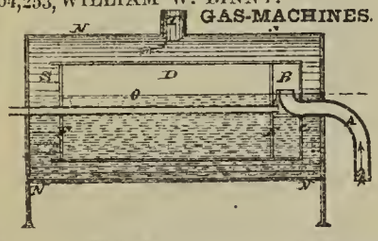


104,251, DANIEL BIBBEE, WILLIAM RAND. POTATO-DIGGERS.

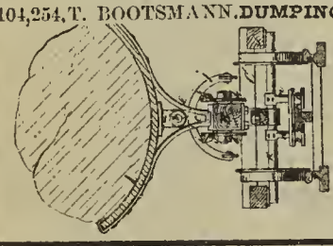
104,252, JAMES BIDWELL. SPRING HINGES.



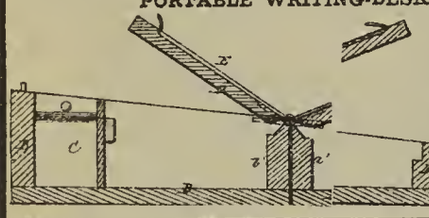
104,253, WILLIAM W. BINNY. GAS-MACHINES.



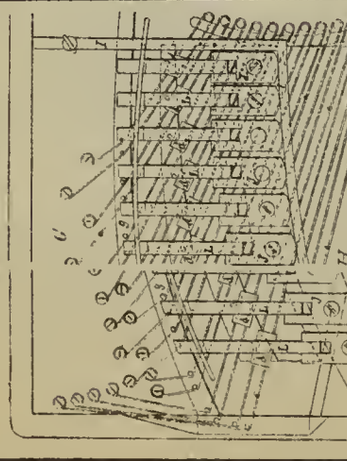
104,254, T. BOOTSMANN. DUMPING-CARS.



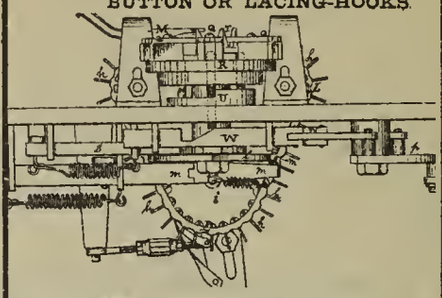
104,255, WILLIAM BOTHE. PORTABLE WRITING-DESK.



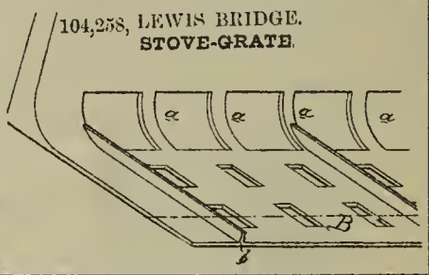
104,256, WILLIAM BOURNE. PIANO-FORTES.



104,257, HORACE C. BRADFORD. MACHINES FOR SETTING BUTTON OR LACING-HOOKS.

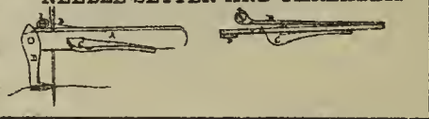


104,258, LEWIS BRIDGE. STOVE-GRATE.

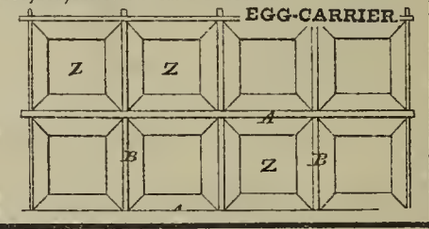


104,259, THOMAS BRISTOW. COLORING-MATTER FROM MADDER FOR DYEING.

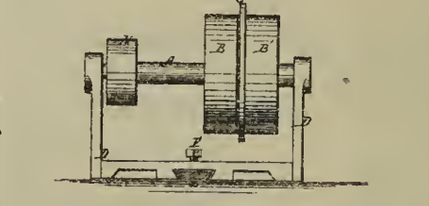
104,260, RUSSELL W. BROWN. NEEDLE-SETTER AND THREADER.



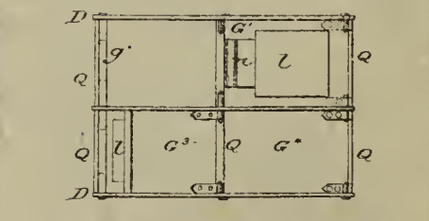
104,261, ABNER H. BRYANT. EGG-CARRIER.



104,262, ANDREW J. BURKE. GRINDING ATTACHMENT FOR CARDING-MACHINES.

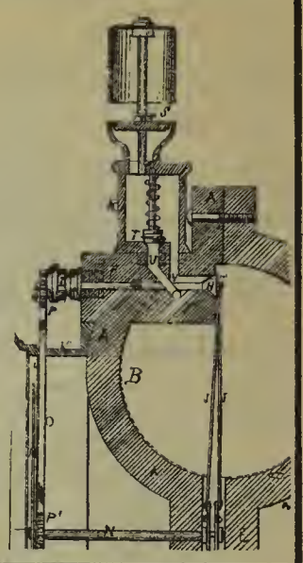


104,263, W. H. BUTLER. SAFE-DEPOSIT BOXES.

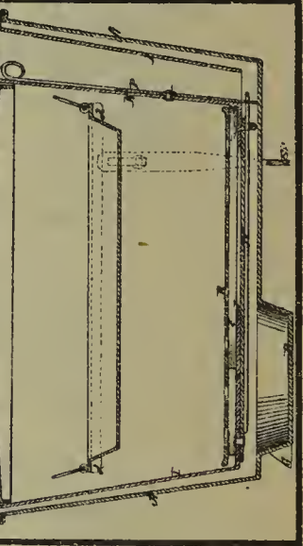


104,264, S. R. BUTTERFIELD. BOLT-HOLDERS.

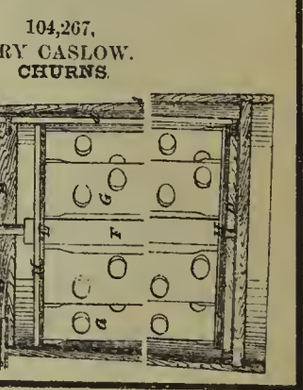
104,265, WILLIAM BUTTERFIELD. HIGH AND LOW-WATER INDICATOR.



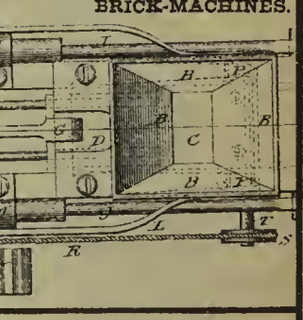
104,266, NATHAN T. CASE, EMMA J. CASE. WASHING AND COOKING-BOILER



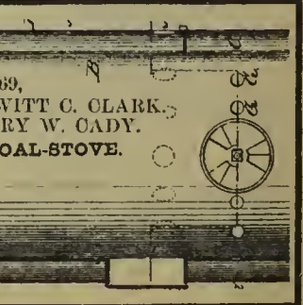
104,267, HENRY CASLOW. CHURNS.

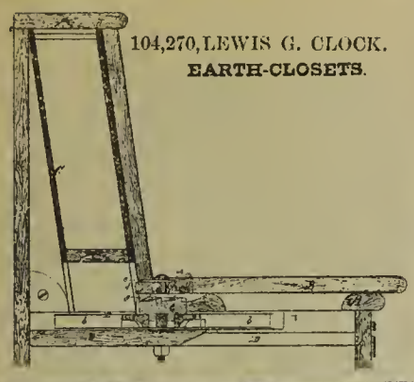


104,268, JOS. L. CHAPMAN. BRICK-MACHINES.



104,269, DE WITT C. CLARK, HENRY W. CADY. COAL-STOVE.

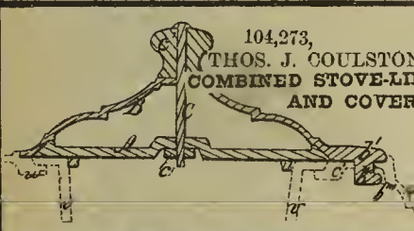




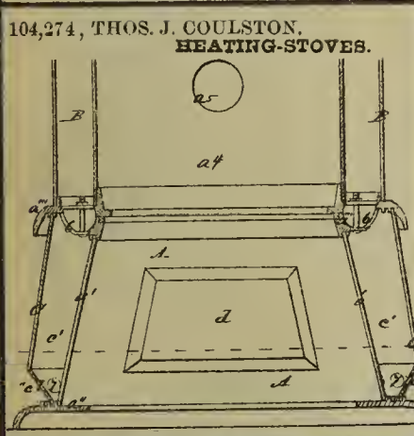
104,270, LEWIS G. CLOCK. EARTH-CLOSETS.

THEODORE CLOUGH. GAS-BURNERS. 104,271,

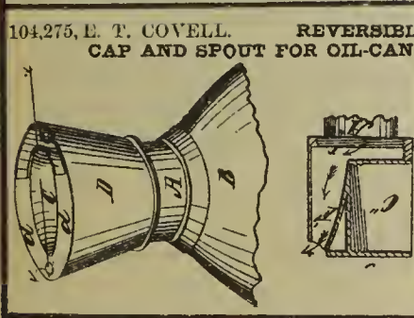
104,272, CYRUS COLE. STOVE-COVER. DISH, AND KETTLE-LIFTER.



104,273, THOS. J. COULSTON. COMBINED STOVE-LID AND COVER.

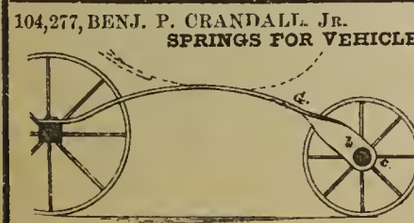


104,274, THOS. J. COULSTON. HEATING-STOVES.

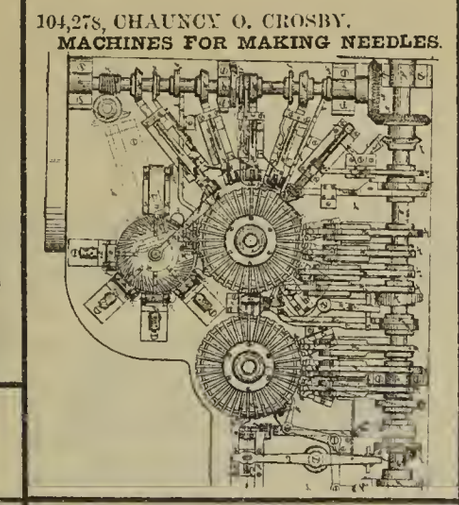


104,275, E. T. COVELL. REVERSIBLE CAP AND SPOUT FOR OIL-CANS.

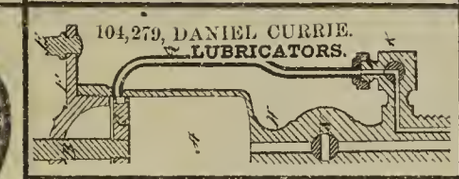
104,276, G. W. CRABTREE. J. G. STOAKES. COMPOSITION FOR TANNING.



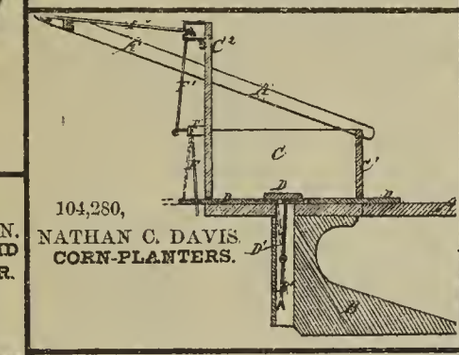
104,277, BENJ. P. CRANDALL, JR. SPRINGS FOR VEHICLES.



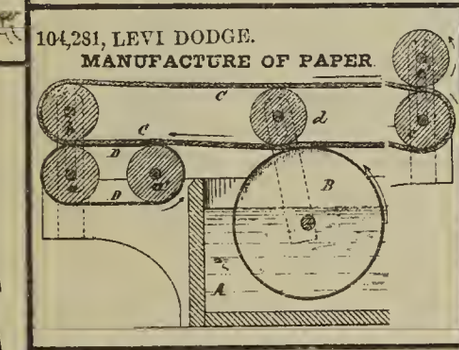
104,278, CHAUNCY O. CROSBY. MACHINES FOR MAKING NEEDLES.



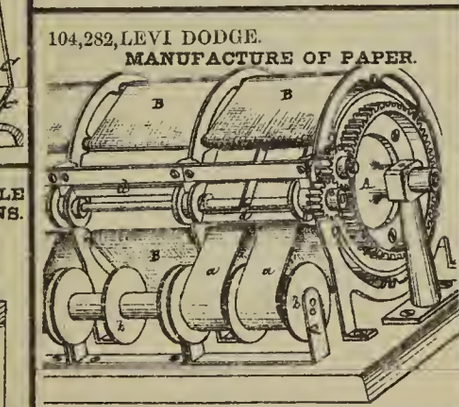
104,279, DANIEL CURRIE. LUBRICATORS.



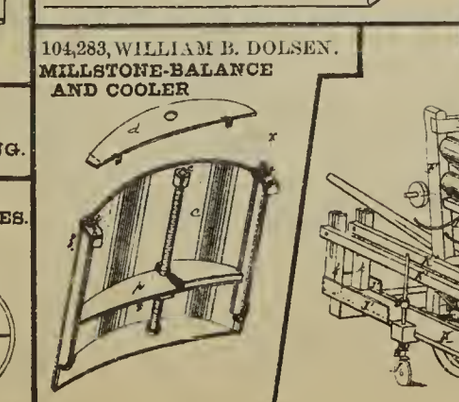
104,280, NATHAN C. DAVIS. CORN-PLANTERS.



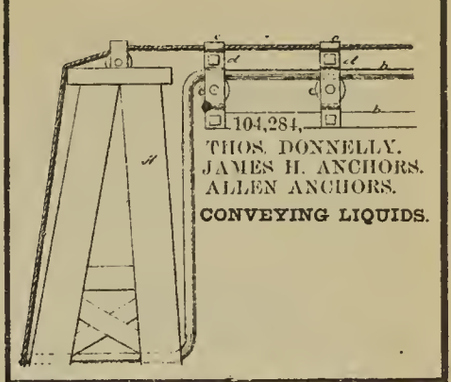
104,281, LEVI DODGE. MANUFACTURE OF PAPER.



104,282, LEVI DODGE. MANUFACTURE OF PAPER.

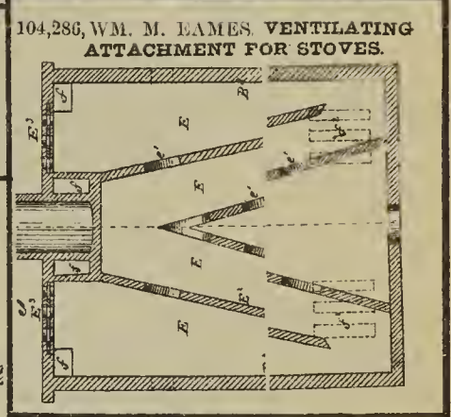


104,283, WILLIAM B. DOLSEN. MILLSTONE-BALANCE AND COOLER

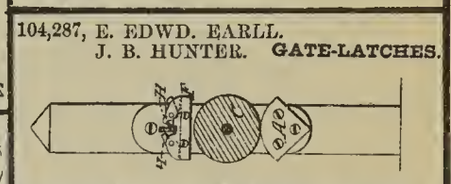


104,284, THOS. DONNELLY. JAMES H. ANCHORS. ALLEN ANCHORS. CONVEYING LIQUIDS.

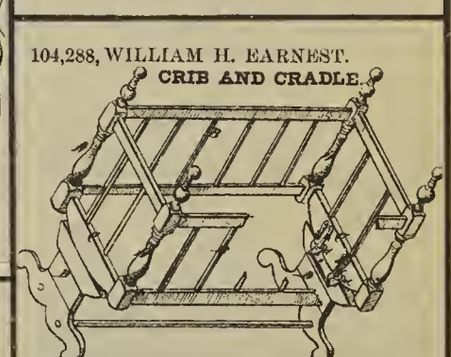
104,285, PETER DOYLE. FREDERICK P. COLTON. COMPOUND FOR POLISHING AND CLEANING MARBLE.



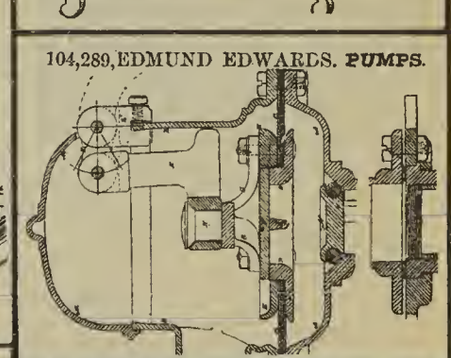
104,286, WM. M. EAMES. VENTILATING ATTACHMENT FOR STOVES.



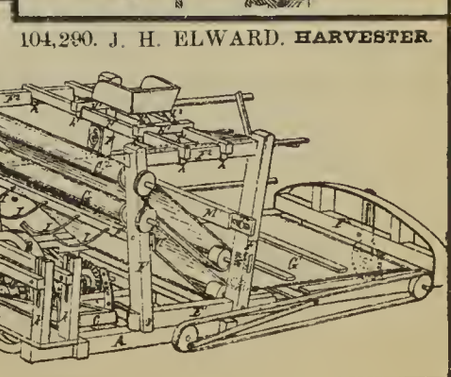
104,287, E. EDWD. EARLL. J. B. HUNTER. GATE-LATCHES.



104,288, WILLIAM H. EARNEST. CRIB AND CRADLE.

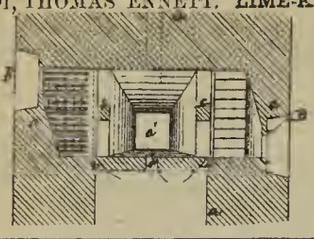


104,289, EDMUND EDWARDS. PUMPS.

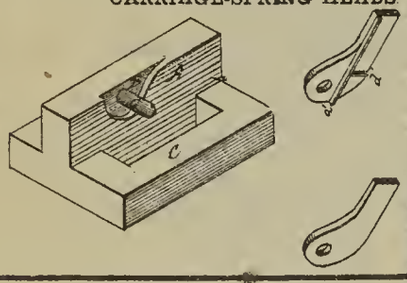


104,290. J. H. ELWARD. HARVESTER.

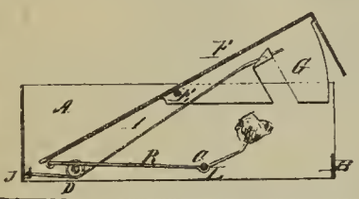
104,291, THOMAS ENNETT. **LIME-KILNS.**



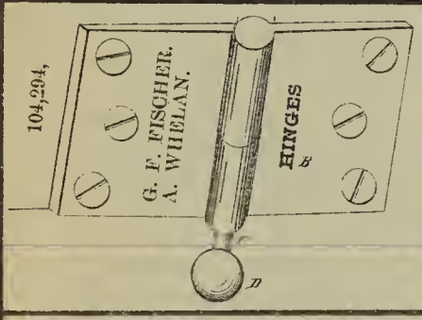
104,292, JOHN EVANS.
DIE FOR FORGING EARS FOR CARRIAGE-SPRING HEADS.



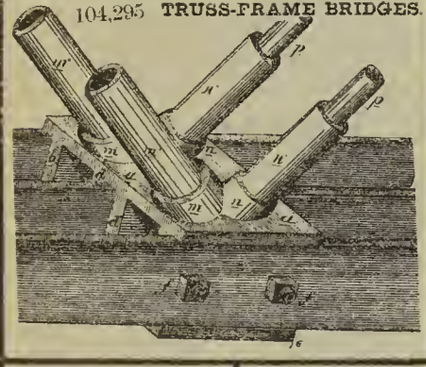
104,293, EDWIN BRONSON EVERITT.
ANIMAL-TRAP.



104,294, G. F. FISCHER. A. WHELAN.
HINGES



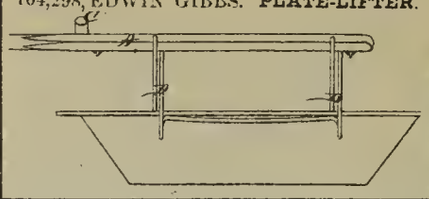
JOHN FOREMAN.
104,295 **TRUSS-FRAME BRIDGES.**



104,296, JOHN A. FRENCH.
EARTH-CLOSETS.

104,297, JACOB C. GEPHART.
BAG-FILLER FOR FANNING-MILLS.

104,298, EDWIN GIBBS. **PLATE-LIFTER.**



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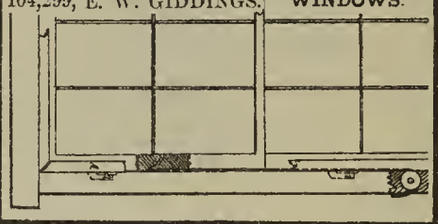

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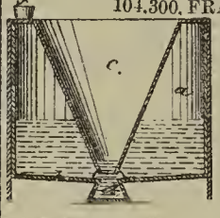
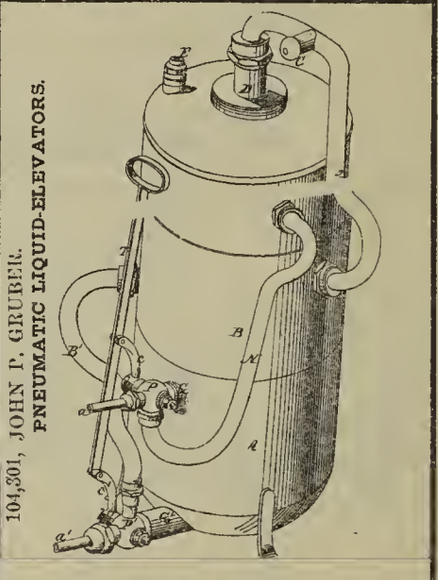
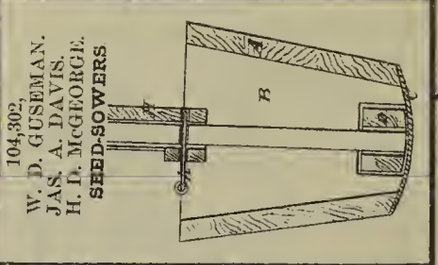
INKSTANDS.



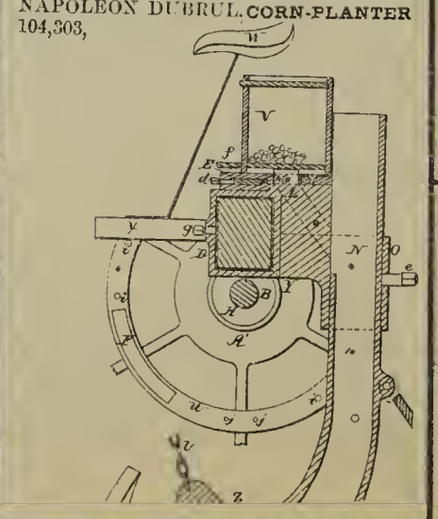
104,301, JOHN P. GRUBER.
PNEUMATIC LIQUID-ELEVATORS.



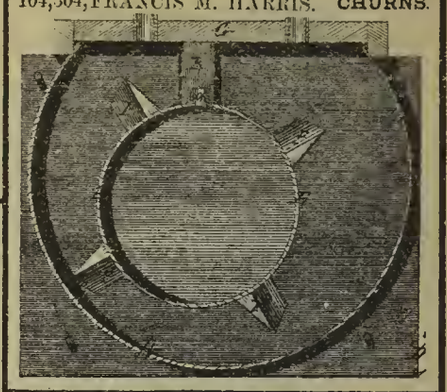
104,302, W. D. GUSEMAN. JAS. A. DAVIS. H. D. McGEORGE.
SEED-SOWERS.



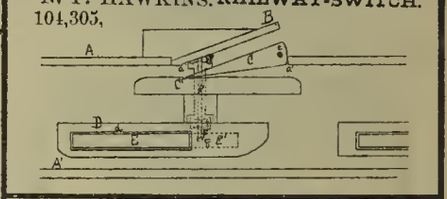
E. E. HARDY.
NAPOLEON DUBRUL. **CORN-PLANTER**
104,303,



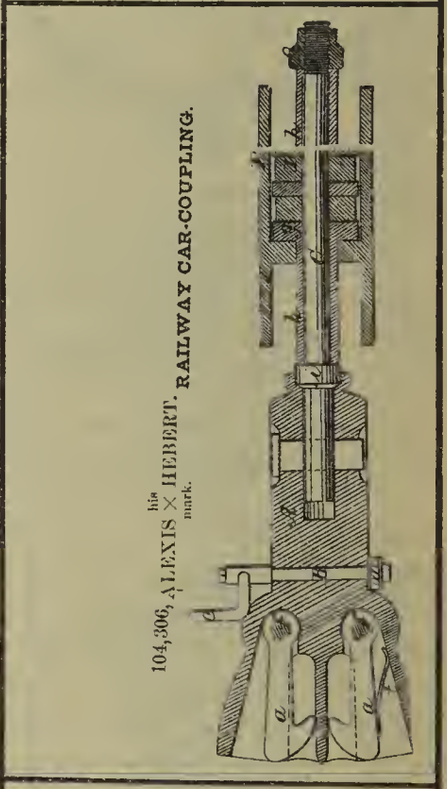
104,304, FRANCIS M. HARRIS. **CHURNS.**



N. F. HAWKINS. **RAILWAY-SWITCH.**
104,305,



104,306, ALEXIS × HEBERT. his mark. **RAILWAY CAR-COUPLING.**



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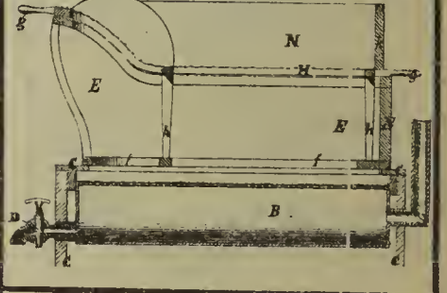
CHARLES SCHOLFIELD.
MEDICATED STEAM-BATH APPARATUS.



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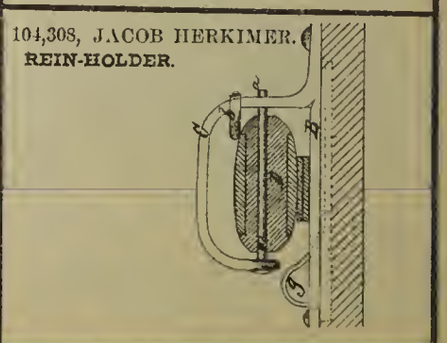
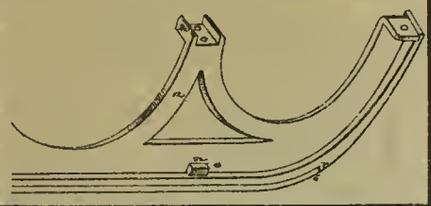
REIN-HOLDER.



104,309, DANIEL HOLDIMAN.
METAL SLEIGH-RUNNER.



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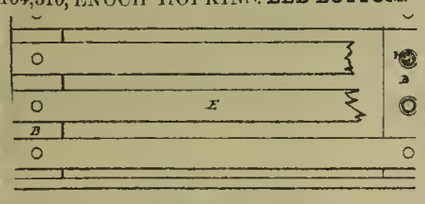
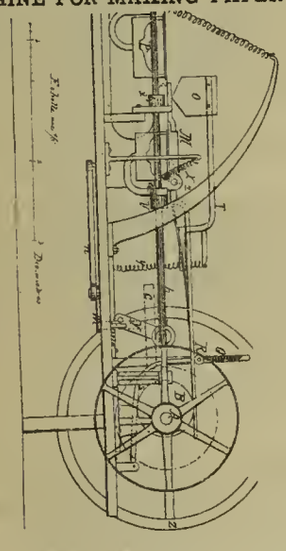
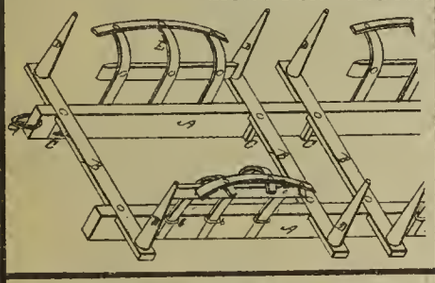


104,311, E. N. HORSFORD.
MEDICINAL AND OTHER MANUFACTURE OF BEVERAGES FOR PURPOSES.

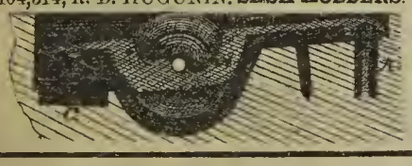
104,312, C. HOTZ.
MACHINE FOR MAKING PAPER TUBES.



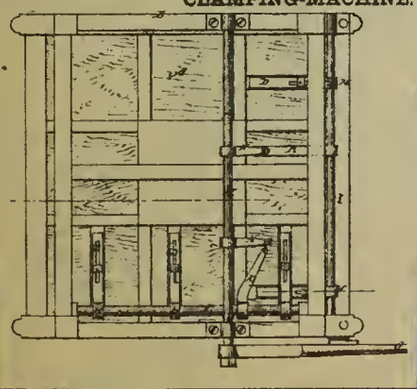
104,313, JOHN A. HUGHES.
HAY-SHELVES OR RACKS FOR WAGONS.



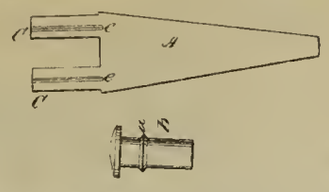
104,314, R. B. HUGUNIN. **SASH-HOLDERS.**



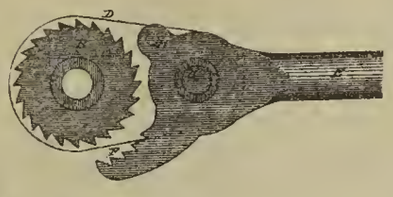
104,315, JAMES H. HUMES.
CLAMPING-MACHINE.



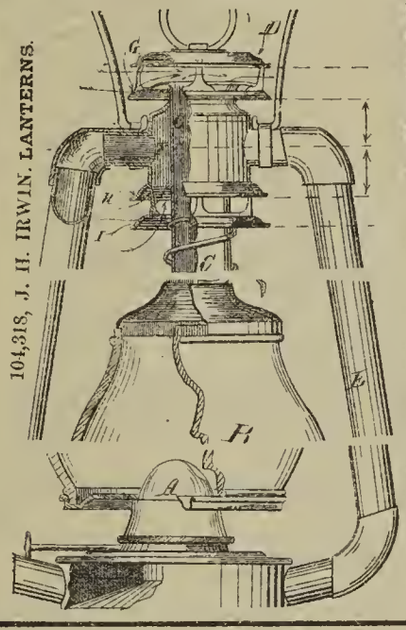
104,316, GEO. S. HURFORD. **HINGES.**



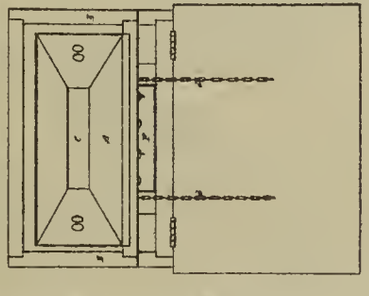
104,317, SIMON INGERSOLL.
RATCHET-DRILLS.



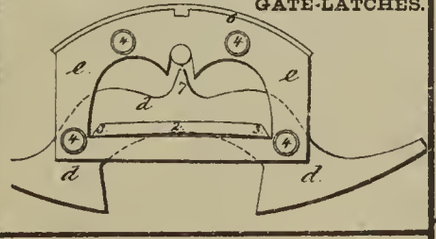
104,318, J. H. IRWIN. **LANTERNS.**



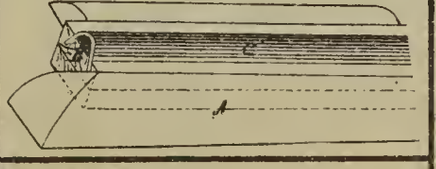
104,319, GEO. B. JEWETT.
EARTH-CLOSETS.



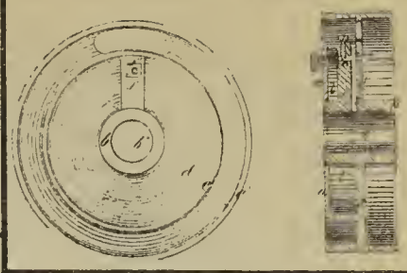
104,320, JOB JOHNSON.
SIMON INGERSOLL.
GATE-LATCHES.



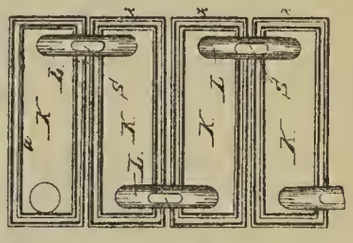
104,321, JOSEPH JOHNSTON **DOOR-SILLS.**
E. O. MARLOW.



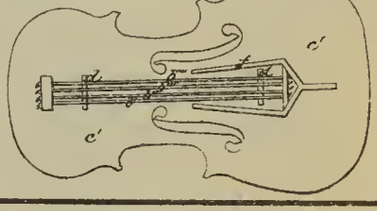
104,322, CHARLES A. KING.
OILERS FOR LOOSE PULLEYS.



104,323, RICHARD F. KNOX.
JOSEPH OSBORN.
FURNACE AND CONDENSER FOR REDUCING CINNABAR AND OTHER VOLATILE ORES.

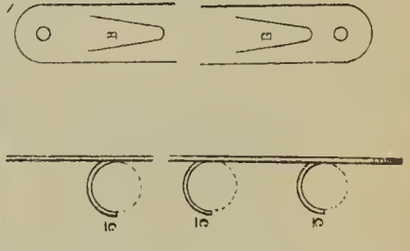


104,324, THOMAS P. KNOX. **VIOLINS.**



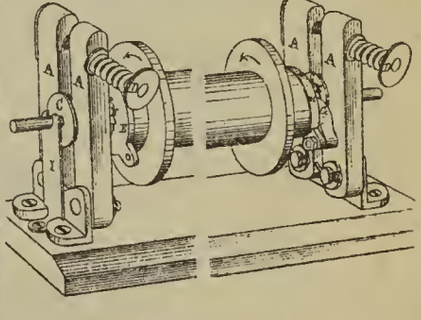
104,325, GABRIEL LEVERICH.
A. H. EMERY.
CONCRETE PAVEMENTS.

104,326, CHARLES B. LONG.
STEAM AND GAS-PIPE HOOK.

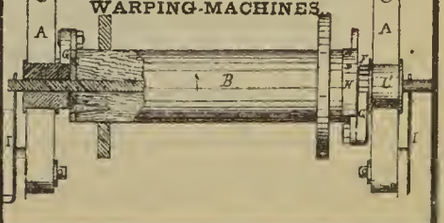


104,327, ORAZIO LUGO.
MANUFACTURE OF FERTILIZERS FROM FISH.

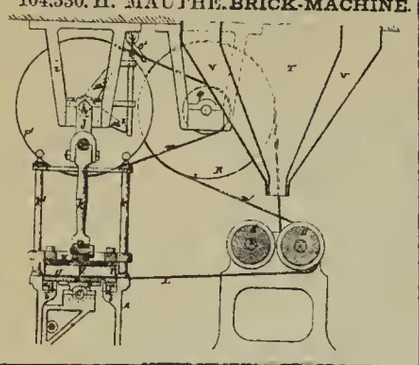
104,328, JAMES MAGEE.
LET-OFF MECHANISM FOR LOOMS.



104,329, COLIN MATHER.
WILLIAM ROSSETTER.
WARPING-MACHINES.

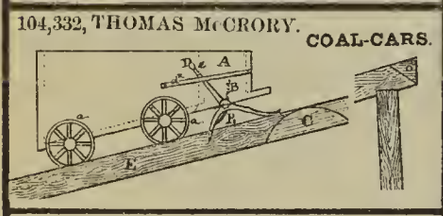


104,330. H. MAUTHE. BRICK-MACHINE.

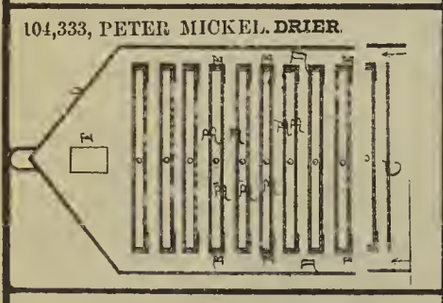


104,331,
L. J. McCORMICK.
WM. R. BAKER.
L. ERPELDING.
HARVESTERS.

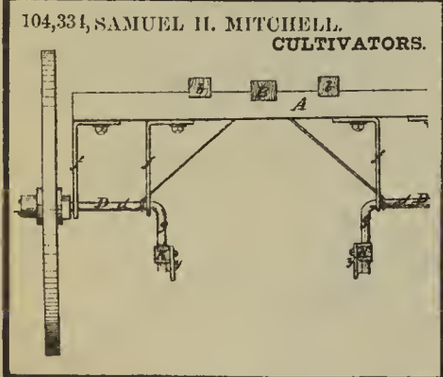
104,332, THOMAS McCRORY. COAL-CARS.



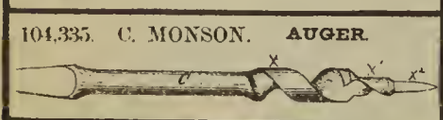
104,333, PETER MICKEL. DRIER.



104,334, SAMUEL H. MITCHELL. CULTIVATORS.

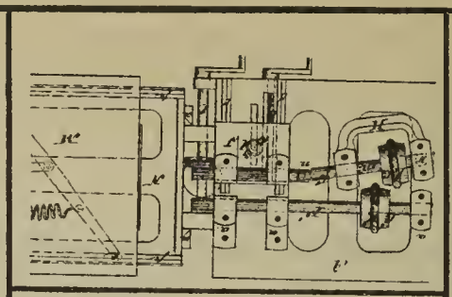


104,335. C. MONSON. AUGER.

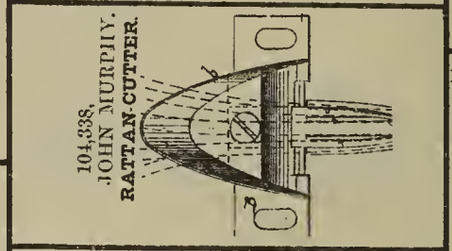


104,336, AUSTIN S. MORSE.
EDWIN A. JEFFERIES.
FIRE-KINDLER.

104,337. WILLIAM MORSTATT.
BORING-MACHINE.

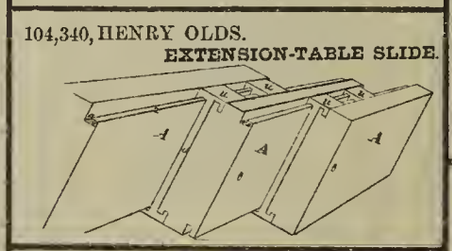


104,338. JOHN MURPHY. RATTAN-CUTTER.

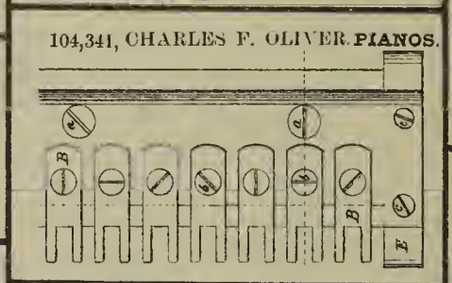


104,339. GEO. F. NEWCOMB.
BAGGAGE-CHECKS.

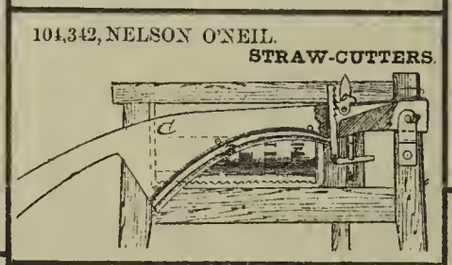
104,340, HENRY OLDS.
EXTENSION-TABLE SLIDE.



104,341, CHARLES F. OLIVER. PIANOS.

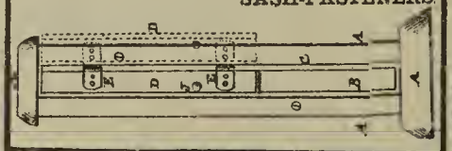


104,342, NELSON O'NEIL.
STRAW-CUTTERS.

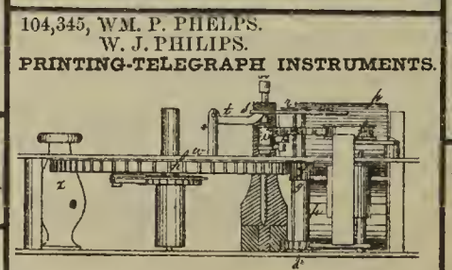


104,343, CHARLES CHAUNCY PARSONS.
PURIFYING ALCOHOL AND SPIRITS

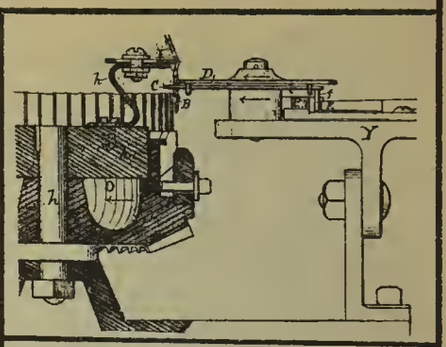
104,344, HOWARD PERKINS.
SASH-FASTENERS.



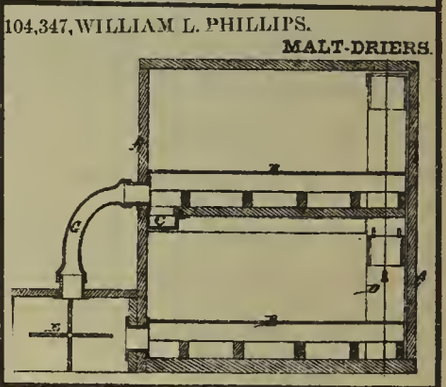
104,345, WM. P. PHELPS.
W. J. PHILIPS.
PRINTING-TELEGRAPH INSTRUMENTS.



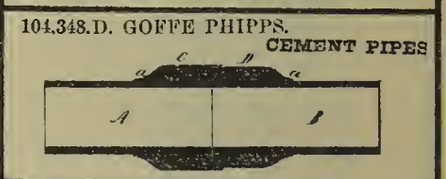
104,346. DAVID C. PHILIP.
CLARK TOMPKINS.
IRA TOMPKINS.
KNITTING-MACHINE



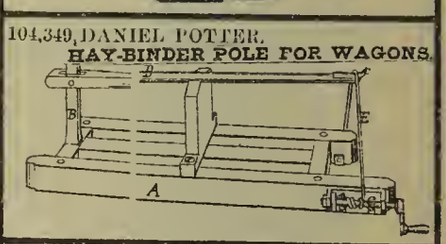
104,347, WILLIAM L. PHILLIPS.
MALT-DRIERS.



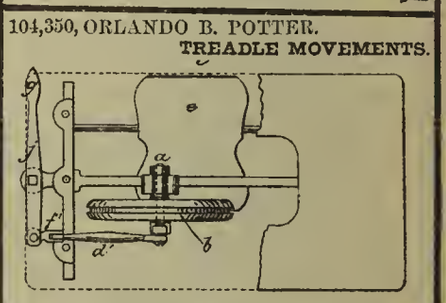
104,348. D. GOFFE PHIPPS.
CEMENT PIPES



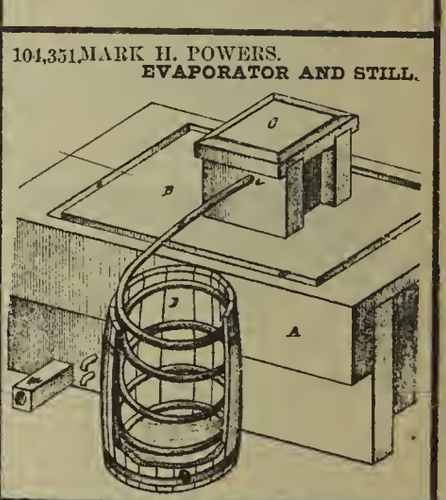
104,349, DANIEL POTTER.
HAY-BINDER POLE FOR WAGONS.



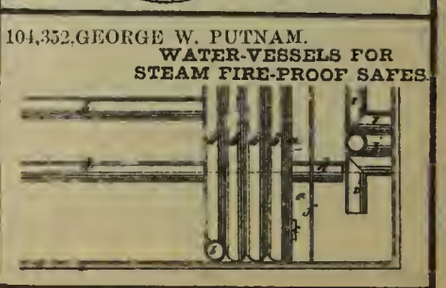
104,350, ORLANDO B. POTTER.
TREADLE MOVEMENTS.



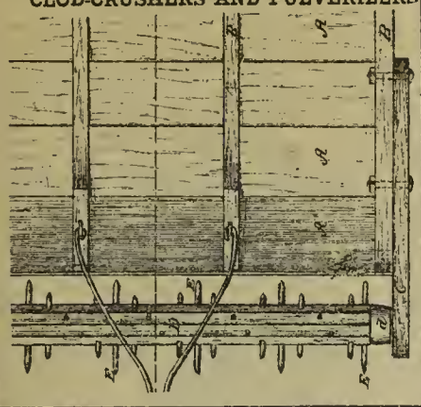
104,351. MARK H. POWERS.
EVAPORATOR AND STILL.



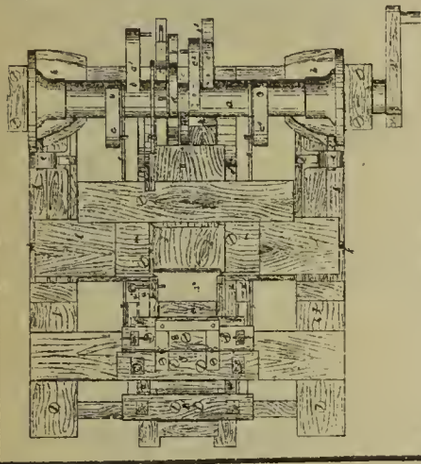
104,352. GEORGE W. PUTNAM.
WATER-VESSELS FOR
STEAM FIRE-PROOF SAFES.



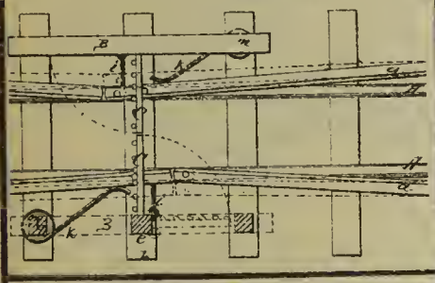
104,353, COMFORT R. RAMSEY.
CLOD-CRUSHERS AND PULVERIZERS.



104,354, SETH RIGBY, BRICK-MACHINE.

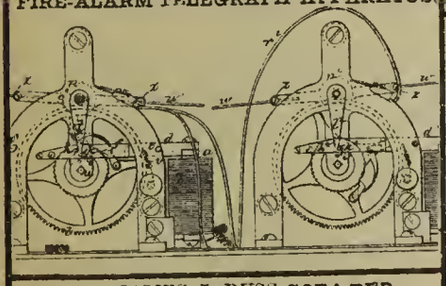


104,355, JOHN B. RITTENHOUSE.
JOSEPH COLLINS.
RAILWAY GATES.

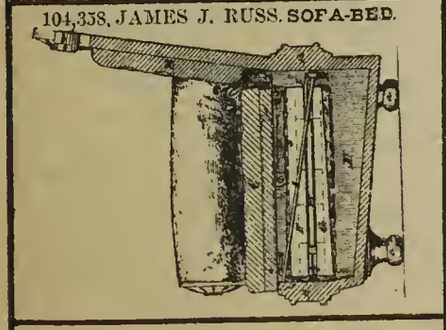


104,356, L. F. ROBERTSON. COMPOUND TO INCREASE THE FRICTION BETWEEN BELTS AND PULLEYS.

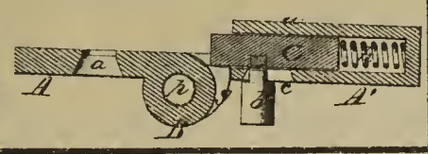
104,357, EDWIN ROGERS.
FIRE-ALARM TELEGRAPH APPARATUS.



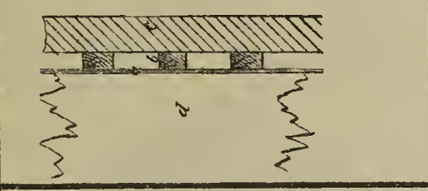
104,358, JAMES J. RUSS. SOFA-BED.



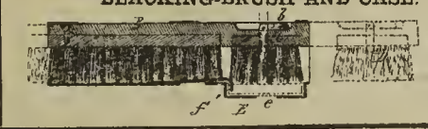
104,359, D. C. SAGE.
HINGES FOR BLINDS.



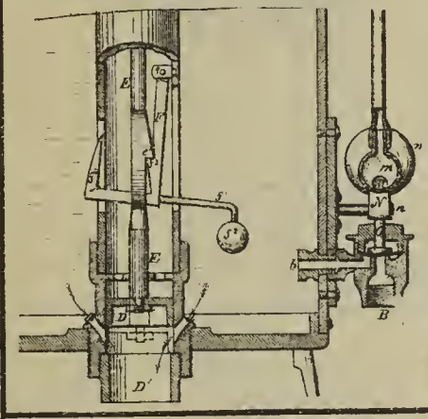
104,360, JOHN J. SCHILLINGER.
WALLS AND FLOORS FOR BUILDINGS.



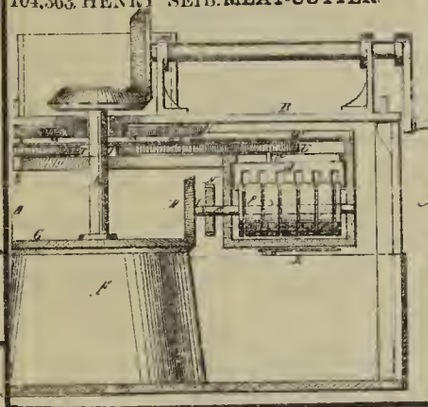
104,361, JOHN SCHWAB.
BLACKING-BRUSH AND CASE.



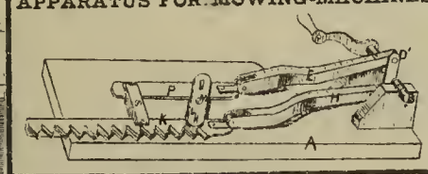
104,362, WM. D. SEAL. HYDRAULIC AIR-COMPRESSING APPARATUS.



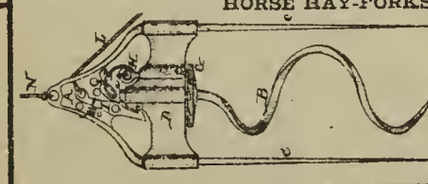
104,363, HENRY SEIB. MEAT-CUTTER.



104,364, HENRY F. SHAW. CUTTING APPARATUS FOR MOWING-MACHINES.

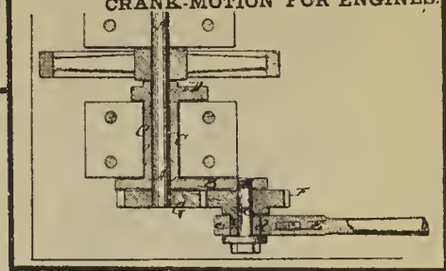


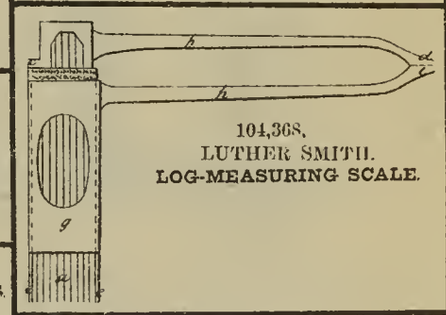
104,365, AMOS SHELLENBERGER.
HORSE HAY-FORKS.



104,366.
GEO. L. SMITH.
LAMP-BURNERS.

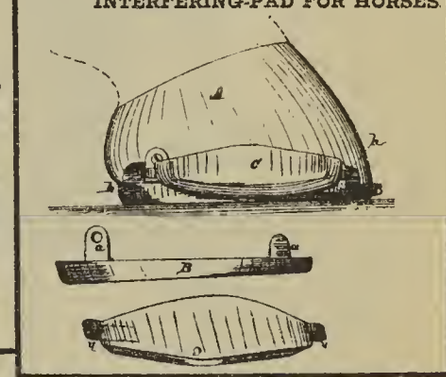
104,367, JOHN SMITH.
GODFREY JOITHE.
CRANK-MOTION FOR ENGINES.



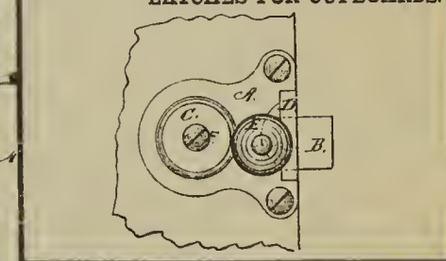


104,368.
LUTHER SMITH.
LOG-MEASURING SCALE.

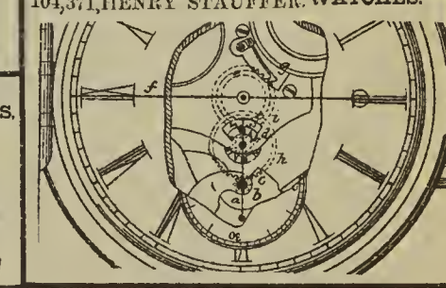
104,369, WM. SOMERVILLE.
INTERFERING-PAD FOR HORSES.



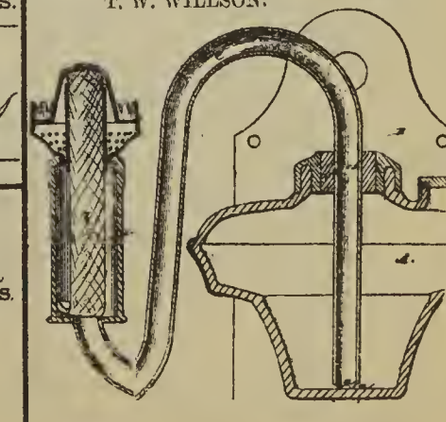
104,370, WILLIAM E. SPARKS.
LATCHES FOR CUPBOARDS.



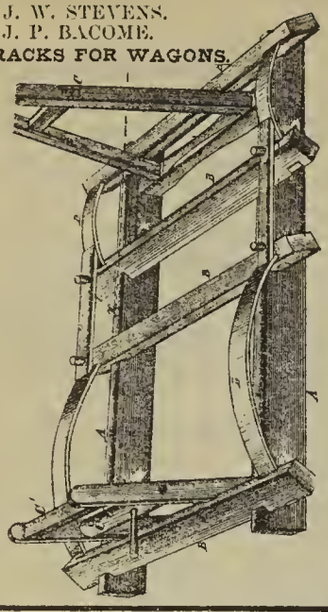
104,371, HENRY STAUFFER. WATCHES.



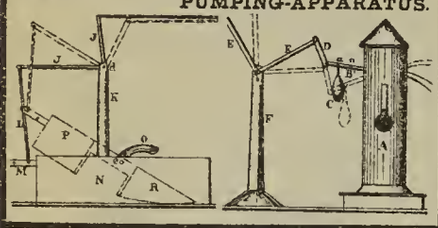
104,372, LEONARD STERLING. LAMPS.
T. W. WILLSON.



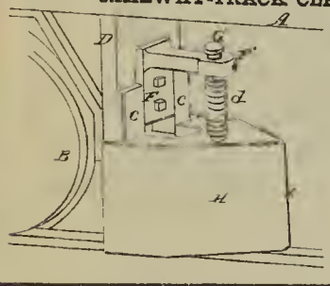
104,373, J. W. STEVENS.
J. P. BACOME.
HAY-RACKS FOR WAGONS.



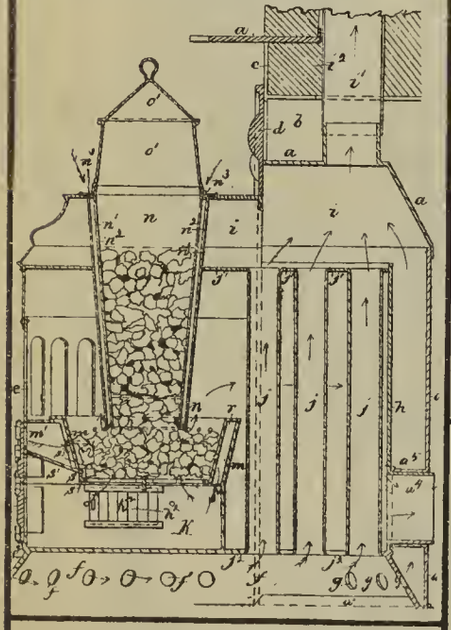
104,374, DAVID STONER.
PUMPING-APPARATUS.



104,375, R. R. TAYLOR.
RAILWAY-TRACK CLEARER.



104,376. J. M. THATCHER.
FIRE PLACE HEATER.



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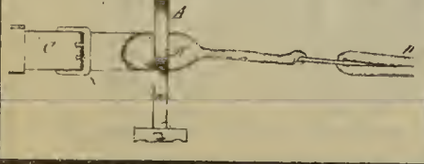
WM. A. HASTINGS.
CHECK-REIN ATTACHMENT.



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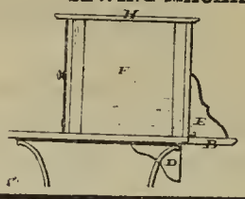
JUSTUS DOERING.
SEWING-MACHINE COVER.



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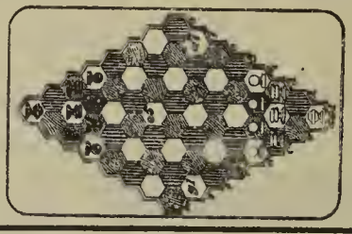
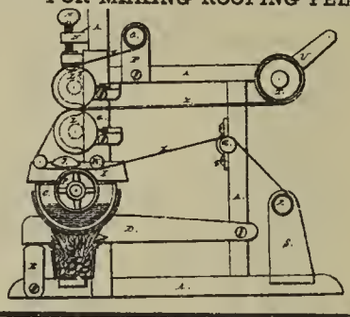


104,380, EDWARD VAN ORDEN. **MACHINE FOR MAKING ROOFING FELTING.**



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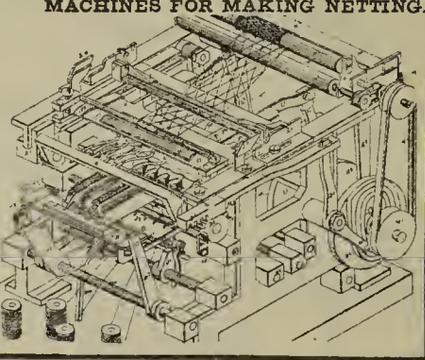
MACHINES FOR MAKING NETTING.



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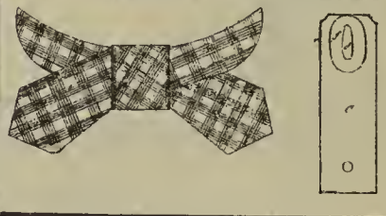
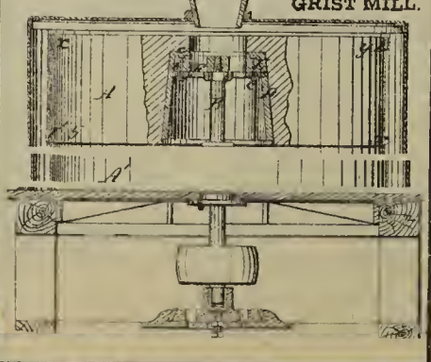
RUDOLPH L. WALTER. **PAPER OR PAPER-AND-CLOTH NECK-TIES.**



104,383, CHARLES C. WARREN.
JAMES B. BALDY.
PROCESS FOR CLEANING AND POLISHING COFFEE

104,384, CHARLES T. WESTON.
SIDNEY BROADBENT.
WILLARD B. CULVER.
GRIST MILL.



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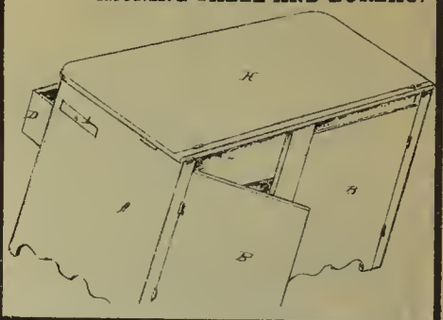
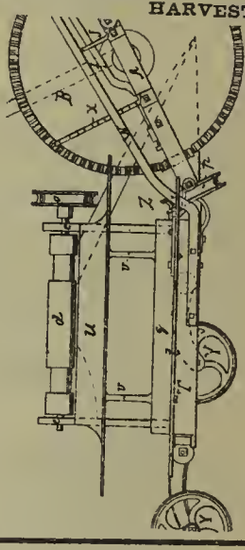
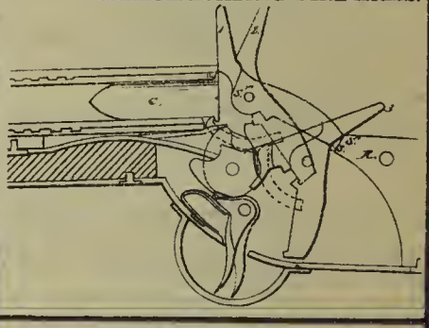
IRONING-TABLE AND BUREAU.



104,386. W. N. WHITELEY.
HARVESTER.



104,387. JAS. M. WHITTEMORE.
BREECH-LOADING FIRE-ARMS.



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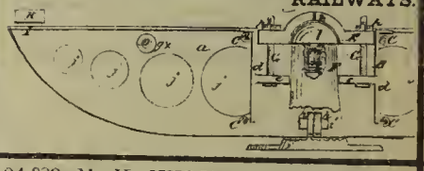
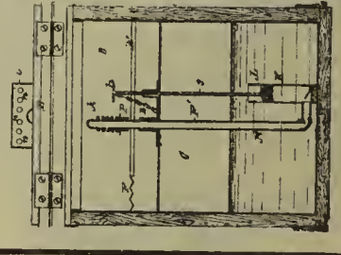
WILLIAM LEWIS MEEKER.
CAST-IRON TURN-TABLE FOR RAILWAYS.



104,389. M. H. WILEY **OIL CABINET.**



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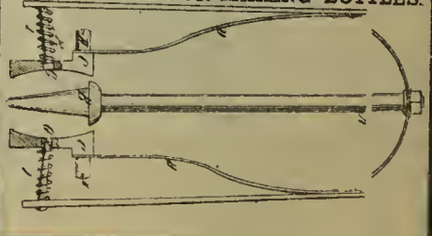
TOOL FOR MAKING BOTTLES.



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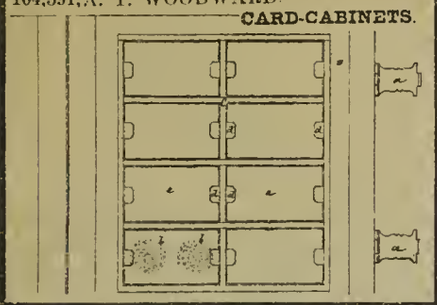
CARD-CABINETS.



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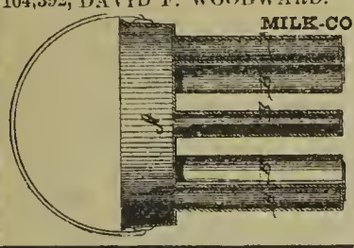
MILK-COOLERS



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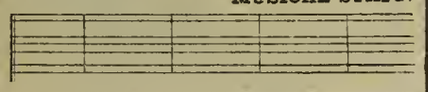
MUSICAL STAFF.



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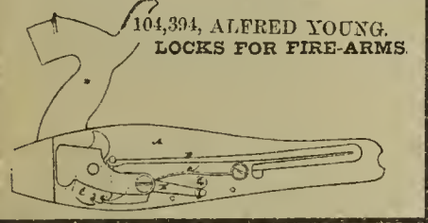
LOCKS FOR FIRE-ARMS.



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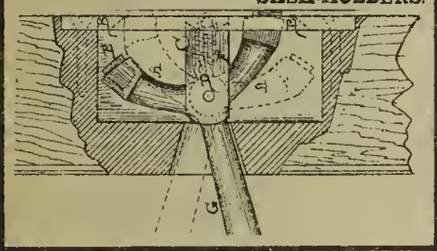
SASH-HOLDERS.



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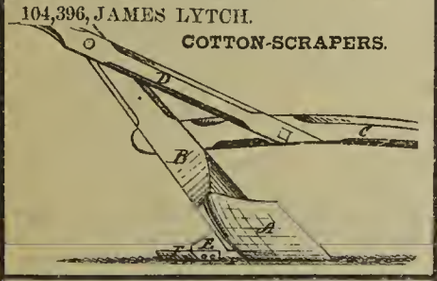
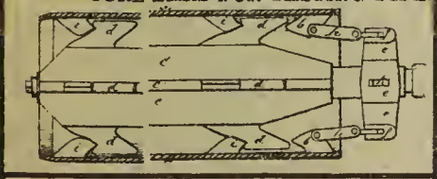
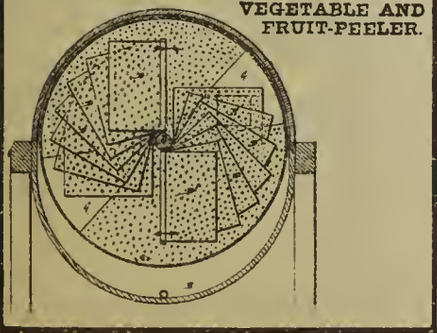
COTTON-SCRAPERS.



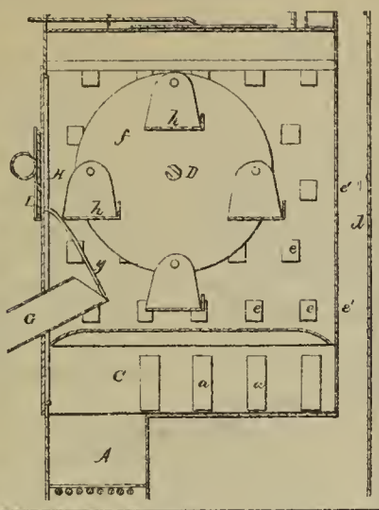
104,397, JOHN ENRIGHT.
CORE-BARS FOR CASTING PIPE.



4,025, E. D. AVERELL.
JOSEPH MALAN.
VEGETABLE AND FRUIT-PEELER.



4,026. H. BALL. **OVEN.**



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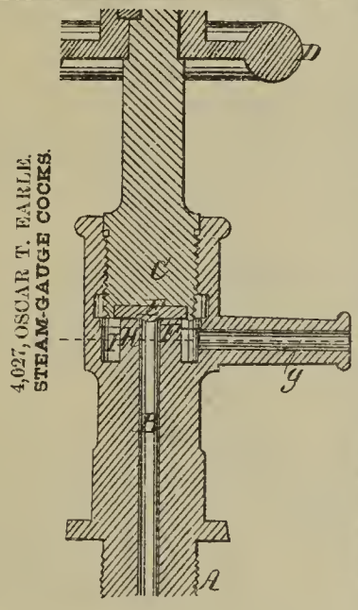
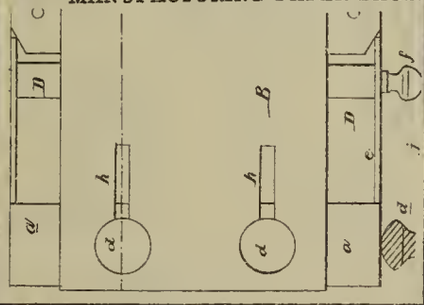
STEAM-GAUGE COCKS.

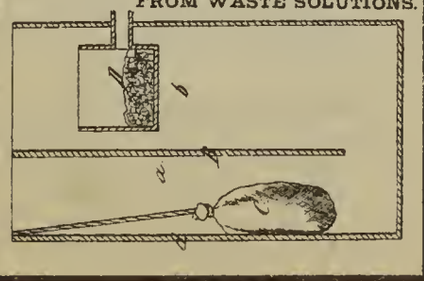


4,028, JAMES L. HAVEN & CO.
BEDSTEAD-FASTENING.

4,029. E. J. HOWLETT. **TOOL FOR MANUFACTURING PAPER BAGS.**

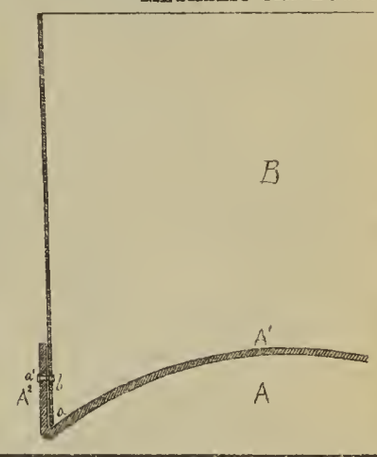


4,030, JEHYLEMAN SHAW.
RECOVERING GOLD AND SILVER FROM WASTE SOLUTIONS.

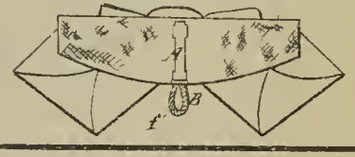


4,031, LOUISE F. SHAW. **IMITATION HAIR FOR LADIES' HEAD-DRESS.**

4,032, H. W. SHEPARD.
ROBT. SEAMAN.
METALLIC CAN-BOTTOM.



4,033, DENNIS H. TIERNEY.
FASTENINGS FOR NECK-TIES.



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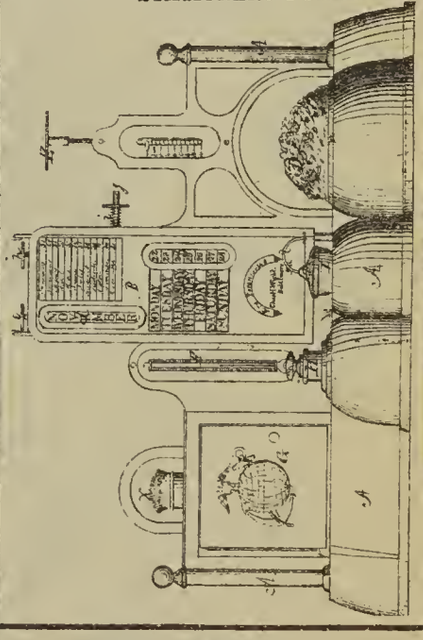
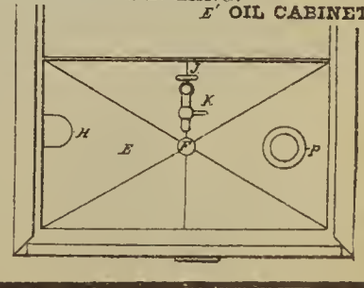
STATIONERY FURNITURE.



4,035, MOSES H. WILEY.
THOMAS MILLER.
JOHN H. B. LANG.
E' OIL CABINETS.



ILLUSTRATIONS OF PATENTS

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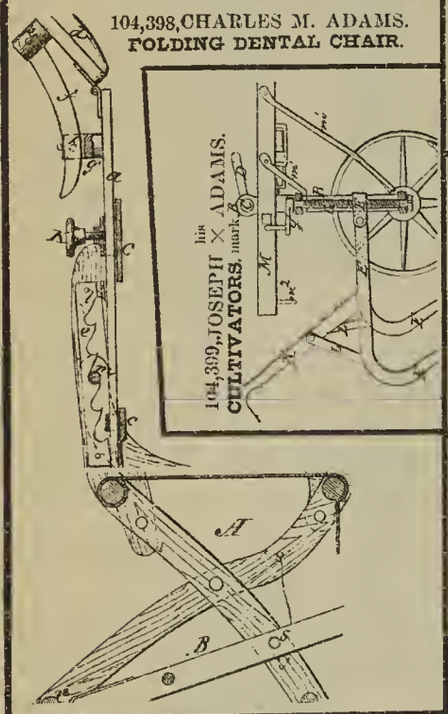
JUNE 21, 1870.

104,398, CHARLES M. ADAMS.
FOLDING DENTAL CHAIR.



104,399, JOSEPH × ADAMS. his mark.
CULTIVATORS.

104,400, DAVID ADAMSON.
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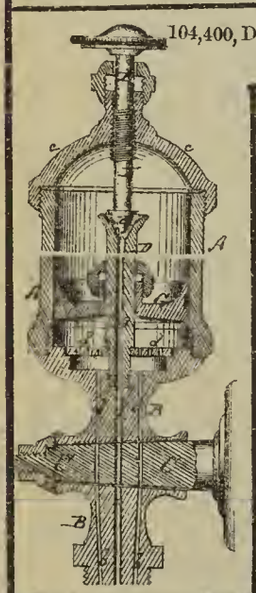

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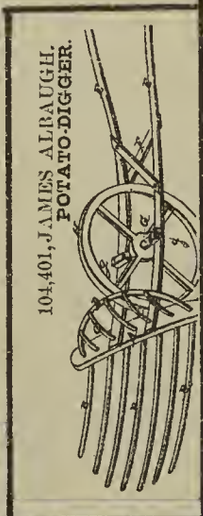

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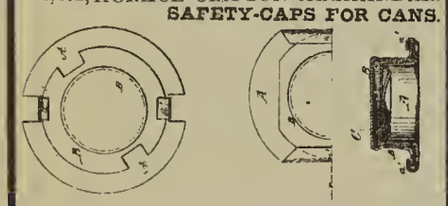

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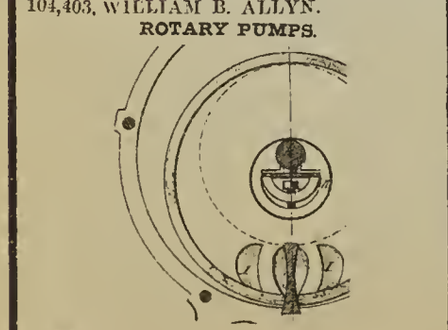
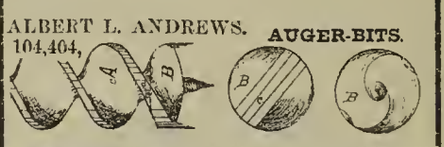
ROTARY PUMPS.

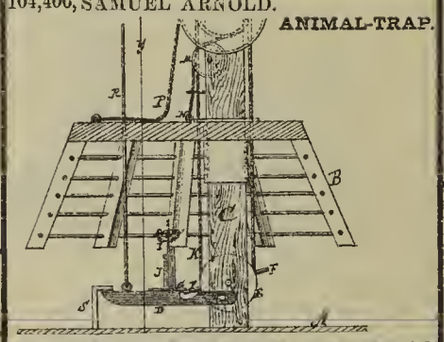


ALBERT L. ANDREWS. 104,404,
AUGER-BITS.



ISAIAH H. AREY. 104,405,
VIOLIN-HOLDER.

104,406, SAMUEL ARNOLD.
ANIMAL-TRAP.



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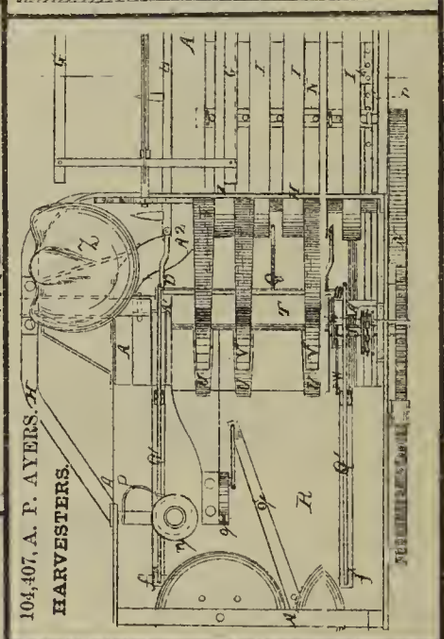
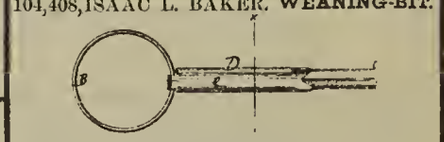


104,408, ISAAC L. BAKER. **WEANING-BIT.**



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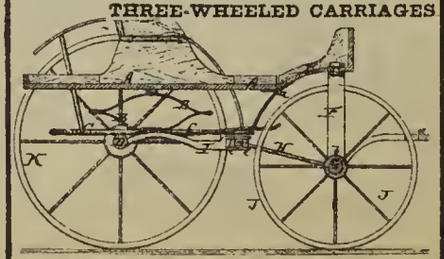
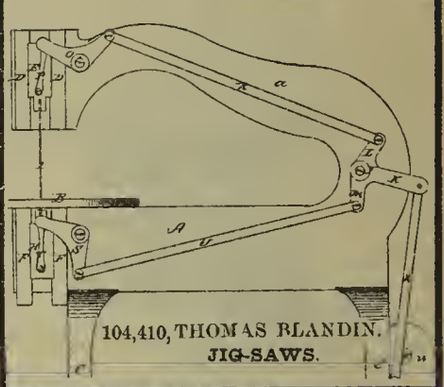
THREE-WHEELED CARRIAGES





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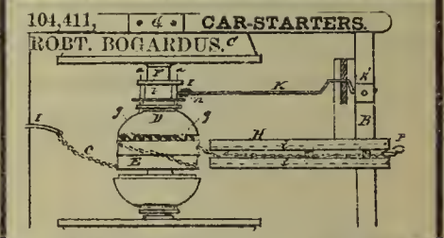
JIG-SAWS.

104,411, ROBT. BOGARDUS.
CAR-STARTERS.



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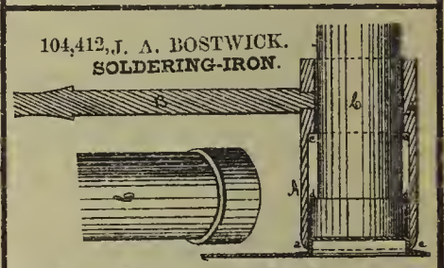
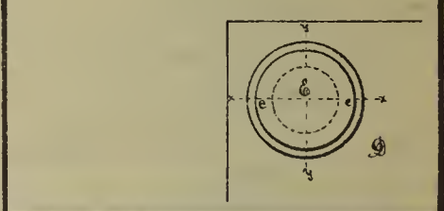
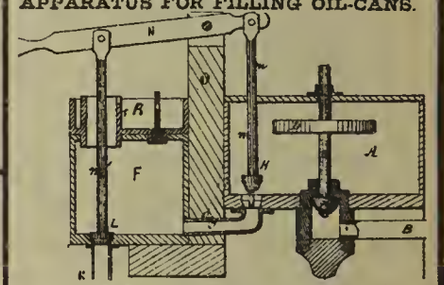
SOLDERING-IRON.

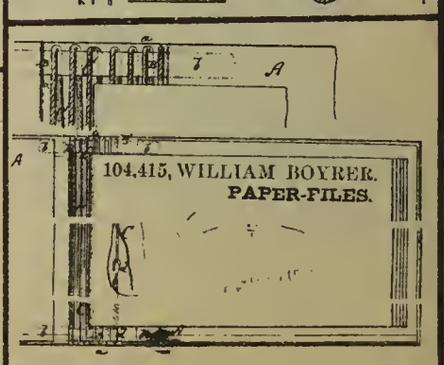


104,413, J. A. BOSTWICK.
NOZZLE AND SEALING-CAP FOR SHEET-METAL CANS.



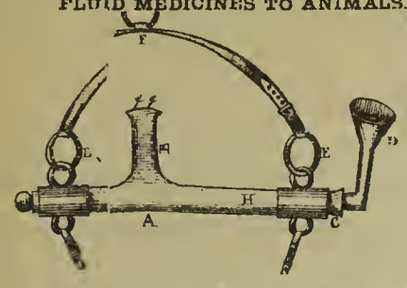
104,414, J. A. BOSTWICK.
APPARATUS FOR FILLING OIL-CANS.



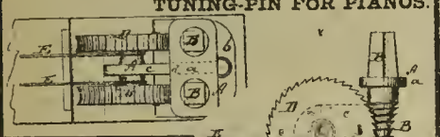


104,415, WILLIAM BOYRER.
PAPER-FILES.

104,416, H. A. BRANDES.
INSTRUMENTS FOR GIVING FLUID MEDICINES TO ANIMALS.

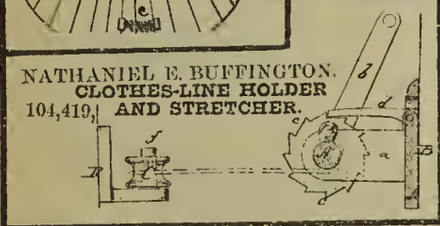


104,417, JULIUS M. BRANIG.
TUNING-PIN FOR PIANOS.

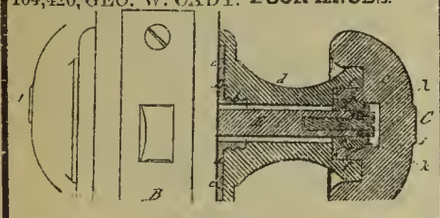


104,418, STERNE BRUNSON.
TREE-PROTECTOR.

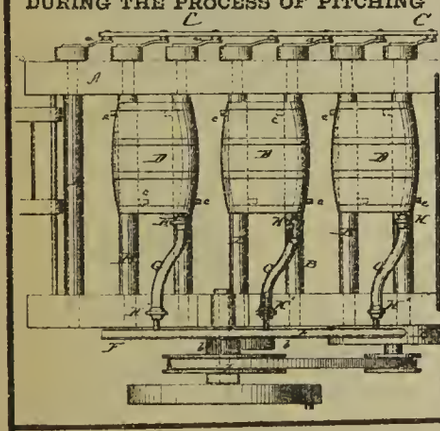
NATHANIEL E. BUFFINGTON.
CLOTHES-LINE HOLDER AND STRETCHER.
104,419,



104,420, GEO. W. CADY. DOOR-KNOBS.

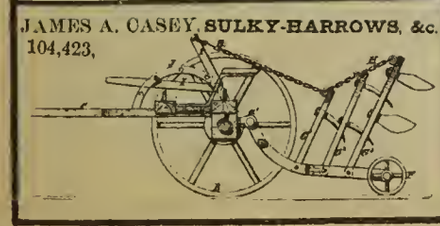


104,421, DAVID CAMMERER.
APPARATUS FOR AGITATING AND COOLING BARRELS AND CASKS DURING THE PROCESS OF PITCHING

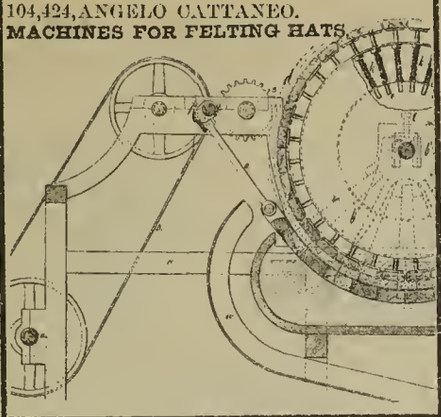


104,422, JOHN J. CARROLL.
DEVICE FOR ROASTING AND BAKING.

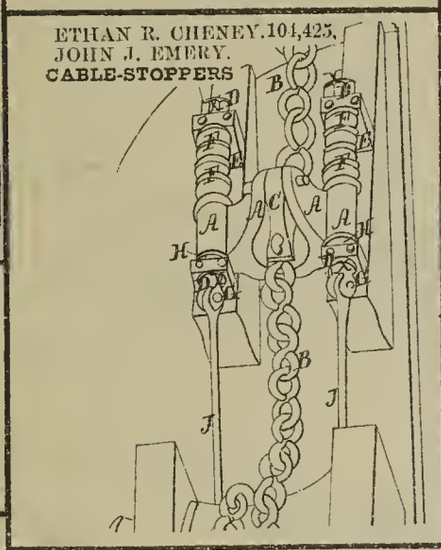
JAMES A. CASEY, SULKY-HARROWS, &c.
104,423,



104,424, ANGELO CATTANEO.
MACHINES FOR FELTING HATS.

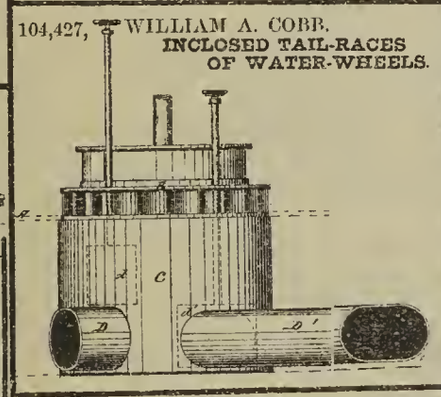


ETHAN R. CHENEY, 104,425,
JOHN J. EMERY.
CABLE-STOPPERS

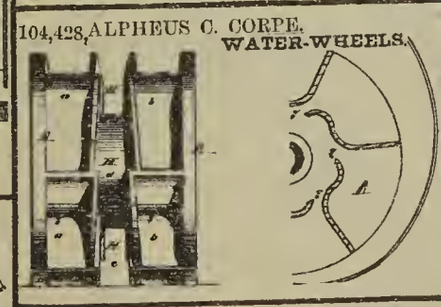


104,426, EDW. B. CLARK. PIPE-TONGS.

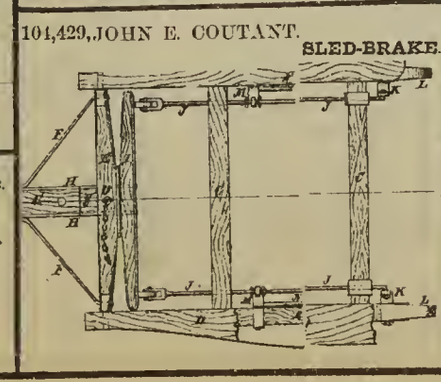
104,427, WILLIAM A. COBB.
INCLOSED TAIL-RACES OF WATER-WHEELS.



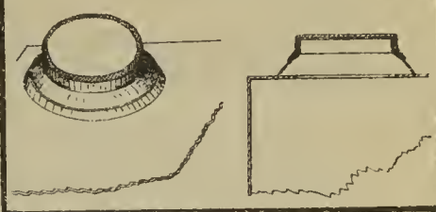
104,428, ALPHEUS C. CORPE.
WATER-WHEELS.



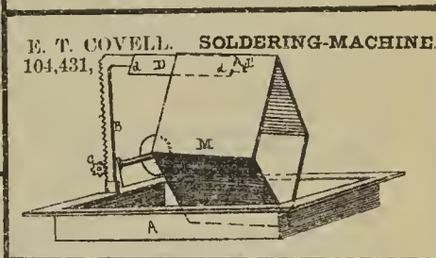
104,429, JOHN E. COUTANT.
SLED-BRAKE.



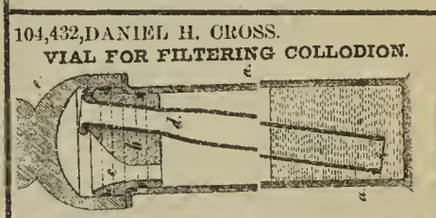
104,430, E. T. COVELL. NOZZLE AND CAP FOR OIL-CANS.



E. T. COVELL. SOLDERING-MACHINE.
104,431,

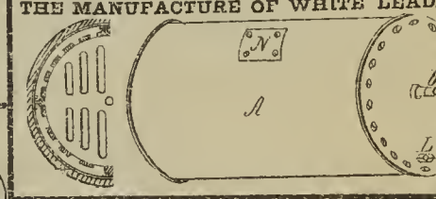


104,432, DANIEL H. CROSS.
VIAL FOR FILTERING COLLODION.

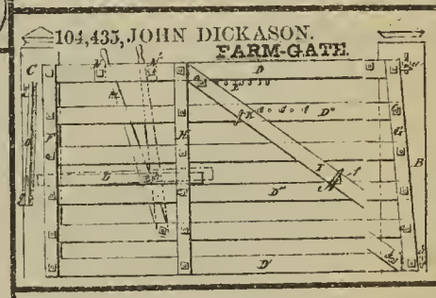


104,433, VELENUS W. CROWSEN.
METHOD OF COVERING WHIPS.

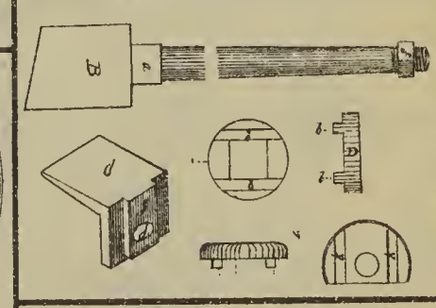
104,434, JAMES CUDDY.
GEO. S. SELDEN
THE MANUFACTURE OF WHITE LEAD.



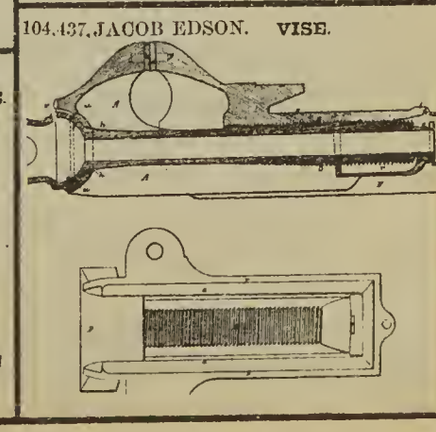
104,435, JOHN DICKASON.
FARM-GATE.



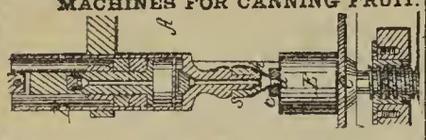
104,436, CHARLES T. DURHAM.
JAMES WOOD.
THEODORE HAIR.
GAUGE-KNIFE FOR CUTTING LEATHER.



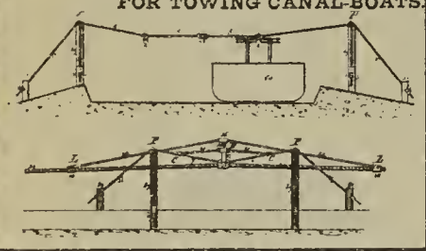
104,437, JACOB EDSON. VISE.



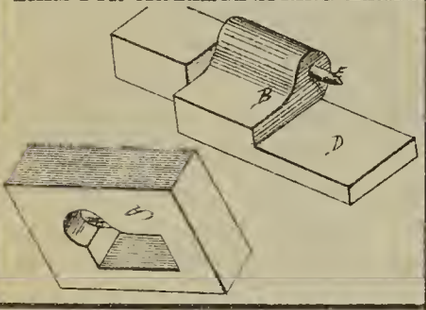
104,438. JOHN H. ELLIS.
MACHINES FOR CANNING FRUIT.



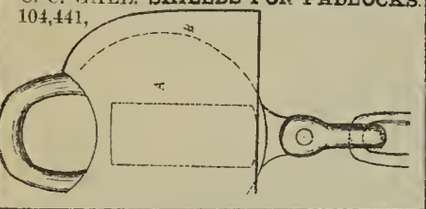
104,439. A. H. EMERY.
GABRIEL LEVERICH. APPARATUS FOR TOWING CANAL-BOATS.



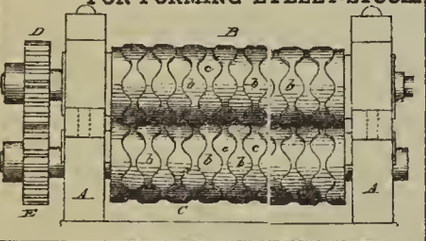
104,440. JOHN EVANS. DIE FOR FORGING EARS FOR CARRIAGE-SPRING HEADS.



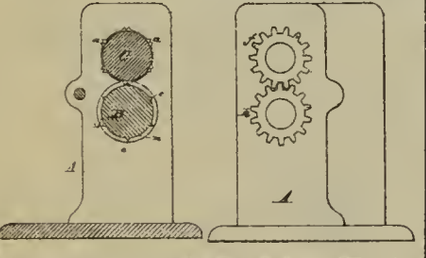
C. C. GALE. SHIELDS FOR PADLOCKS.
104,441.



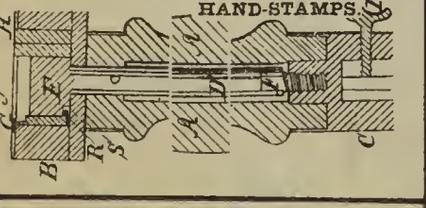
104,442. THOMAS GARRICK. MACHINE FOR FORMING EYELET-STOCK.



104,443. THOMAS GARRICK.
MACHINE FOR FEEDING STOCK TO EYELET-MACHINES.



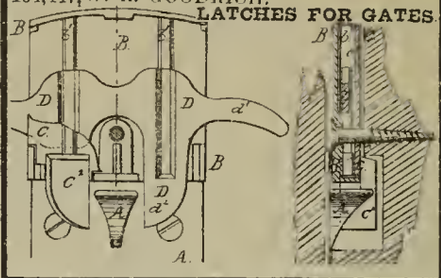
104,444. JEREMIAH C. GASTON.
HAND-STAMPS.



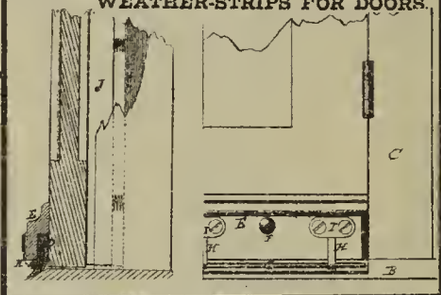
104,445. A. W. GATES. CARD-CLOTHING.

104,446. OTTO GAVRON.
THE PREPARATION OF MINERAL BATH TO IMITATE MINERAL WATERS.

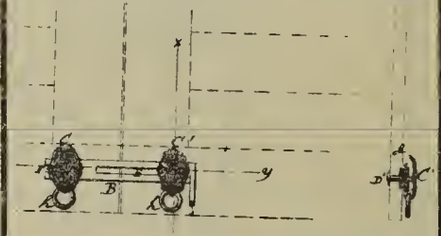
104,447. W. R. GOODRICH.
LATCHES FOR GATES.



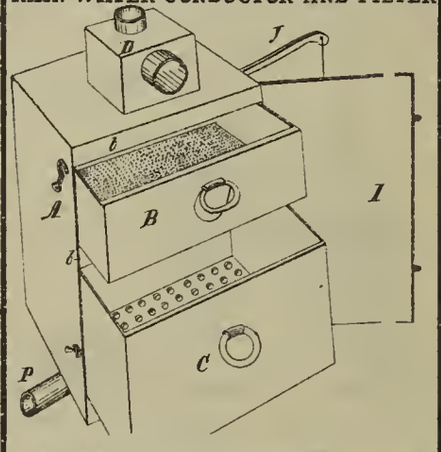
104,448. JEROME M. GRAY.
WEATHER-STRIPS FOR DOORS.



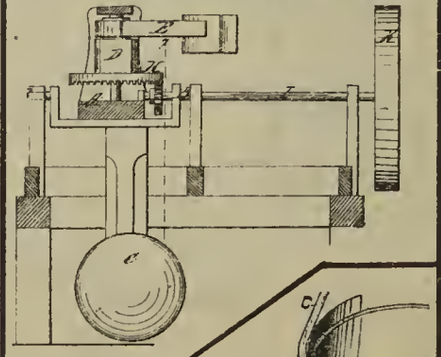
104,449. GEORGE B. GREEN.
BOLTS FOR DOORS AND SHUTTERS.



104,450. JAMES C. HALL.
RAIN-WATER CONDUCTOR AND FILTER.

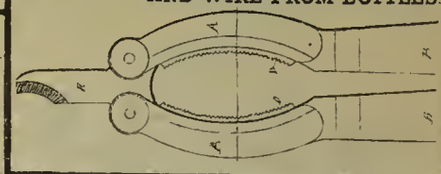


104,451. WILLIAM HAMMILL.
MECHANICAL MOVEMENT.

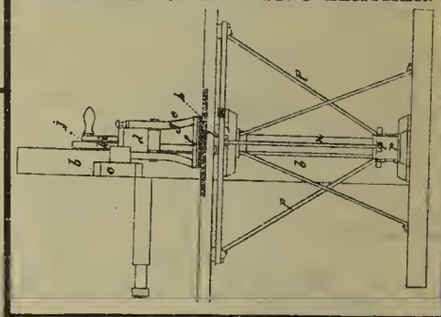


104,452. G. W. HAVILAND.
MILKING-STOOLS.

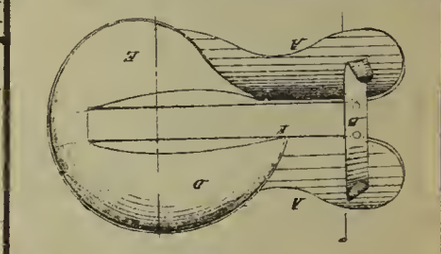
104,453. JOHN T. HAVILAND.
INSTRUMENT FOR REMOVING TWINE AND WIRE FROM BOTTLES.



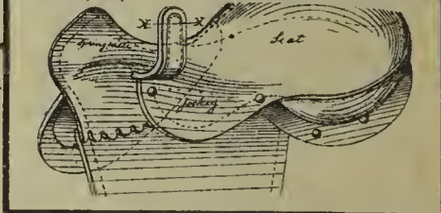
104,454. JOSEPH WARSON HILDRETH.
MACHINE FOR BOARDING LEATHER.



104,455. WILLIAM HILL.
SIDE-SADDLE TREE.

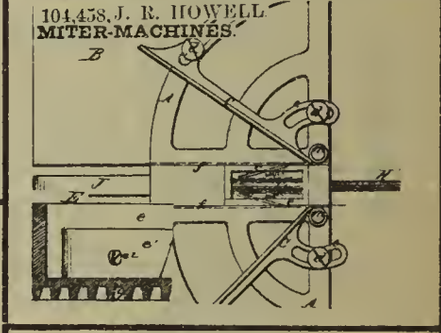


104,456. WILLIAM HILL. SIDE-SADDLE.

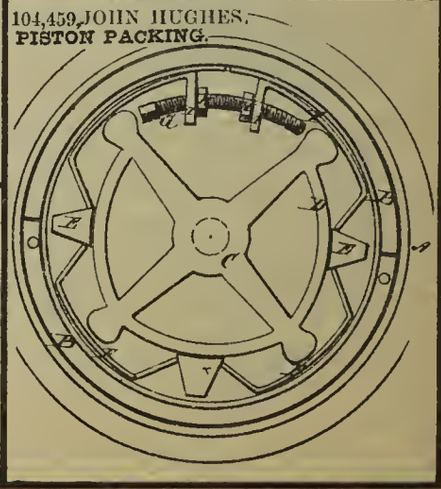


104,457. RICHARD H. HOPKINS. AUGER.

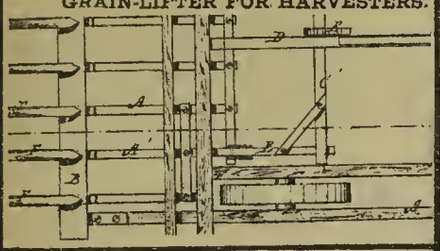
104,458. J. R. HOWELL.
MITER-MACHINES.



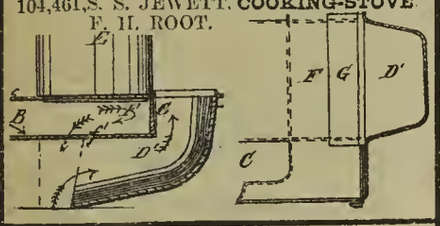
104,459. JOHN HUGHES.
PISTON PACKING.



104,460, WM. M. JACKSON. GRAIN-LIFTER FOR HARVESTERS.

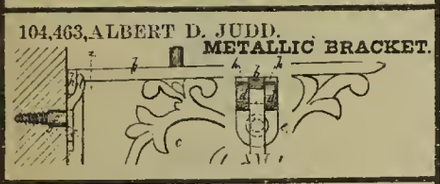


104,461, S. S. JEWETT. COOKING-STOVE. F. H. ROOT.



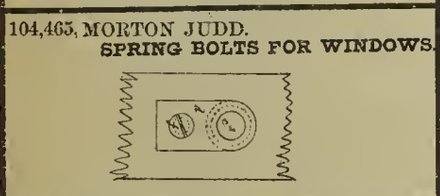
104,462, WILLIAM J. JOHNSON. CAR-COUPLINGS.

104,463, ALBERT D. JUDD. METALLIC BRACKET.

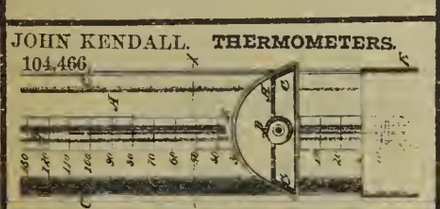


104,464, ALBERT D. JUDD. E. M. JUDD. METALLIC BRACKET.

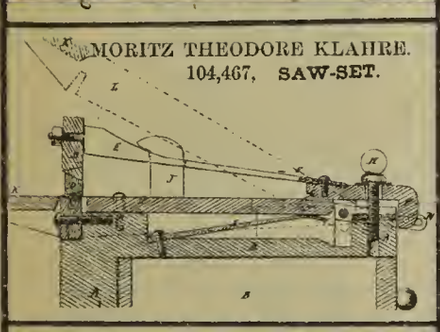
104,465, MORTON JUDD. SPRING BOLTS FOR WINDOWS.



JOHN KENDALL. THERMOMETERS. 104,466

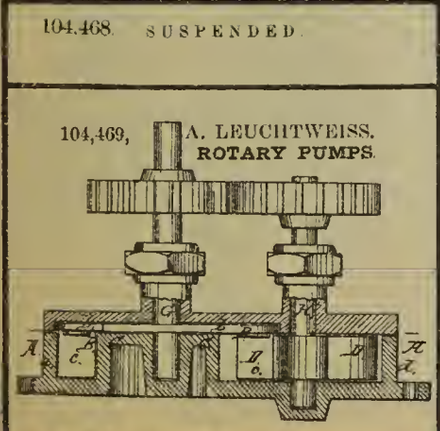


MORITZ THEODORE KLAHRE. 104,467, SAW-SET.



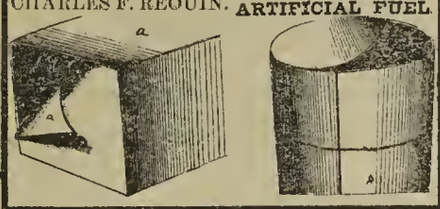
104,468. SUSPENDED.

104,469, A. LEUCHTWEISS. ROTARY PUMPS.

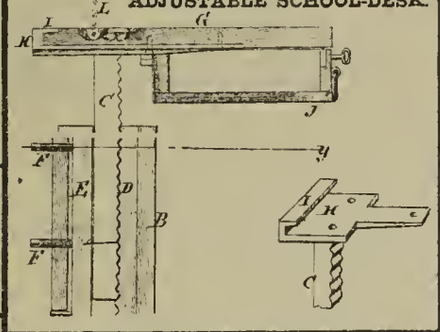


104,470, OSCAR LOEW. BLEACHING DARK SOAPS AND "FOOTS."

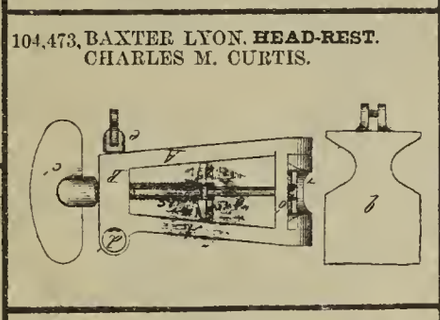
EMILE F. LOISEAU. 104,471. CHARLES F. REQUIN. ARTIFICIAL FUEL.



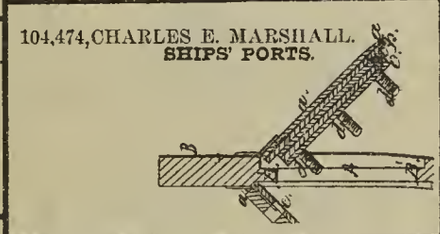
104,472, CHARLES H. LOOMIS. ADJUSTABLE SCHOOL-DESK.



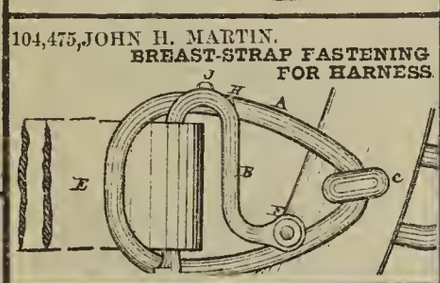
104,473, BAXTER LYON. HEAD-REST. CHARLES M. CURTIS.



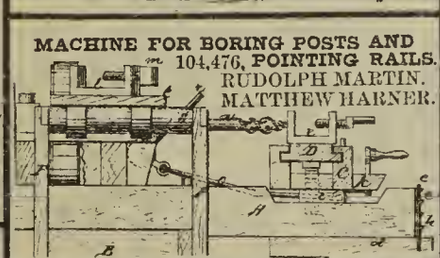
104,474, CHARLES E. MARSHALL. SHIPS' PORTS.



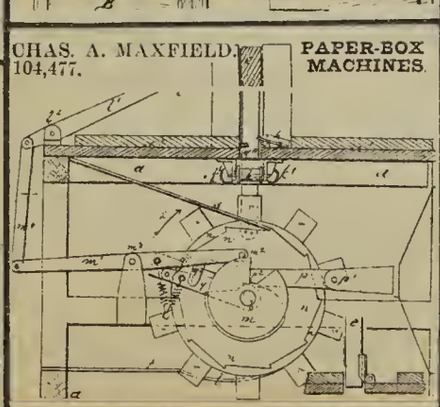
104,475, JOHN H. MARTIN. BREAST-STRAP FASTENING FOR HARNESS.



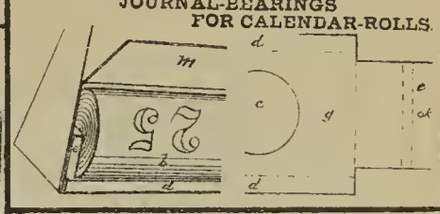
MACHINE FOR BORING POSTS AND 104,476, POINTING RAILS. RUDOLPH MARTIN. MATTHEW HARNER.



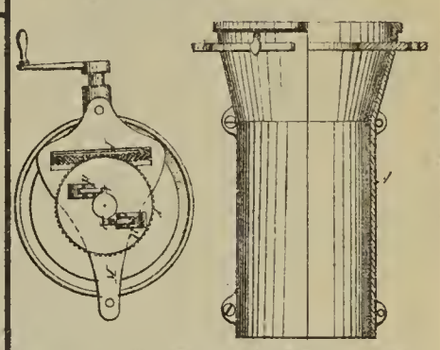
CHAS. A. MAXFIELD. 104,477. PAPER-BOX MACHINES.



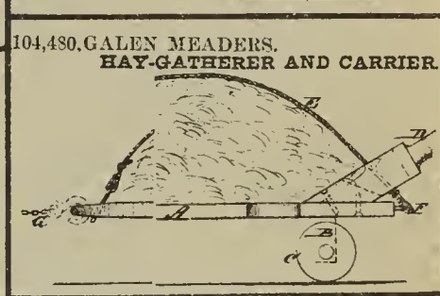
104,478, WILLIAM McADAMS. JOURNAL-BEARINGS FOR CALENDAR-ROLLS.



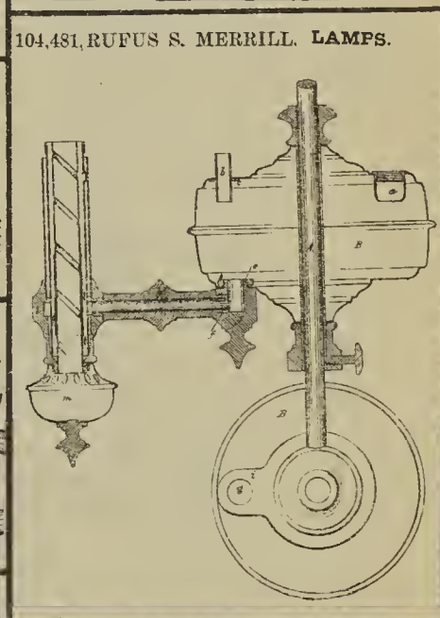
104,479, JOHN McCLELLAND. DEVICE FOR MOLDING AND CASTING PIPE.



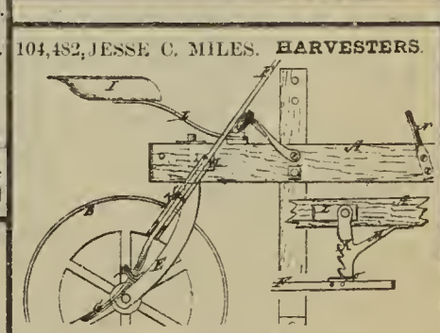
104,480, GALEN MEADERS. HAY-GATHERER AND CARRIER.



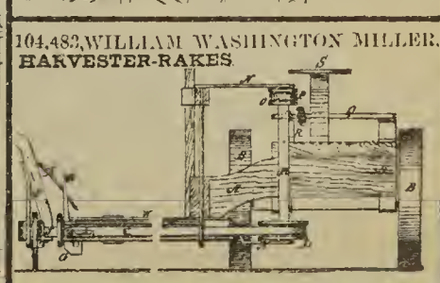
104,481, RUFUS S. MERRILL. LAMPS.



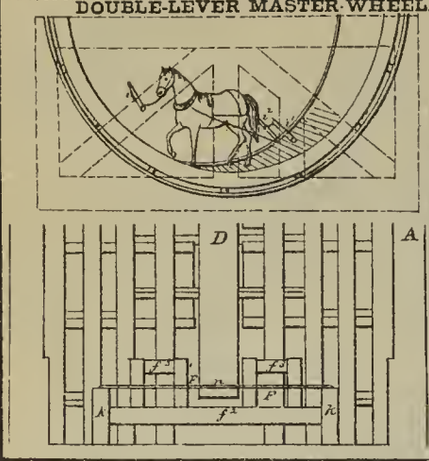
104,482, JESSE C. MILES. HARVESTERS.



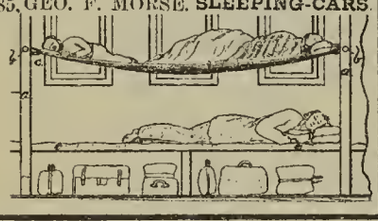
104,483, WILLIAM WASHINGTON MILLER. HARVESTER-RAKES.



104,484, D. E. MITCHELL.
DOUBLE-LEVER MASTER-WHEEL.

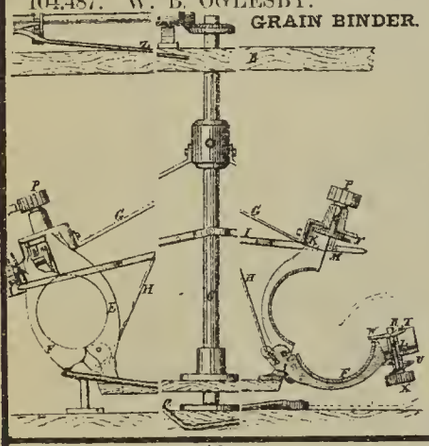


104,485, GEO. F. MORSE. SLEEPING-CARS.



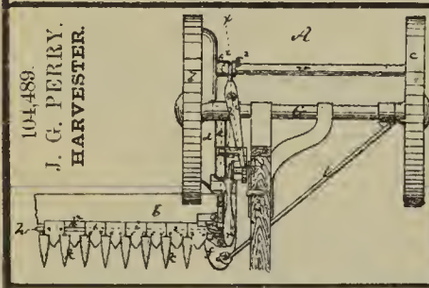
104,486, MICHAEL O. MURPHY.
VENTILATING-WINDOW FOR RAILROAD-CARS.

104,487. W. B. OGLESBY.
GRAIN BINDER.

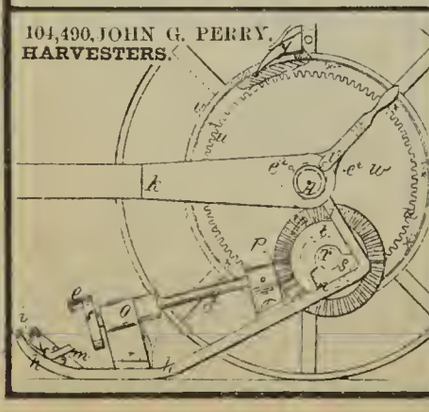


JOEL A. OTIS.
104,488,
PAIL-EARS.

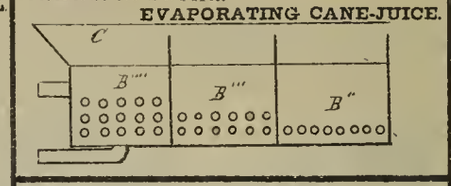
104,489.
J. G. PERRY.
HARVESTER.



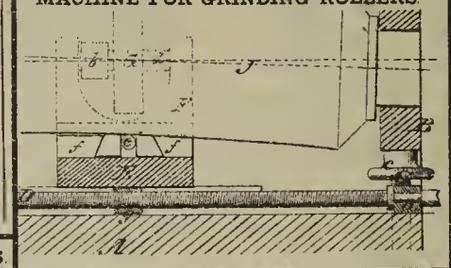
104,490, JOHN G. PERRY.
HARVESTERS.



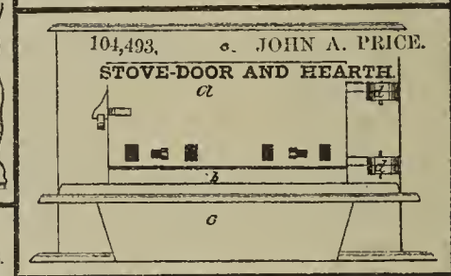
104,491, S. A. POCHE.
EVAPORATING CANE-JUICE.



104,492, J. MORTON POOLE.
MACHINE FOR GRINDING ROLLERS.

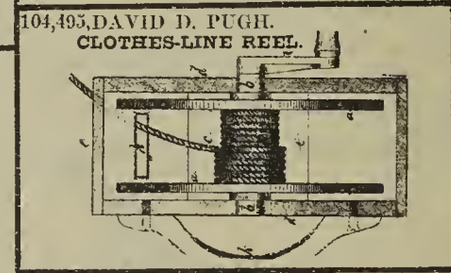


104,493, JOHN A. PRICE.
STOVE-DOOR AND HEARTH.

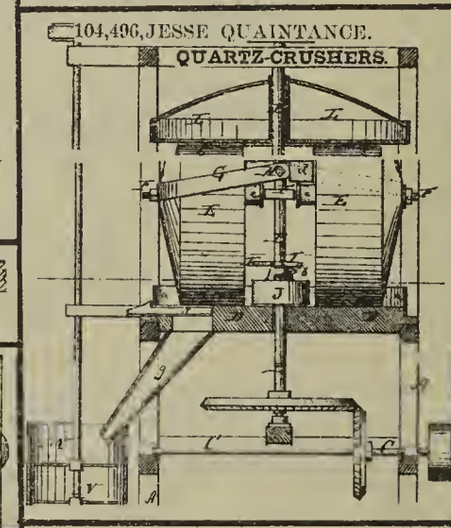


104,494, CHRISTOPHER T. PROVOST.
CONCENTRATING THE JUICE OF TOMATOES.

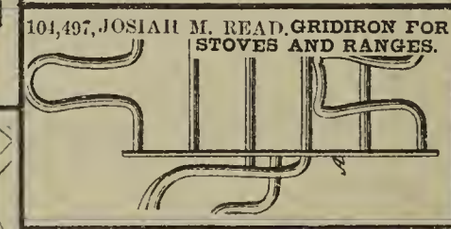
104,495, DAVID D. PUGH.
CLOTHES-LINE REEL.



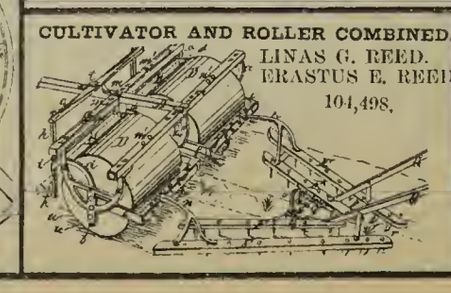
104,496, JESSE QUAINTANCE.
QUARTZ-CRUSHERS.



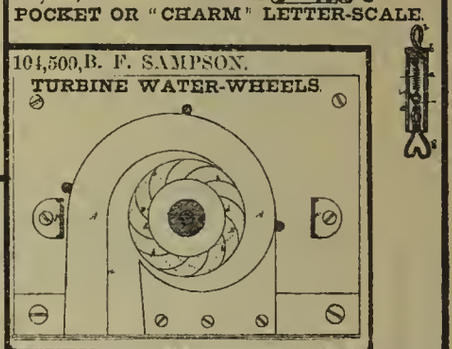
104,497, JOSIAH M. READ. GRIDIRON FOR STOVES AND RANGES.



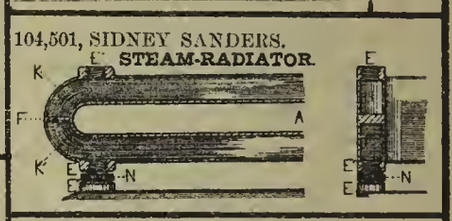
CULTIVATOR AND ROLLER COMBINED.
LINAS G. REED.
ERASTUS E. REED
104,498.



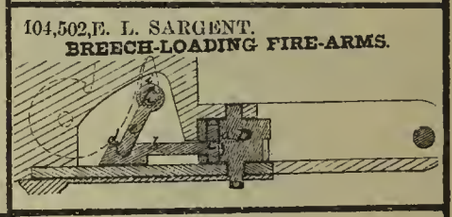
104,499, GEO. S. RICE.
POCKET OR "CHARM" LETTER-SCALE.



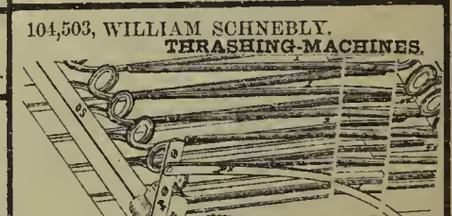
104,500, B. F. SAMPSON.
TURBINE WATER-WHEELS.



104,501, SIDNEY SANDERS.
STEAM-RADIATOR.

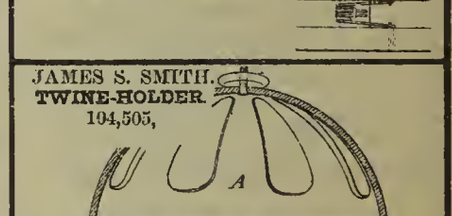


104,502, E. L. SARGENT.
BREECH-LOADING FIRE-ARMS.

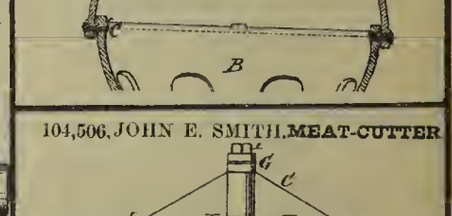


104,503, WILLIAM SCHNEBLY.
THRASHING-MACHINES.

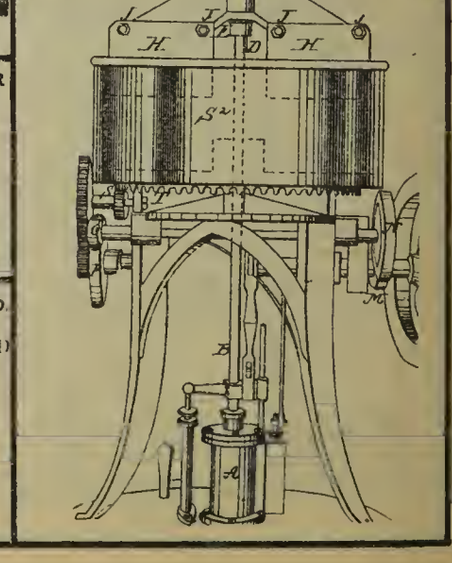
104,504, DAVID A. SCOTT.
SPRING BED-BOTTOM.



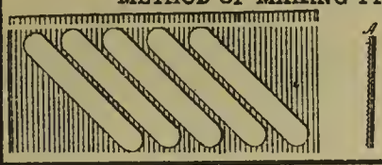
JAMES S. SMITH.
TWINE-HOLDER.
104,505,



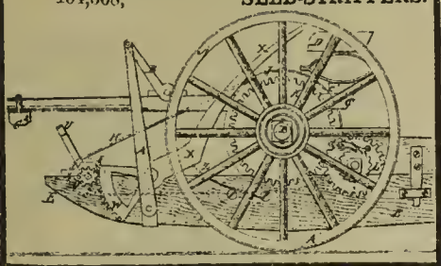
104,506, JOHN E. SMITH. MEAT-CUTTER



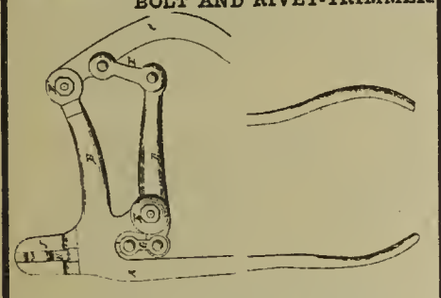
104,507, THOMAS S. SMITH.
METHOD OF MAKING FILES.



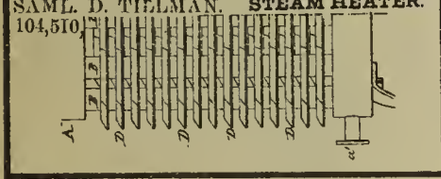
MAJOR JOSEPH W. STIVERS.
104,508, **SEED-STRIPPERS.**



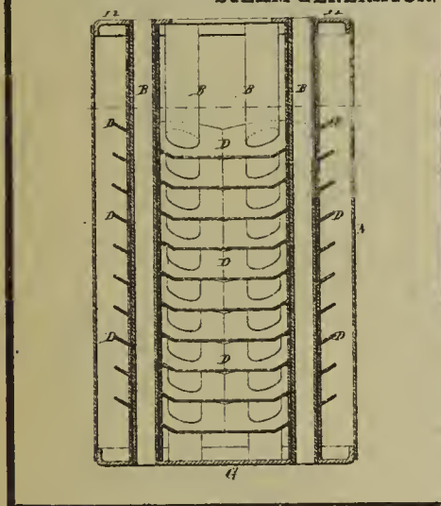
104,509, MATHIAS THEISEN.
BOLT AND RIVET-TRIMMER.



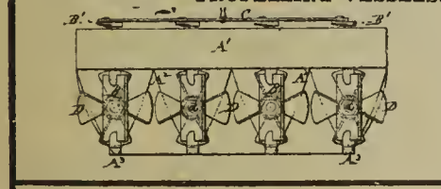
SAML. D. TILLMAN. **STEAM HEATER.**
104,510,



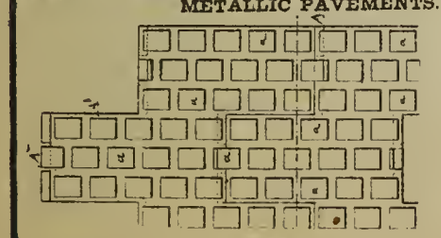
104,511, SAML. D. TILLMAN.
STEAM-GENERATOR.



104,512, SAML. D. TILLMAN.
PROPELLING VESSELS.

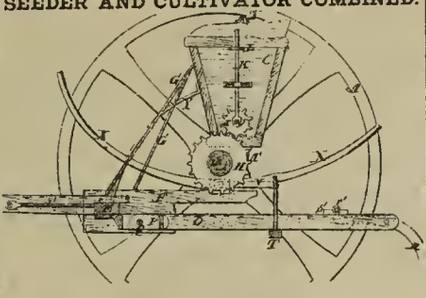


104,513, SAML. D. TILLMAN.
METALLIC PAVEMENTS.

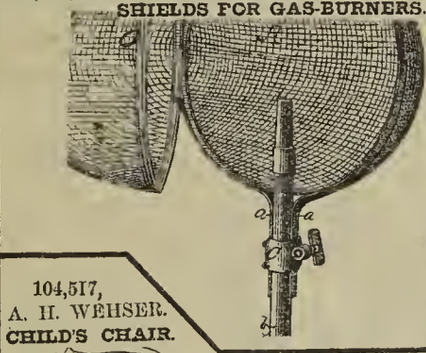


104,514, WM. H. TOWERS.
COMPOSITION ROLLS FOR CLOTHES-WRINGERS.

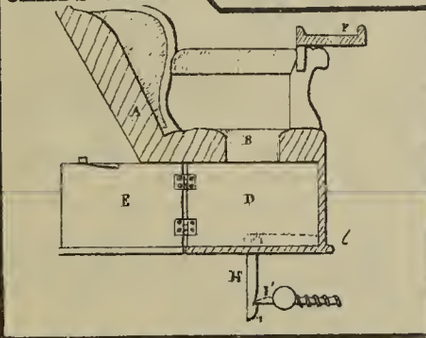
104,515, JAMES T. TROWBRIDGE.
SEEDER AND CULTIVATOR COMBINED.



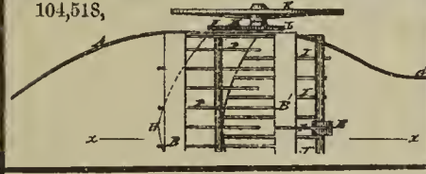
104,516, HIRAM J. WATTLES.
SHIELDS FOR GAS-BURNERS.



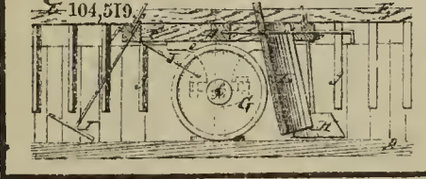
104,517,
A. H. WEHSER.
CHILD'S CHAIR.



D. B. WESTFALL. **POTATO-DIGGERS.**
104,518,

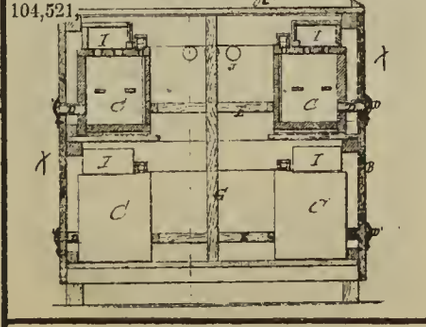


SETH WETMORE. **MORTAR-MIXERS.**
104,519,

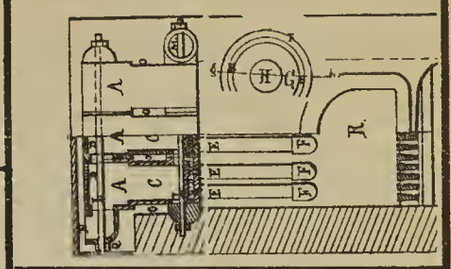


104,520, NELSON S. WHIPPLE.
GLUE OR CEMENT.

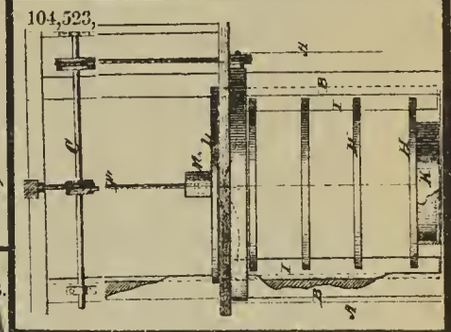
NATHANIEL F. WHITE. **BEE-HIVES.**
104,521,



104,522, S. LLOYD WIEGAND.
STEAM-GENERATOR

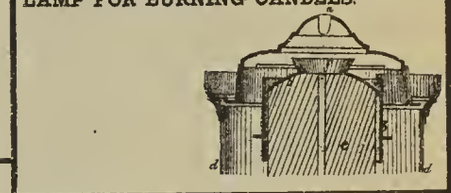


104,523,

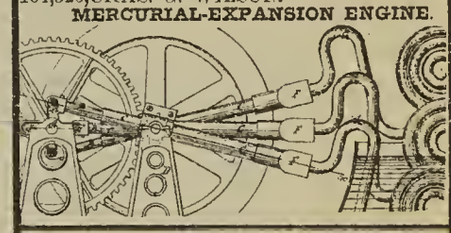


104,524, RICHD. S. WILLIAMS.
PREPARING GOLD FOR DENTISTS' USE.

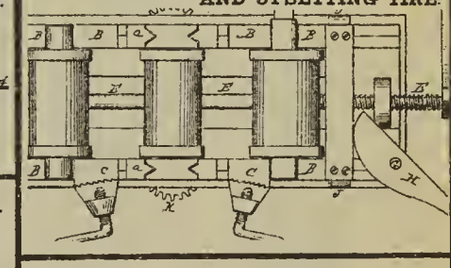
104,525, THOMAS SCOTT WILLIAMS.
FREEMAN AUGUSTUS TABER.
LAMP FOR BURNING CANDLES.



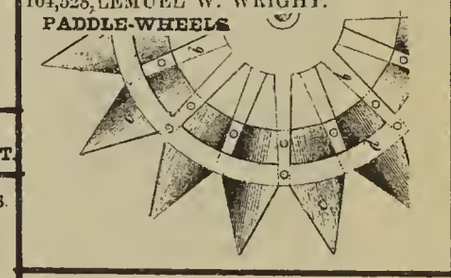
104,526, CHAS. G. WILSON.
MERCURIAL-EXPANSION ENGINE.

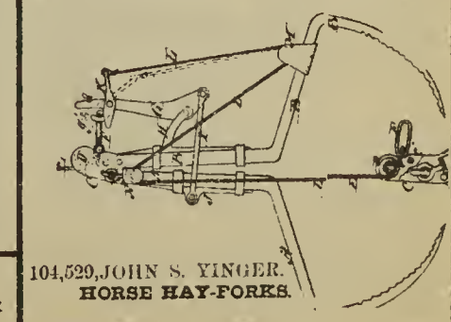


104,527, JNO. T. WOODWARD.
APPARATUS FOR BENDING AND UPSETTING TIRE.



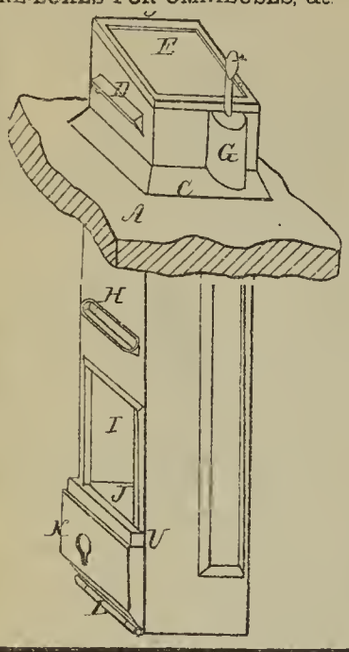
104,528, LEMUEL W. WRIGHT.
PADDLE-WHEELS.

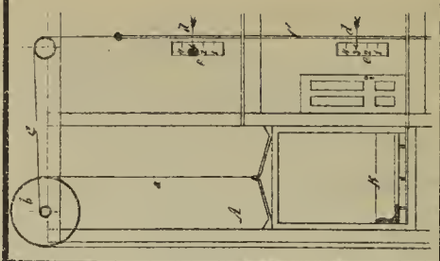




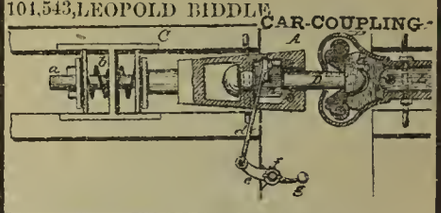
104,529, JOHN S. YINGER.
HORSE HAY-FORKS.

104,530, W. H. YOUNG.
FARE-BOXES FOR OMNIBUSES, &c.

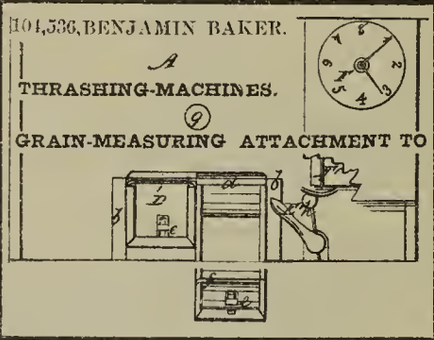




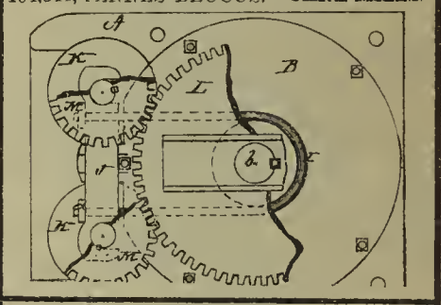
104,543, LEOPOLD BIDDLE.
CAR-COUPLING.



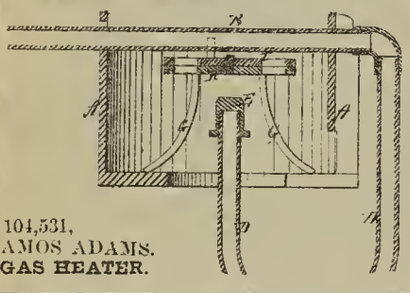
104,536, BENJAMIN BAKER.
A
THRASHING-MACHINES.
Q
GRAIN-MEASURING ATTACHMENT TO



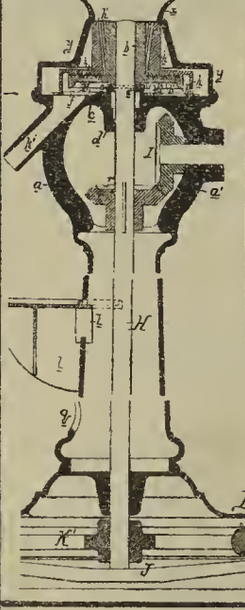
ABRAHAM BEUCUS.
104,544, TENNES BEUCUS. CANE-MILLS.



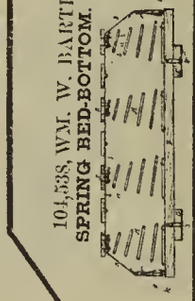
104,531,
AMOS ADAMS.
GAS HEATER.



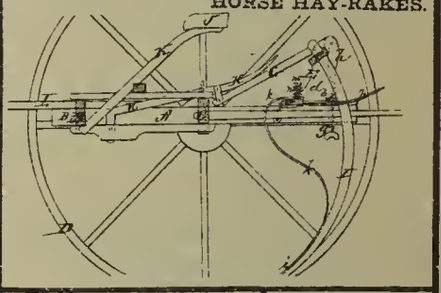
104,537, JOHN GULICK BAKER.
GRINDING-MILLS.



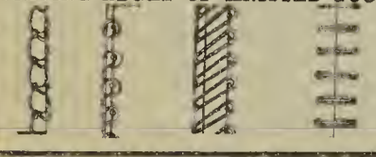
104,538, WM. W. BARTLETT.
SPRING BED-BOTTOM.



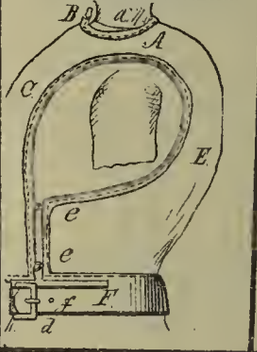
104,545, LEWIS S. BORTREE.
HORSE HAY-RAKES.



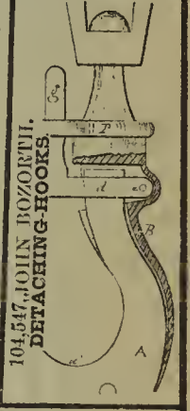
104,532, SATTERLEE ARNOLD. MODE OF UNITING EDGES OF KNITTED GOODS.



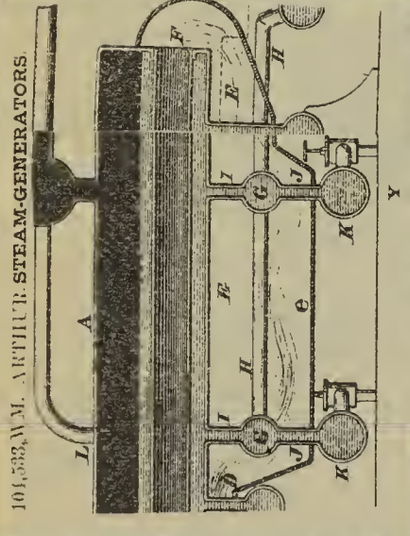
104,546, THOS. B. BOYD.
LIFE-PRESERVERS.



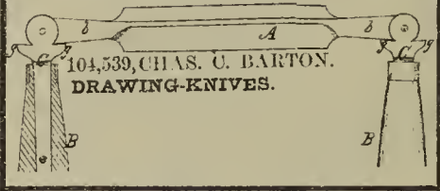
104,547, JOHN BOZORTH.
DETACHING-HOOKS.



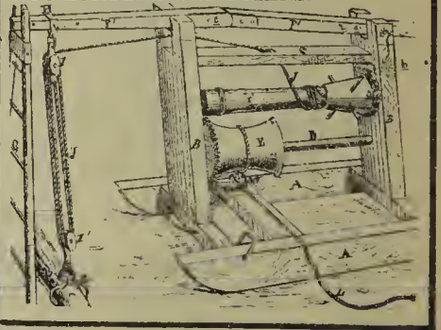
104,533, WM. ARTHUR. STEAM-GENERATORS.



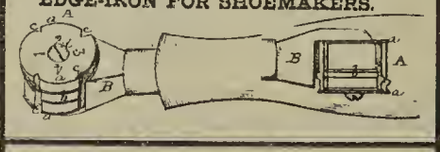
104,539, CHAS. C. BARTON.
DRAWING-KNIVES.



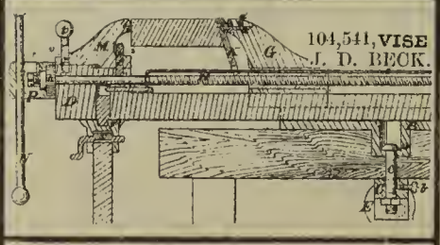
104,548, JAMES G. BRADY.
LOG-LOADERS AND PILERS.



104,540, EMANUEL D. BEALES.
EDGE-IRON FOR SHOEMAKERS.



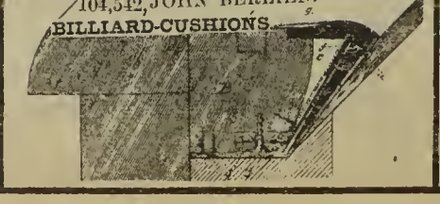
104,541, VISE
J. D. BECK.



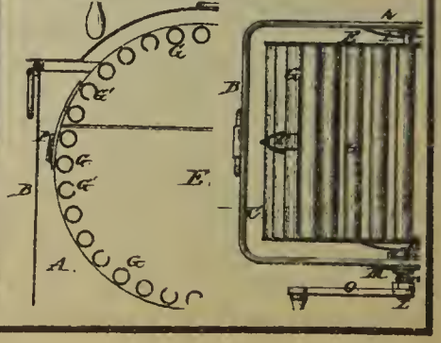
104,549, LEONARD BROCKETT SOAP.

104,534 R. ASHE.
CHANNEL FOR BOOTS AND SHOES.

104,542, JOHN BERLIEN.
BILLIARD-CUSHIONS.

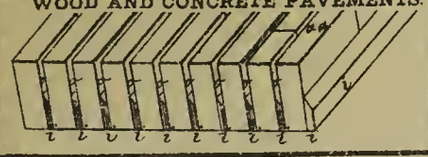


104,550, EDWIN C. BROOKS.
BOILER AND WASHER.

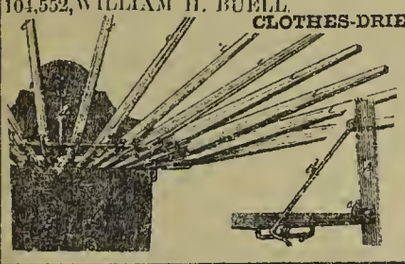


104,535, WM. S. AUCHINCLOSS.
APPARATUS FOR INDICATING THE POSITION OF ELEVATORS.

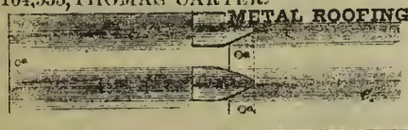
104,551, J. WARREN BROWN. COMBINED WOOD AND CONCRETE PAVEMENTS.



104,552, WILLIAM H. BUELL. CLOTHES-DRIER.

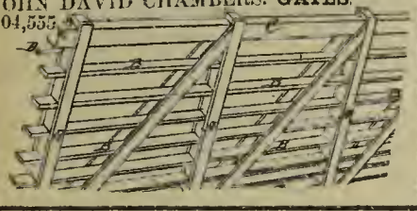


104,553, THOMAS CARTER. METAL ROOFING.

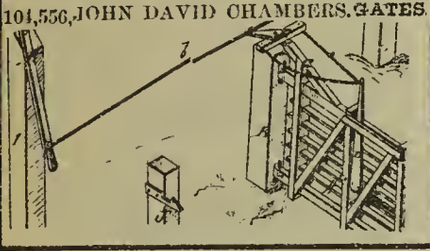


104,554, GEO. W. CASILEAR. PRINTING-INK.

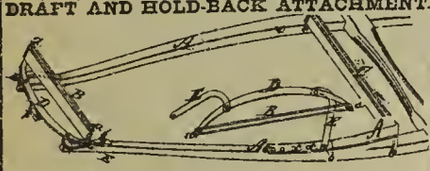
JOHN DAVID CHAMBERS. GATES. 104,555.



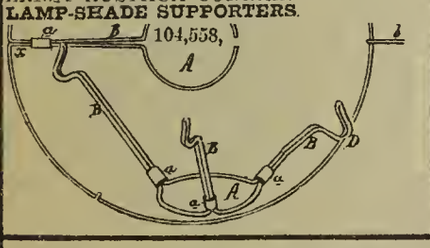
104,556, JOHN DAVID CHAMBERS. GATES.



104,557, WILLIAM H. CHAMBERLIN. DRAFT AND HOLD-BACK ATTACHMENT.

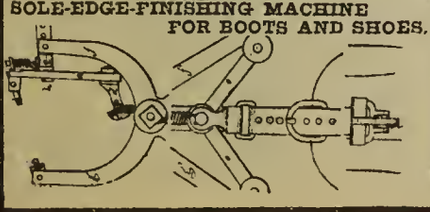


ERNST EUSTACH CONRAD. LAMP-SHADE SUPPORTERS. 104,558.

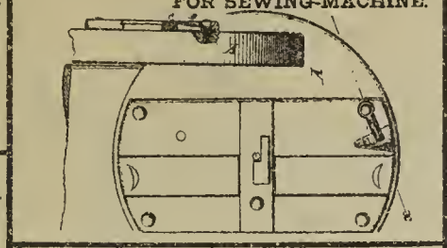


DR. NEWTON C. COOLEY. FRUIT-DRIER. 104,559.

104,560, LOUIS COTE. SOLE-EDGE-FINISHING MACHINE FOR BOOTS AND SHOES.

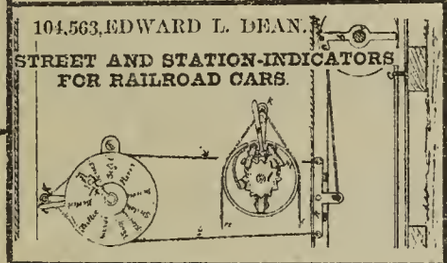


104,561, JOHN CROWE. THREAD-CUTTER FOR SEWING-MACHINE.

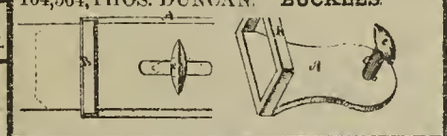


104,562, AUSTIN G. DAY. ASPHALTUM OR CONCRETE PAVEMENTS.

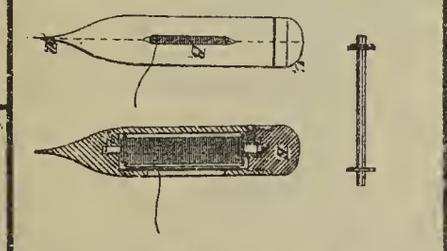
104,563, EDWARD L. DEAN. STREET AND STATION-INDICATORS FOR RAILROAD CARS.



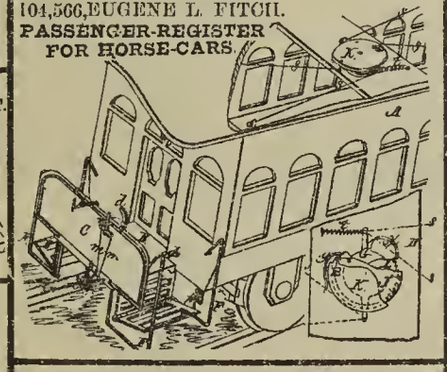
104,564, THOS. DUNCAN. BUCKLES.



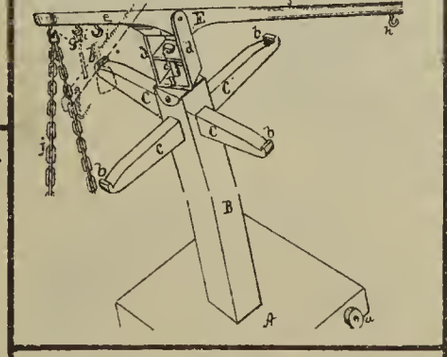
104,565, B. L. FETHEROLF. TATTING-SHUTTLES.



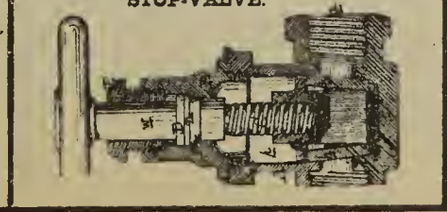
104,566, EUGENE L. FITCH. PASSENGER-REGISTER FOR HORSE-CARS.



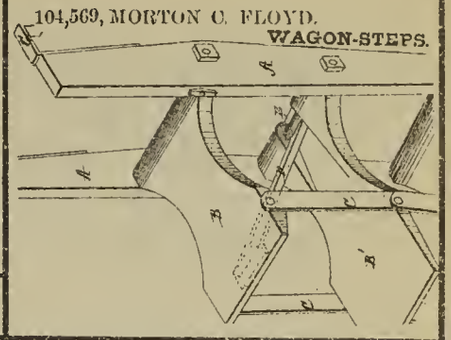
104,567. OLIVER H. FLOOK. HOISTING-APPARATUS.



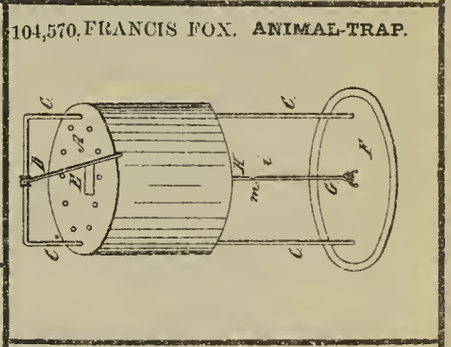
104,568, JAMES FLOWER. STOP-VALVE.

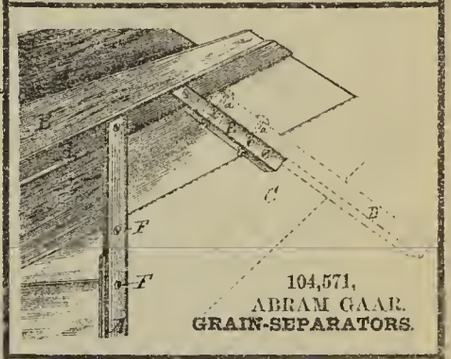


104,569, MORTON C. FLOYD. WAGON-STEPS.



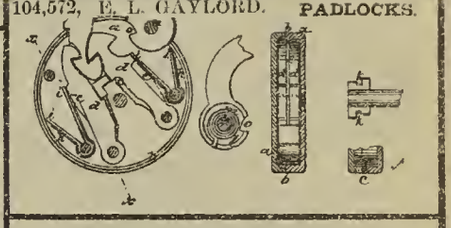
104,570, FRANCIS FOX. ANIMAL-TRAP.



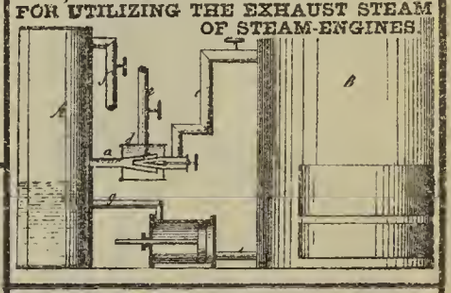


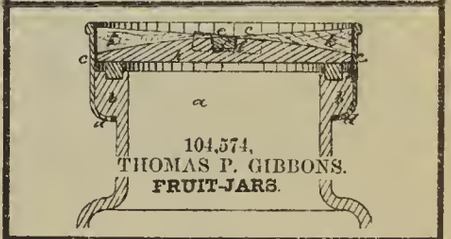
104,571, ABRAM GAAR. GRAIN-SEPARATORS.

104,572, E. L. GAYLORD. PADLOCKS.

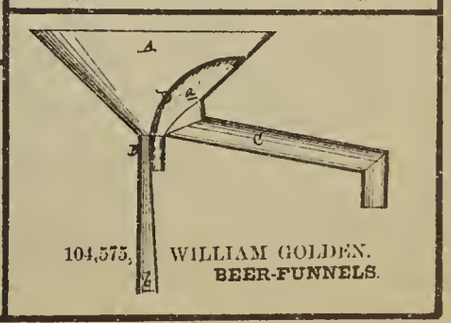


104,573, HENRY GERNER. APPARATUS FOR UTILIZING THE EXHAUST STEAM OF STEAM-ENGINES.



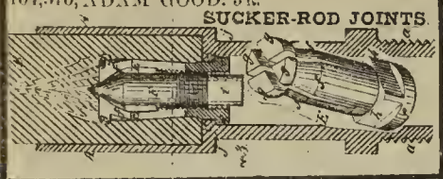


104,574, THOMAS P. GIBBONS. FRUIT-JARS.

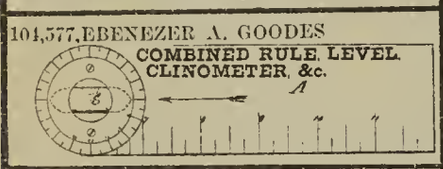


104,575, WILLIAM GOLDEN. BEER-FUNNELS.

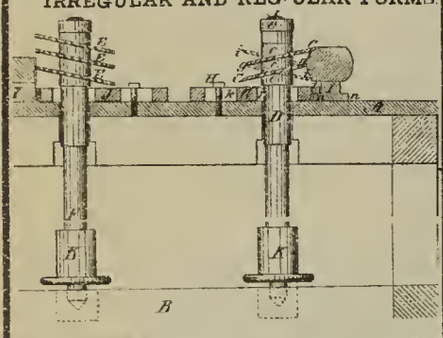
104,576, ADAM GOOD, JR. SUCKER-ROD JOINTS.



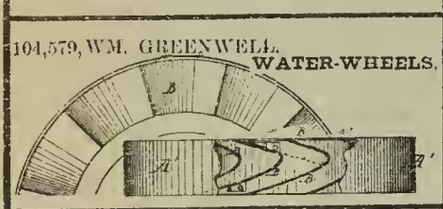
104,577, EBENEZER A. GOODES COMBINED RULE, LEVEL, CLINOMETER, &c.



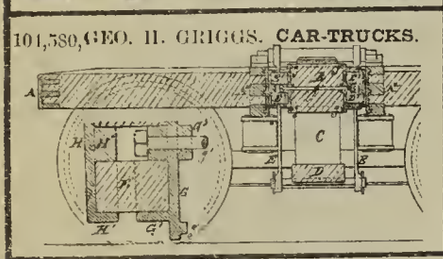
104,578, HENRY A. GORE. MACHINE FOR ROUNDING AND DRESSING IRREGULAR AND REGULAR FORMS.



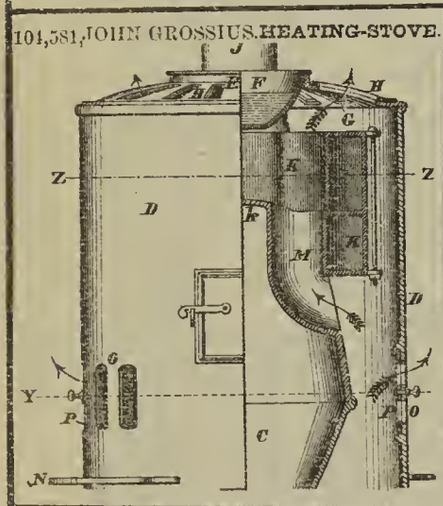
104,579, WM. GREENWELL. WATER-WHEELS.



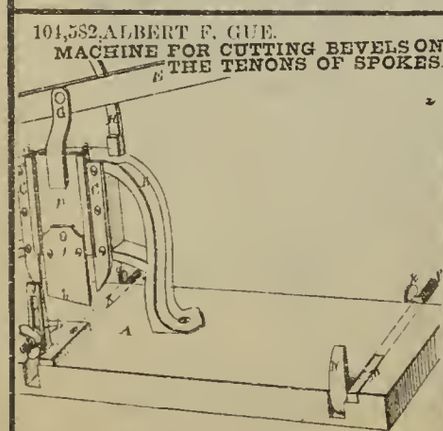
104,580, GEO. H. GRIGGS. CAR-TRUCKS.



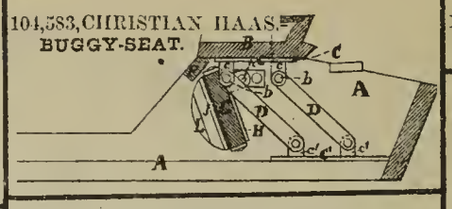
104,581, JOHN GROSSIUS. HEATING-STOVE.



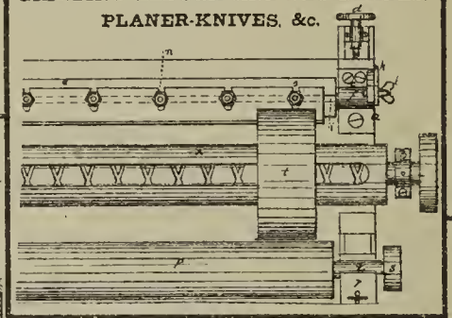
104,582, ALBERT F. GUE. MACHINE FOR CUTTING BEVELS ON THE TENONS OF SPOKES.



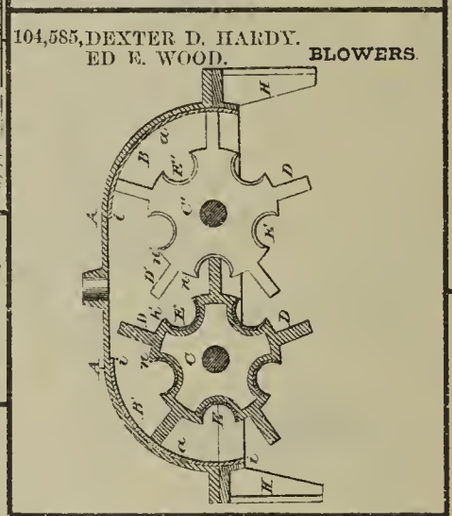
104,583, CHRISTIAN HAAS. BUGGY-SEAT.



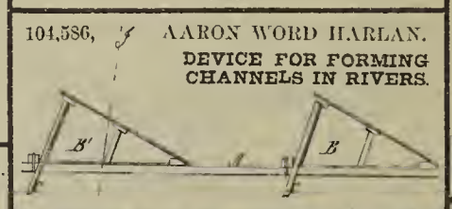
104,584, CHARLES HARDY. GRINDING LEDGER AND FLY-BLADES, PLANER-KNIVES, &c.



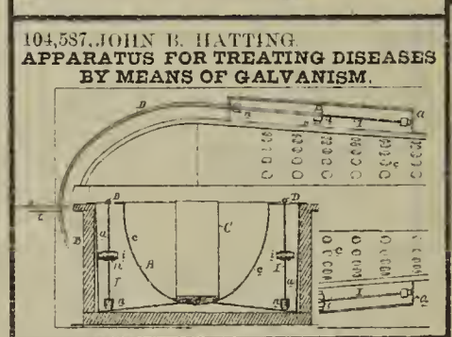
104,585, DEXTER D. HARDY, ED E. WOOD. BLOWERS.



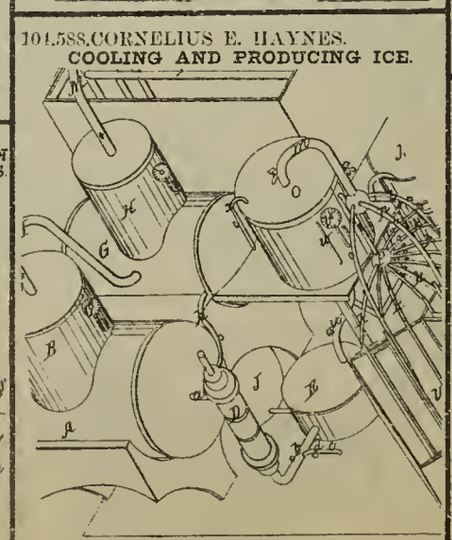
104,586, AARON WORD HARLAN. DEVICE FOR FORMING CHANNELS IN RIVERS.



104,587, JOHN B. HATTING. APPARATUS FOR TREATING DISEASES BY MEANS OF GALVANISM.

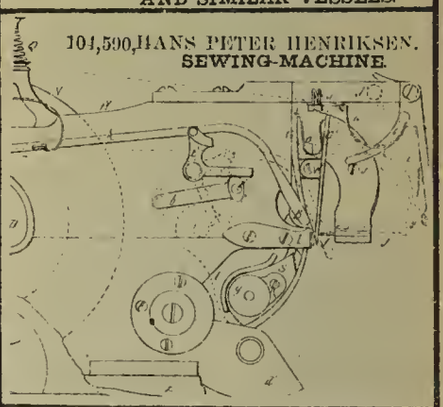


104,588, CORNELIUS E. HAYNES. COOLING AND PRODUCING ICE.

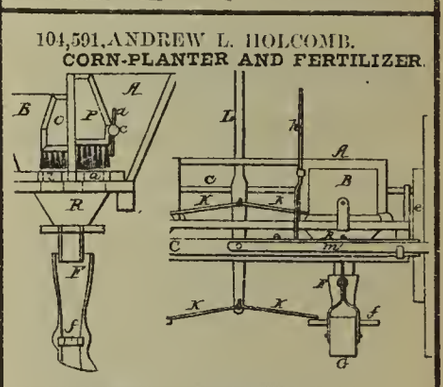


104,589, GEORGE H. HAZELTON. BOTTOMS FOR WASH-BOILERS AND SIMILAR VESSELS.

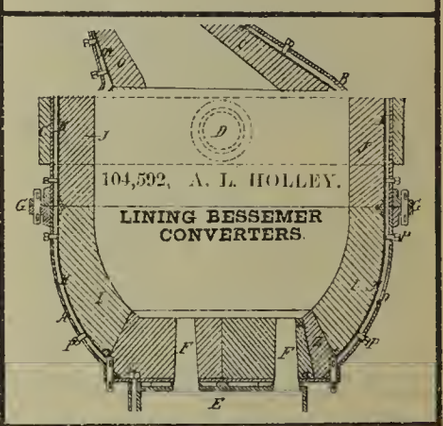
104,590, HANS PETER HENRIKSEN. SEWING-MACHINE.



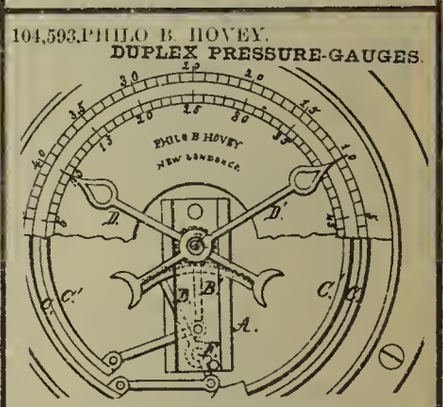
104,591, ANDREW L. HOLCOMB. CORN-PLANTER AND FERTILIZER.



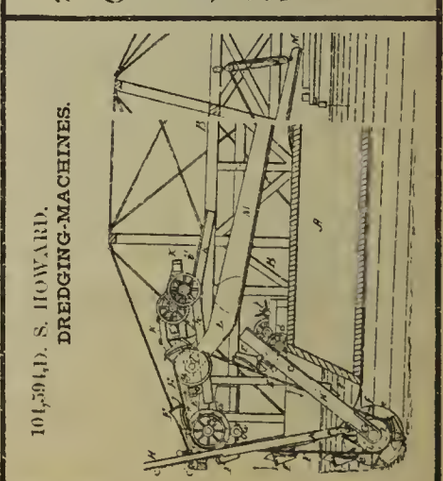
104,592, A. L. HOLLEY. LINING BESSEMER CONVERTERS.



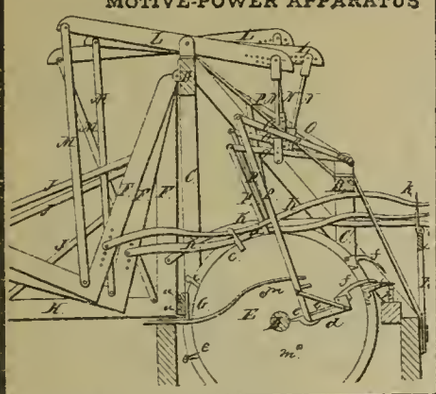
104,593, PHILO B. HOVEY. DUPLEX PRESSURE-GAUGES.



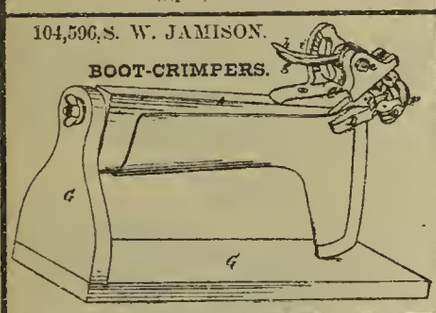
104,594, D. S. HOWARD. DREDGING-MACHINES.



104,595, ABRAM JACKSON. MOTIVE-POWER APPARATUS

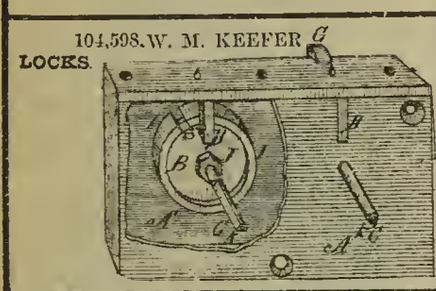


104,596, S. W. JAMISON. BOOT-CRIMPERS.

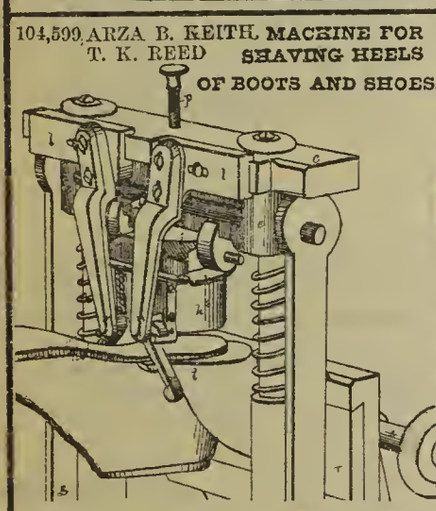


104,597, CARL A. KALCK. CLOTHES-LINE HOLDER.

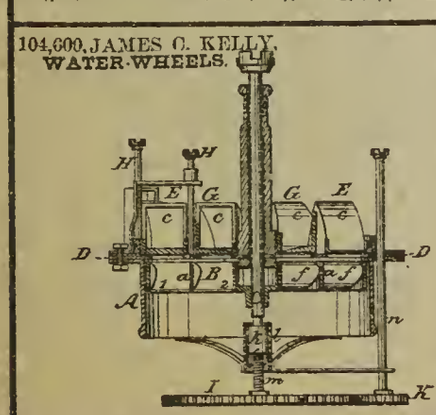
104,598, W. M. KEEFER. LOCKS.



104,599, ARZA B. KEITH, T. K. REED. MACHINE FOR SHAVING HEELS OF BOOTS AND SHOES.

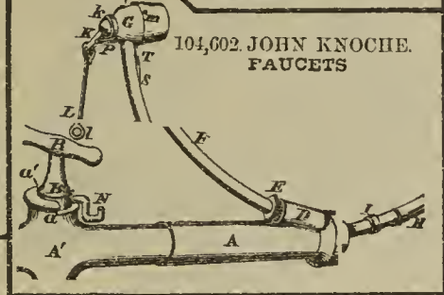


104,600, JAMES C. KELLY. WATER-WHEELS.

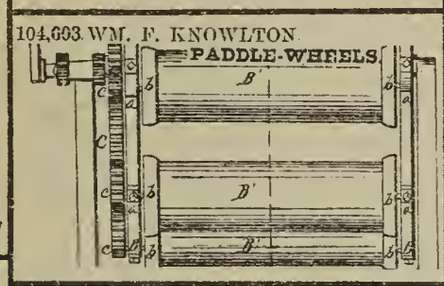


104,601, GEORGE KIRTLAND. HANKS FOR SAILS.

104,602, JOHN KNOCHE. FAUCETS

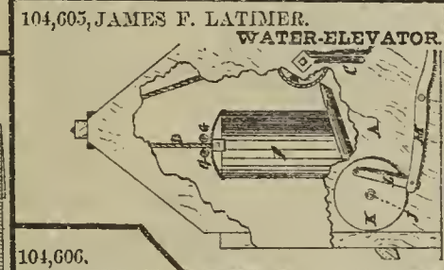


104,603, WM. F. KNOWLTON. PADDLE-WHEELS.

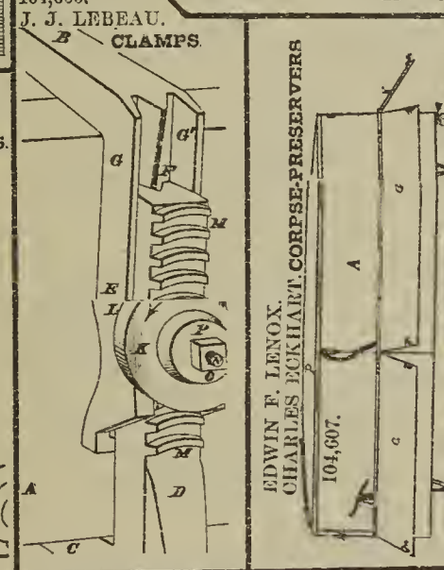


104,604, ROBERT M. LAFFERTY. PUMPS.

104,605, JAMES F. LATIMER. WATER-ELEVATOR.

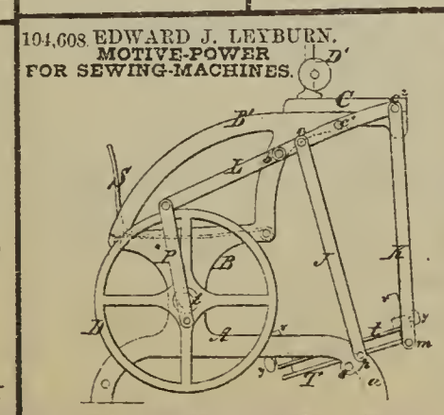


104,606, J. J. LEBEAU. CLAMPS.



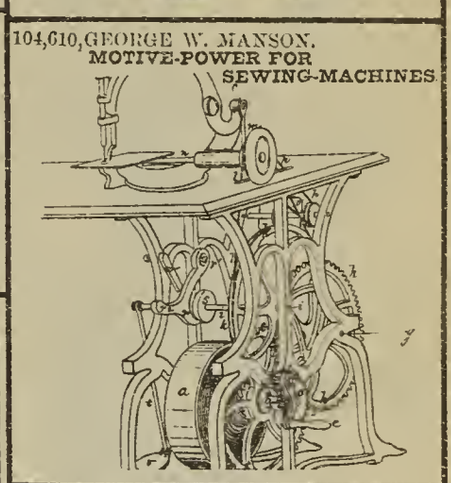
EDWIN F. LENOX, CHARLES BOKHART. CORPSE-PRESERVERS. 104,607.

104,608, EDWARD J. LEYBURN. MOTIVE-POWER FOR SEWING-MACHINES.

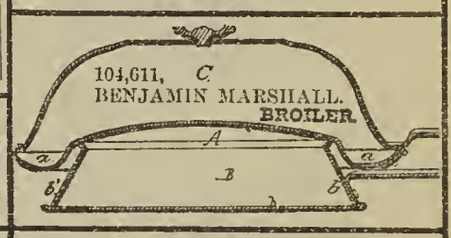


104,609, H. C. LUTHER, C. E. RICHARDS. PICTURE-KNOBS.

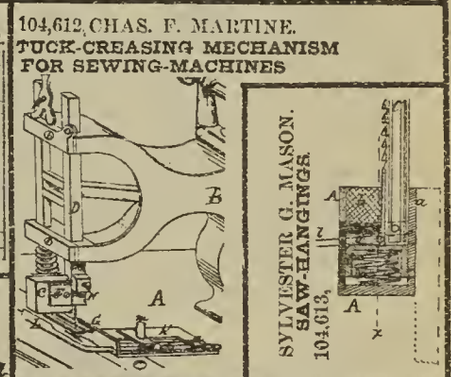
104,610, GEORGE W. MANSON. MOTIVE-POWER FOR SEWING-MACHINES.



104,611, BENJAMIN MARSHALL. BROILER.

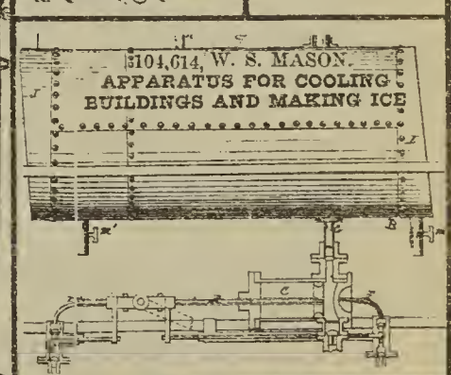


104,612, CHAS. F. MARTINE. TUCK-CREASING MECHANISM FOR SEWING-MACHINES

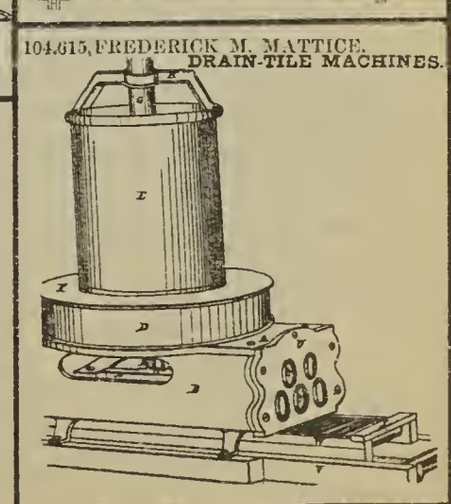


SYLVESTER G. MASON. SAW-HANGINGS. 104,613.

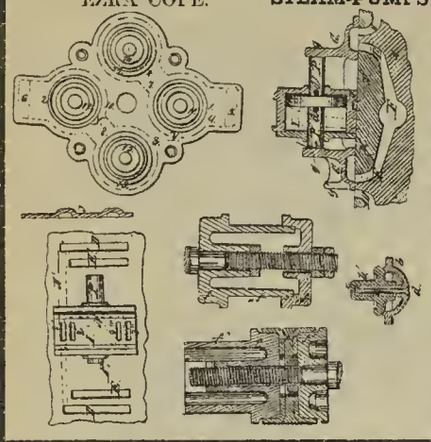
104,614, W. S. MASON. APPARATUS FOR COOLING BUILDINGS AND MAKING ICE



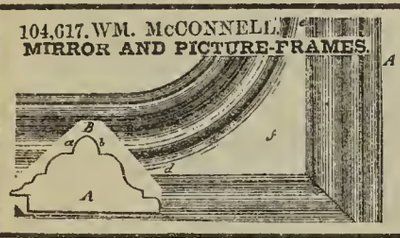
104,615, FREDERICK M. MATTICE. DRAIN-TILE MACHINES.



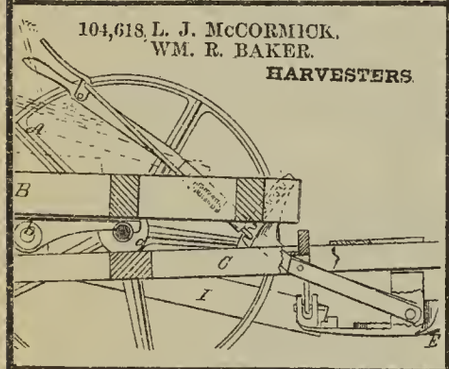
104,616, JAMES R. MAXWELL.
EZRA COPE. STEAM-PUMPS.



104,617. WM. McCONNELL.
MIRROR AND PICTURE-FRAMES.



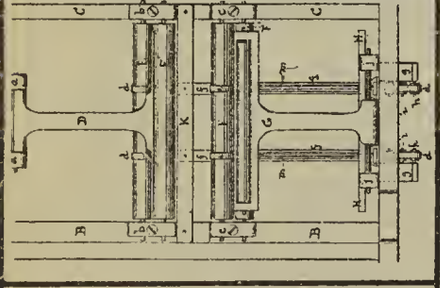
104,618, L. J. McCORMICK.
WM. R. BAKER.
HARVESTERS.



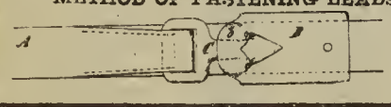
104,619, JOHN McMURTRY.
HARDENING MAGNESIAN LIMESTONE.

104,620 EDMUND H. MEIGS.
MOLDERS' RAMMERS.

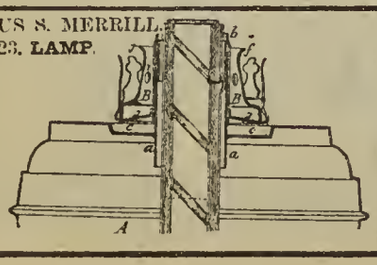
104,621, WILLIAM MENDHAM.
PAPER-FOLDING MACHINES.



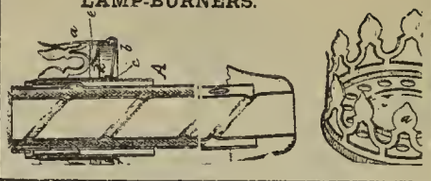
104,622, JNO. MERLETT.
METHOD OF FASTENING LEADS.



RUFUS S. MERRILL.
104,623. LAMP.

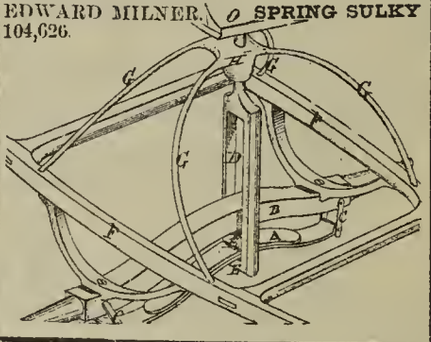


104,624 RUFUS S. MERRILL.
LAMP-BURNERS.

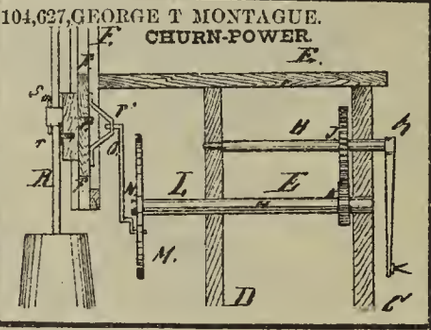


104,625, RUFUS S. MERRILL.
LAMP-BURNER.

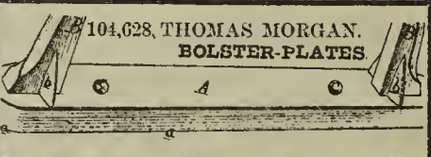
EDWARD MILNER. SPRING SULKY
104,626.



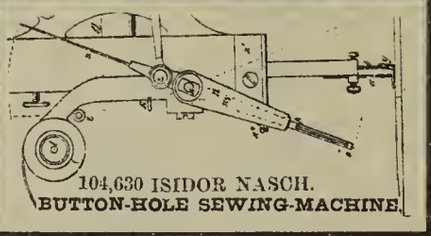
104,627, GEORGE T MONTAGUE.
CHURN-POWER.



104,628, THOMAS MORGAN.
BOLSTER-PLATES.

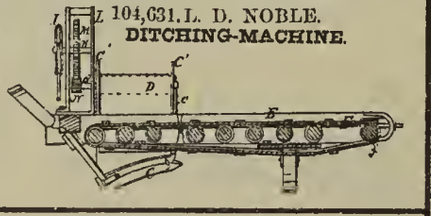


104,629. W. MORRIS. PROCESS AND COMPOSITION FOR WATER PROOFING LEATHER, &c.



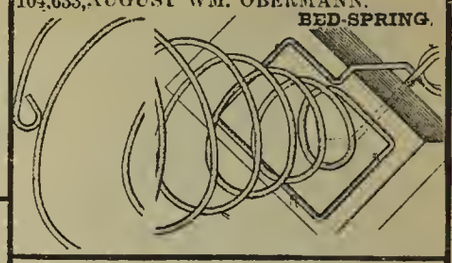
104,630 ISIDOR NASCH.
BUTTON-HOLE SEWING-MACHINE.

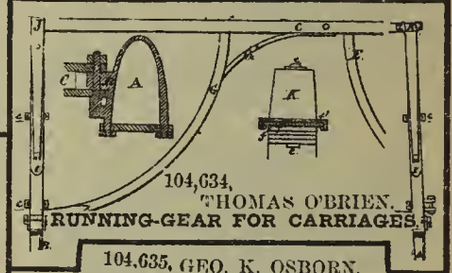
104,631. L. D. NOBLE.
DITCHING-MACHINE.



104,632 HORATIO J. NOYES.
SAMUEL C. TALCOTT.
PORTABLE APPARATUS FOR CURING MEATS, AND FOR OTHER PURPOSES.

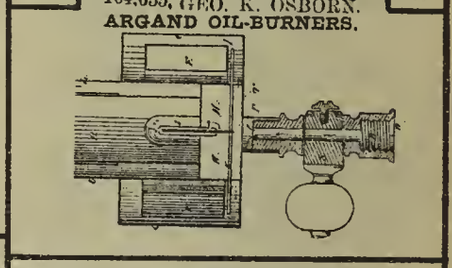
104,633, AUGUST WM. OBERMANN.
BED-SPRING.

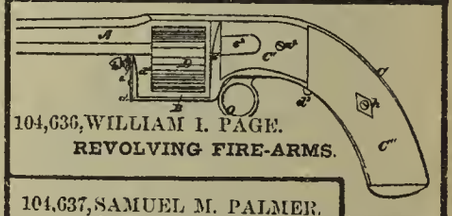




104,634,
THOMAS O'BRIEN.
RUNNING-GEAR FOR CARRIAGES.

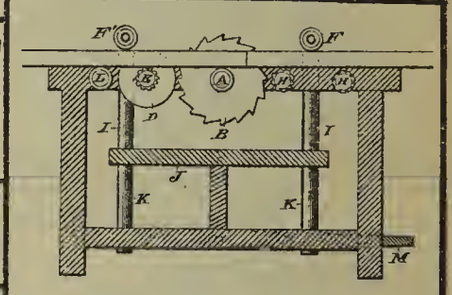
104,635, GEO. K. OSBORN.
ARGAND OIL-BURNERS.





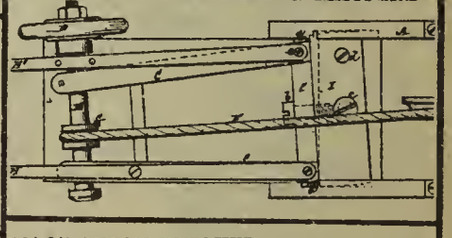
104,636, WILLIAM I. PAGE.
REVOLVING FIRE-ARMS.

104,637, SAMUEL M. PALMER.
GEORGE E. PALMER.
LATH-MACHINE.

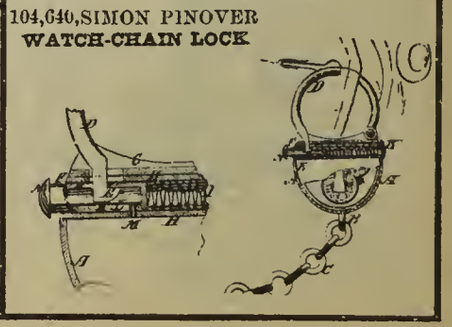


104,638, EUGENE PAVY.
MANUFACTURE OF USEFUL AND ORNAMENTAL FABRICS FROM VEGETABLE AND ANIMAL FIBERS.

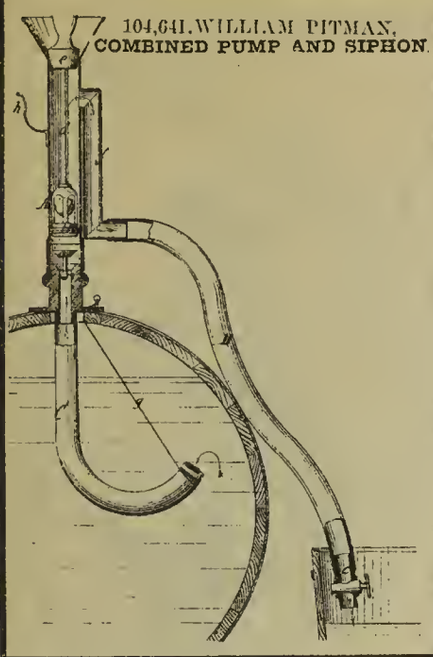
104,639 E. W. PHELPS. SAW-GUMMING AND SHARPENING MACHINE



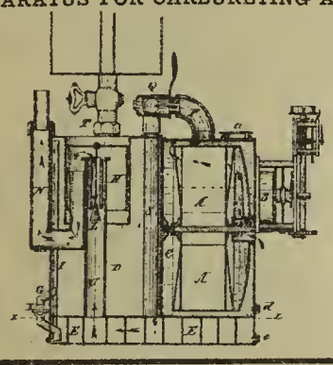
104,640, SIMON PINOVER
WATCH-CHAIN LOCK.



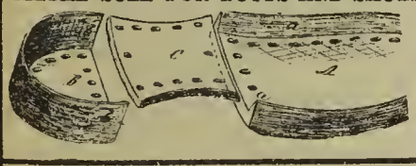
104,641, WILLIAM PITMAN.
COMBINED PUMP AND SIPHON.

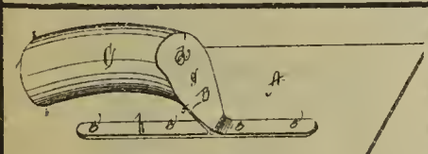


104,642, REUBEN H. PLASS.
APPARATUS FOR CARBURETING AIR.



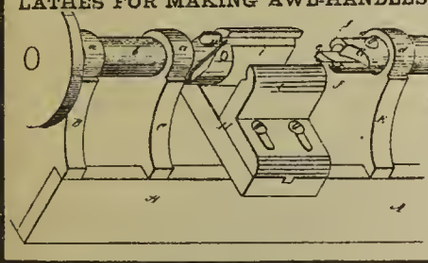
104,643, JAMES PUNDERFORD.
METAL SOLE FOR BOOTS AND SHOES



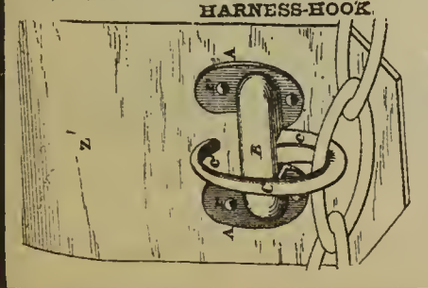


104,644, FRANKLIN REED.
TROWELS.

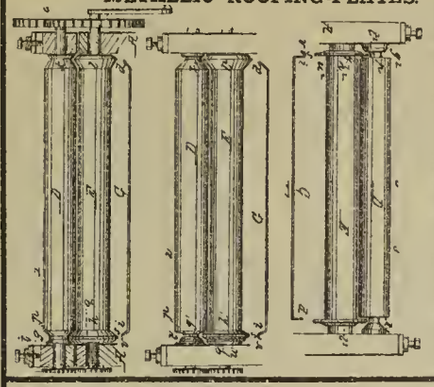
104,645, FRANKLIN REED.
LATHES FOR MAKING AWL-HANDLES.



104,646, MICHAEL REILLY
HARNESS-HOOK.

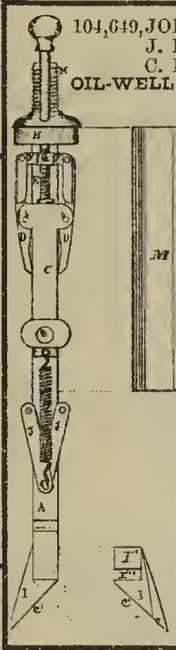


104,647, GEORGE A. REYNOLDS.
MACHINES FOR ROLLING METALLIC ROOFING-PLATES.

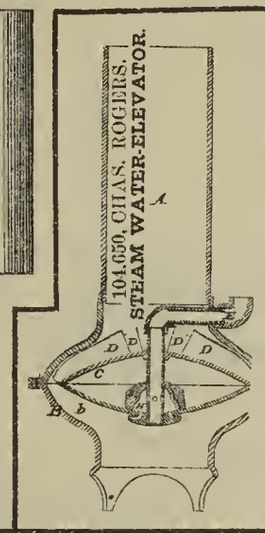


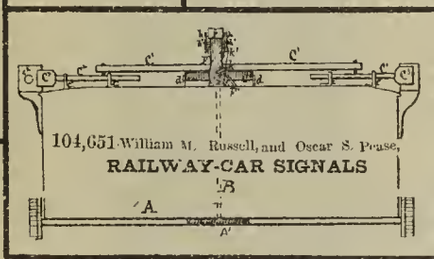
104,648, THOS. C. RICE.
PAINT FOR ROOFS

104,649, JOHN RIGG.
J. E. HALL.
C. F. FENTON.
OIL-WELL REAMERS.



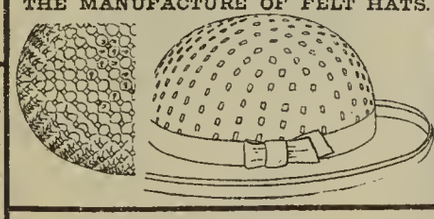
104,650, CHAS. ROGERS.
STEAM WATER-ELEVATOR.



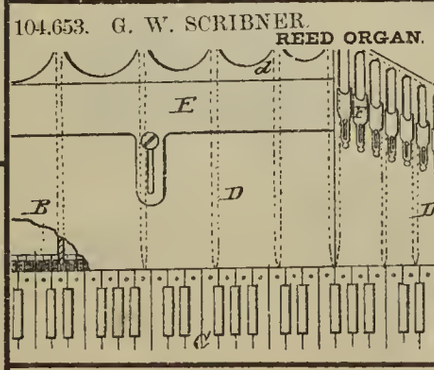


104,651 William M. Russell, and Oscar S. Pease,
RAILWAY-CAR SIGNALS

104,652, G. H. SCRIBNER.
THE MANUFACTURE OF FELT HATS.

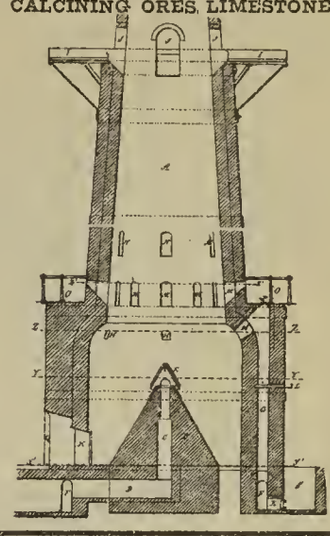


104,653. G. W. SCRIBNER.
REED ORGAN.



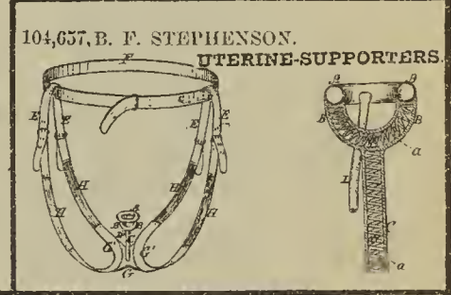
IRVING W. SEARLES.
104,654,
CLOTHES-PIN.

104,655, C. WM. SIEMENS. KILNS FOR CALCINING ORES, LIMESTONE, &c.



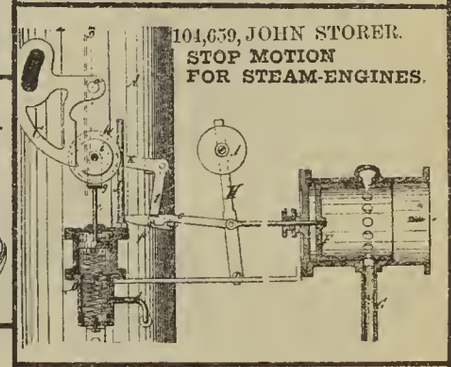
104,656,
COLIN CREE ST. CLAIR.
SPECTACLES.

104,657, B. F. STEPHENSON.
UTERINE-SUPPORTERS.



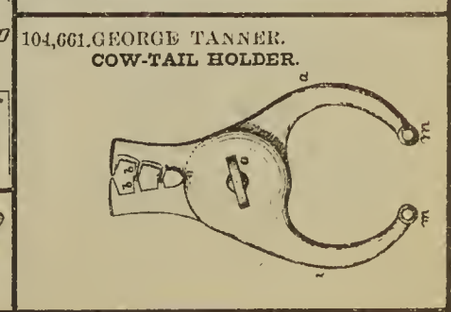
104,658 CAMILLE ST. GERMAIN.
SHOEMAKERS' TOOL.

104,659, JOHN STORER.
STOP MOTION FOR STEAM-ENGINES.

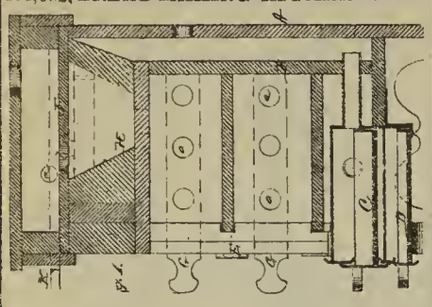


104,660, EDWIN STRAIN.
NEEDLE FOR SEWING-MACHINE.

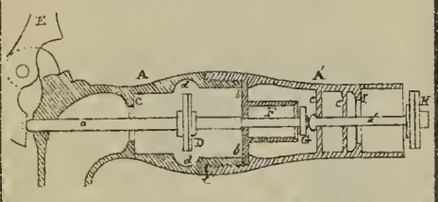
104,661, GEORGE TANNER.
COW-TAIL HOLDER.



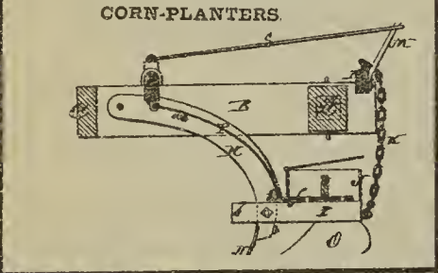
JACOBUS ARNOLDUS HENDREEKUS TE GANTVOORT.
104,662, BREAD-MAKING APPARATUS.



104,663, ROBERT TILLY.
FAUCETS.

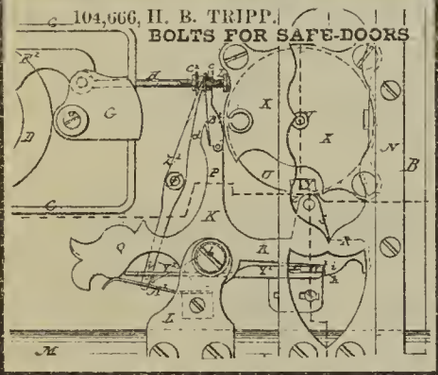


104,664, BENJAMIN F. TOMB.
CORN-PLANTERS.

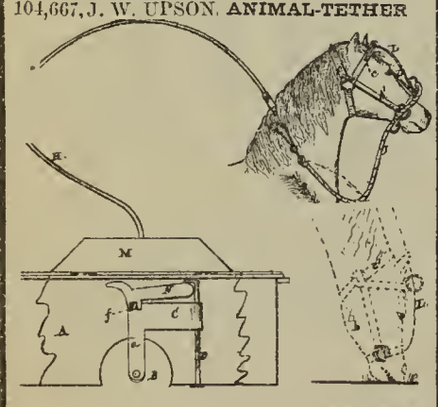


104,665, ARTHUR TOWNE.
COMPOSITION BRONZE-PAINT.

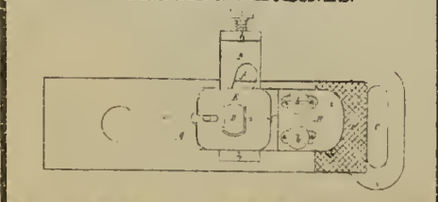
104,666, H. B. TRIPP.
BOLTS FOR SAFE-DOORS



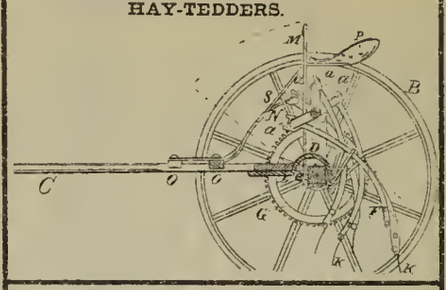
104,667, J. W. UPSON. ANIMAL-TETHER



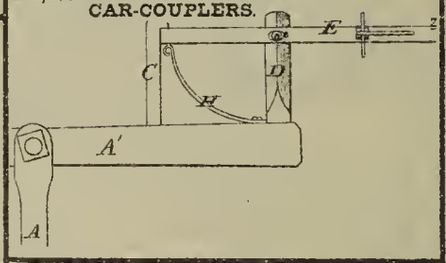
104,668 CHARLES VARNEY.
PEGGING-MACHINES.



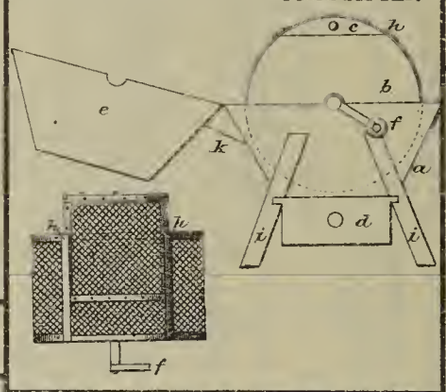
104,669, HORACE WARREN.
HAY-TEDDERS.



104,670. PAUL WEATHERBEE.
CAR-COUPLERS.

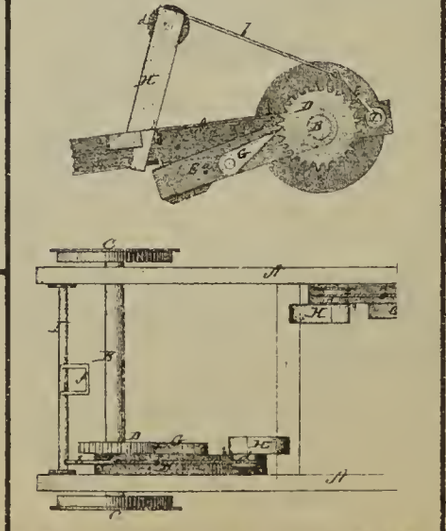


104,671. ALLEN P. WEBB
COAL-SIFTER



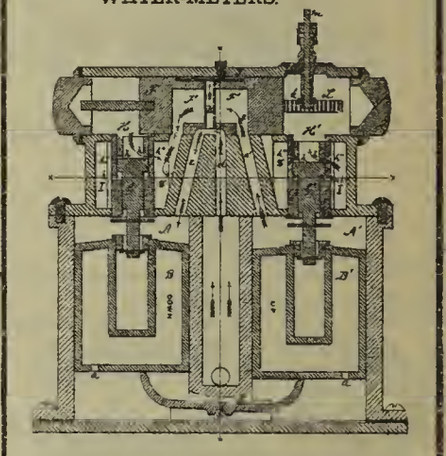
104,672. JONATHAN R. WEBBER.
LATCHES OR FASTENERS FOR DOORS.

104,673, HILYARD WELCH.
STREET-CAR STARTERS.

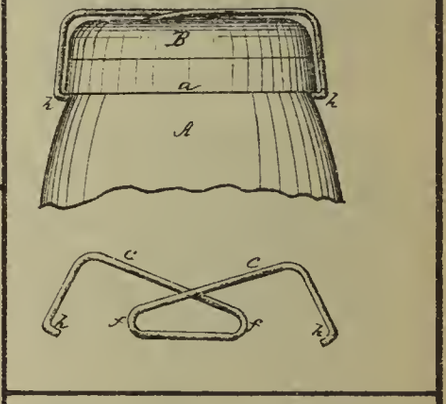


104,674, E. WHITEHEAD.
SKIPPING-HOOPS.

104,675. GEORGE B. WIGGIN
WATER-METERS.

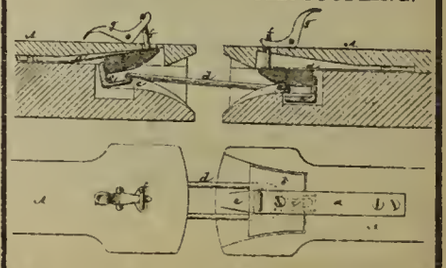


104,676, B. B. WILCOX. FRUIT-JARS.

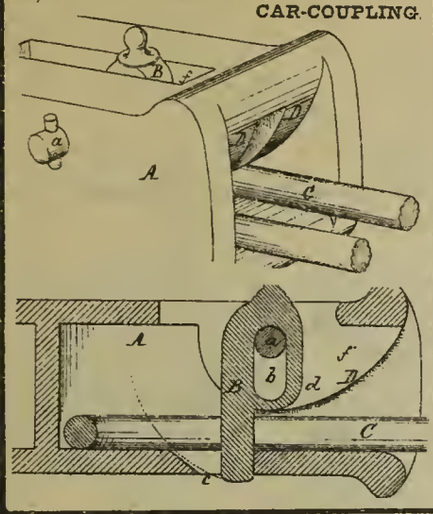


104,677. ELIJAH A. WILDER MEDICINE FOR CURE OF DISEASES IN CATTLE.

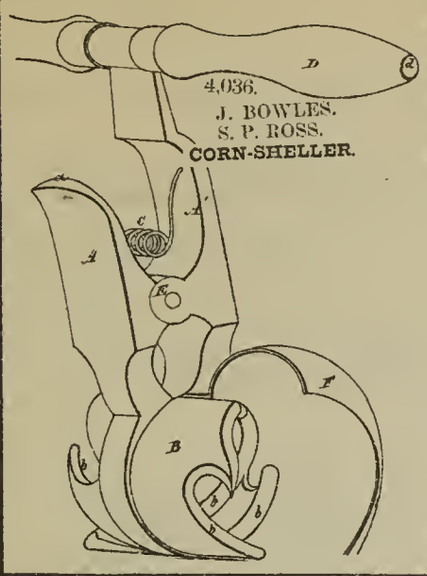
104,678. R. F. WOLCOTT.
CAR-COUPLING.

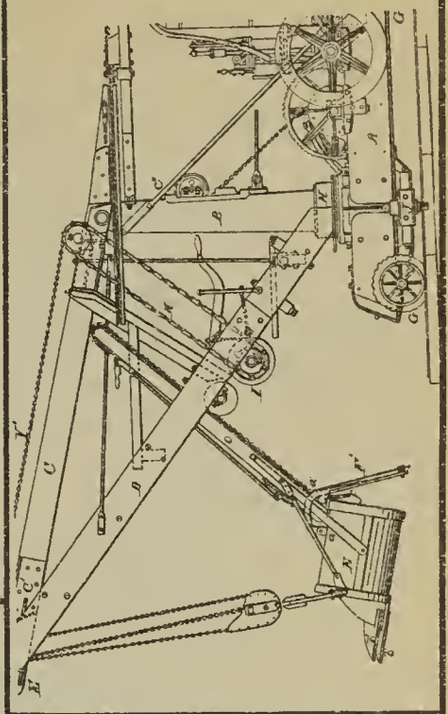


104,679. J. C. WRENSHALL.
CAR-COUPLING.

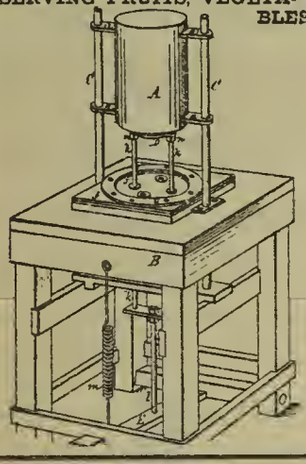


4,036.
J. BOWLES.
S. P. ROSS.
CORN-SHELLER.

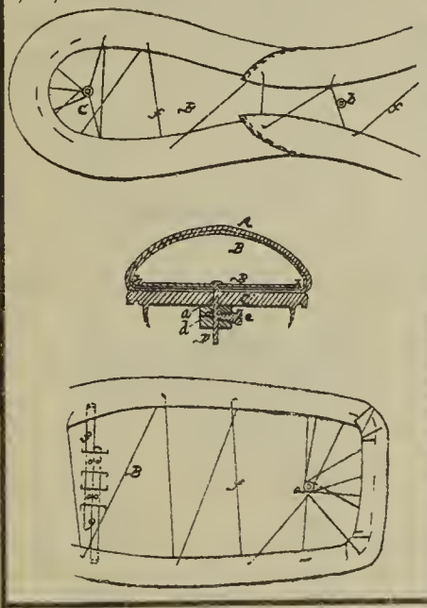




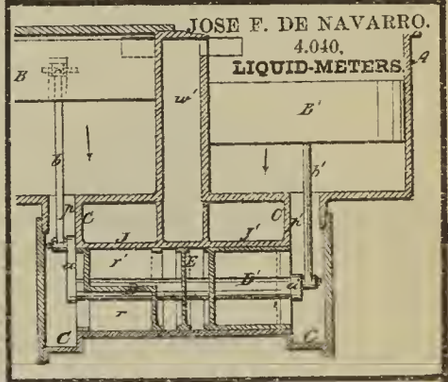
104,680, J. C. WRENSHALL.
PROCESS AND APPARATUS FOR PRESERVING FRUITS, VEGETABLES, &c.



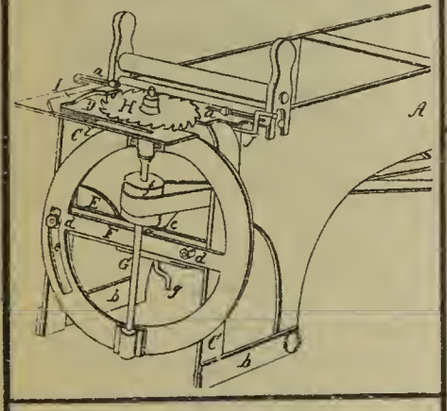
4,037, CHARLES BUFFUM. SHOES.



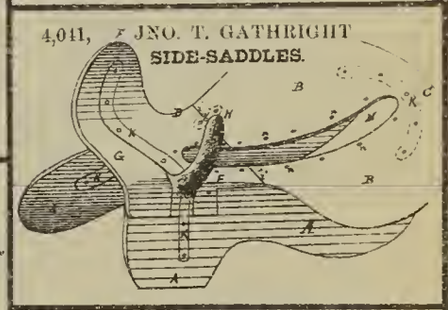
JOSE F. DE NAVARRO.
4,040.
LIQUID-METERS.



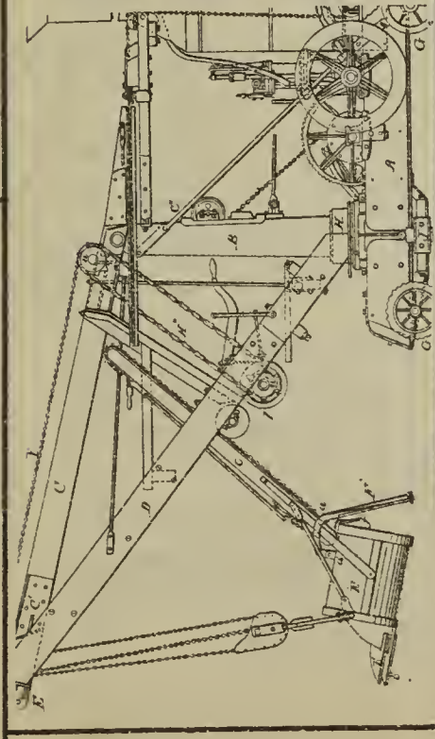
104,681. JAMES YORK, Jr.
RE-SAWING MACHINES.



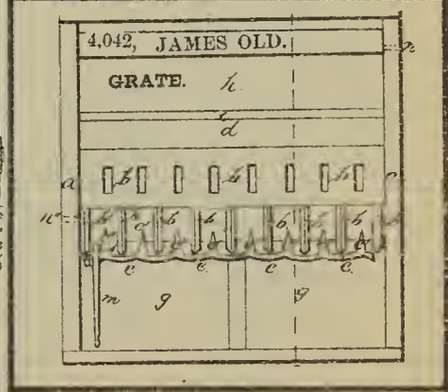
4,041, JNO. T. GATHRIGHT
SIDE-SADDLES.



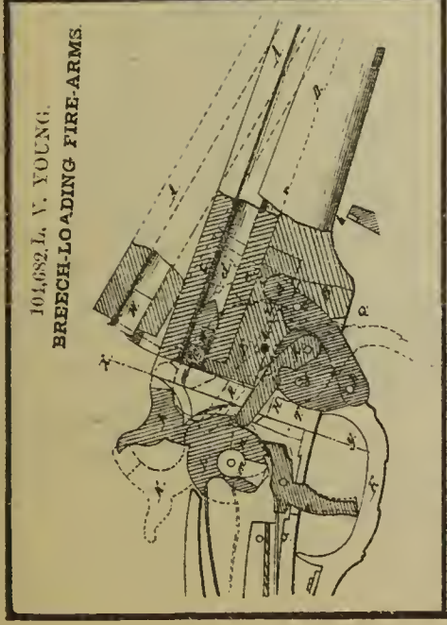
4,038, OLIVER S. CHAPMAN.
EXCAVATING-MACHINES.



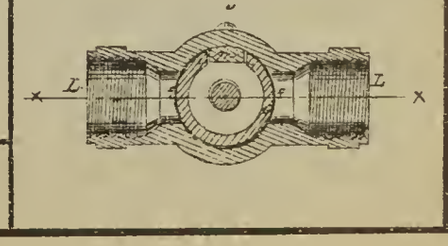
4,042, JAMES OLD.
GRATE.



104,682, L. V. YOUNG.
BREECH-LOADING FIRE-ARMS.



4,043 EDWARD A. ROCK.
JAMES S. GILL.
GEO. SNOWDEN REDFIELD.
GLOBE STEAM-VALVES



4,039, OLIVER S. CHAPMAN.
EXCAVATING-MACHINES.

ILLUSTRATIONS OF PATENTS

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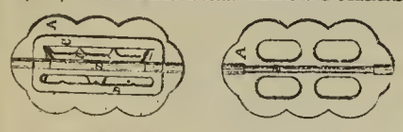
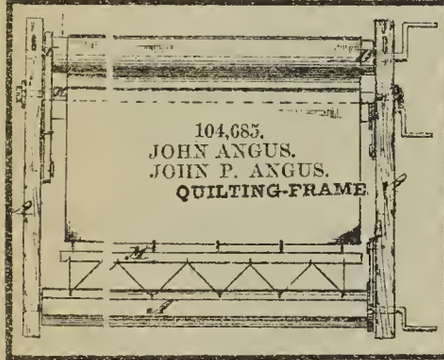
JUNE 28, 1870.

104,683, I. ALEXANDER. **BELT-BUCKLES.**



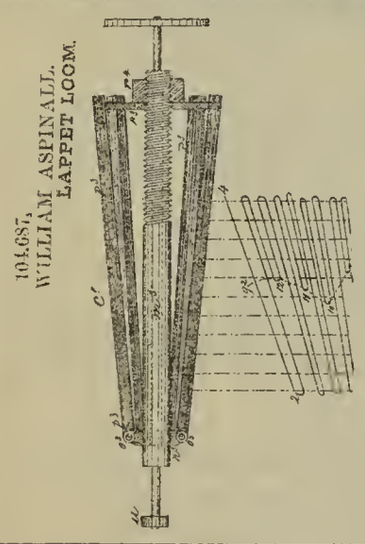
104,684, CHARLES ANGLE. **ANIMAL TRAP**

104,685, JOHN ANGUS. JOHN P. ANGUS. **QUILTING-FRAME.**

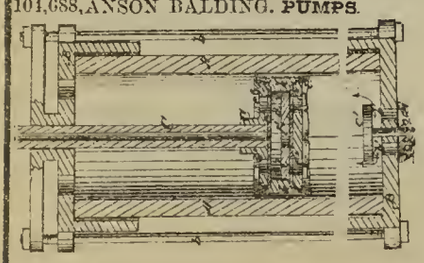


104,686, GEORGE F. ANSELL. **MANUFACTURE OF IRON AND STEEL.**

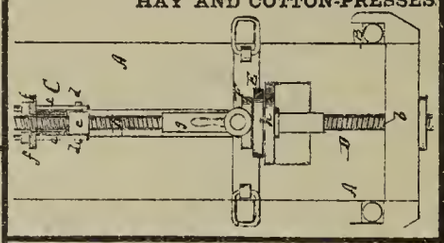
104,687, WILLIAM ASPINALL. **LAPPET LOOM.**



104,688, ANSON BALDING. **PUMPS.**

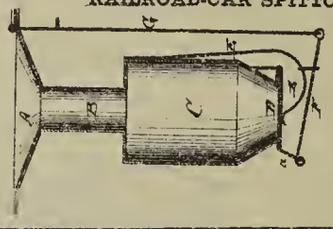


104,689, RICHARD BALL. **HAY AND COTTON-PRESSES.**

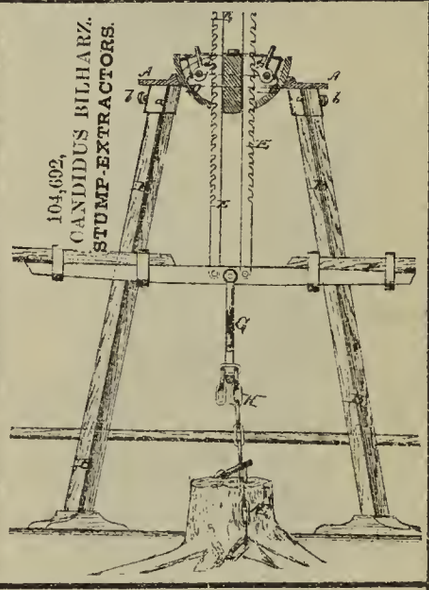


104,690, W. E. BARTON **SLEIGH-BELLS**

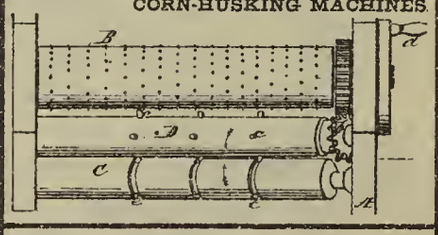
104,691, WILLIAM JAMES BEACH. **RAILROAD-CAR SPITTOON.**



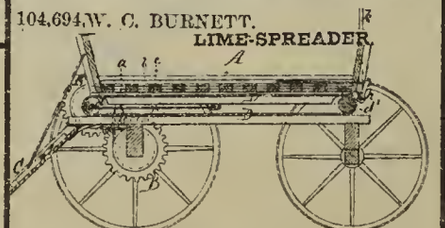
104,692, CANDIDUS BILHARZ. **STUMP-EXTRACTORS.**



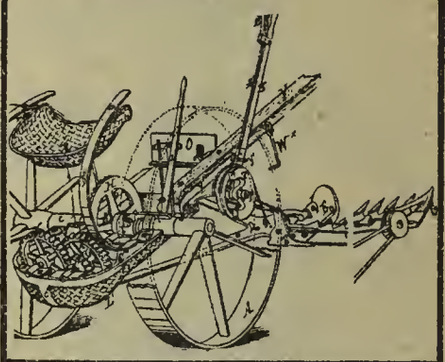
104,693, THOMAS J. BURGESS. **CORN-HUSKING MACHINES.**

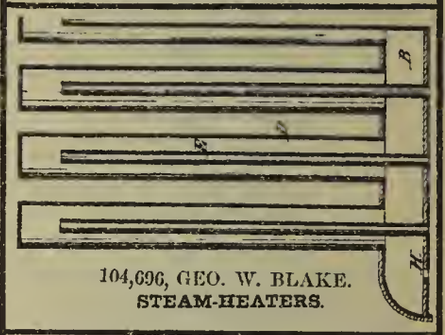


104,694, W. C. BURNETT. **LIME-SPREADER.**



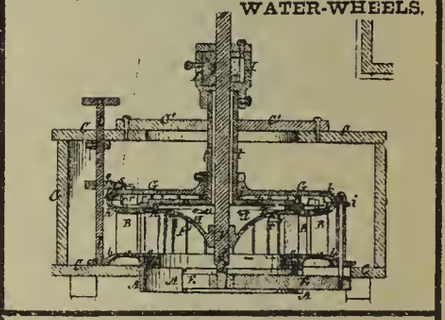
104,695, JAMES BIRCH. ADDISON CROSBY. THOMAS BIRCH. **HARVESTERS.**



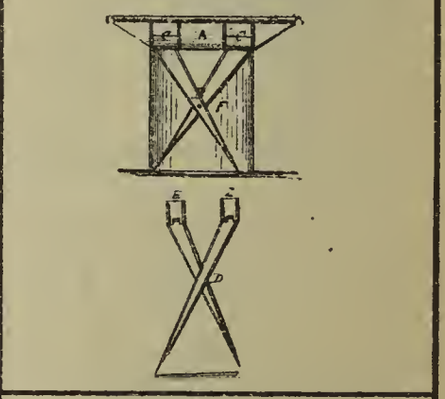


104,696, GEO. W. BLAKE. **STEAM-HEATERS.**

104,697, OLIVER J. BOLLINGER. **WATER-WHEELS.**



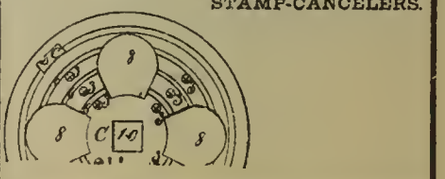
104,698, EDWIN BOYNTON. **BAG-HOLDERS.**



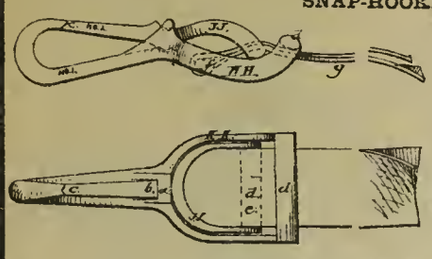
104,699, **CANCELED**

104,700, WILLIAM S. BREWSTER. **PREPARATION OF WHEAT FOR FOOD.**

104,701, FRANKLIN W. BROOKS. **STAMP-CANCELERS.**

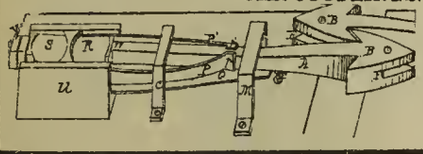


104,702, GEORGE A. BROWN. SNAP-HOOK.

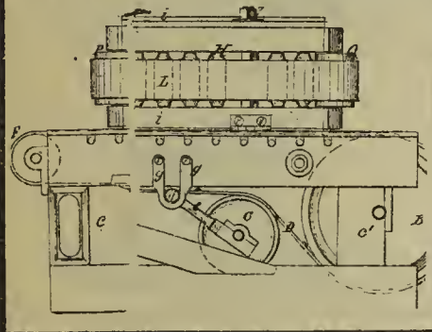


104,703, GEO. BUCHANAN. COMBINED HEARTH, GRATE, AND FENDER.

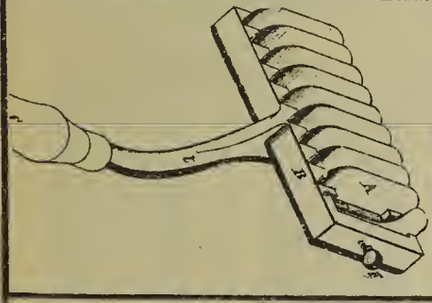
104,704, SAMUEL P. CARLL. AMOS SHUTE. CAR-COUPLINGS.



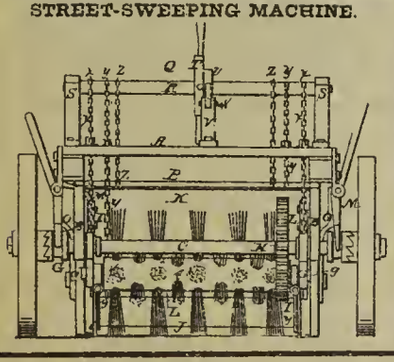
104,705, CYRUS CHAMBERS, JR. OFF-BEARING APPARATUS FOR BRICK-MACHINES.



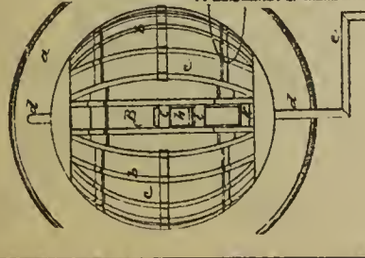
104,706, F. W. CODDING. DEVICE FOR TENDERING OR CHOPPING MEAT.



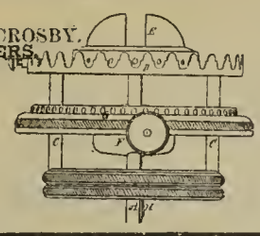
104,707, ALEX. A. CONSALVI. STREET-SWEEPING MACHINE.



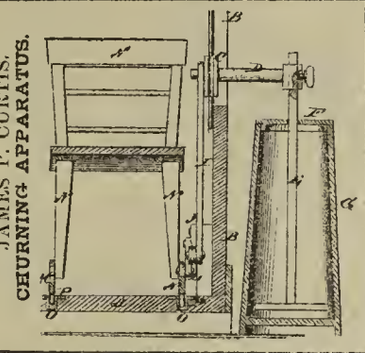
104,708, G. W. COTTINGHAM. WASHING-MACHINE.



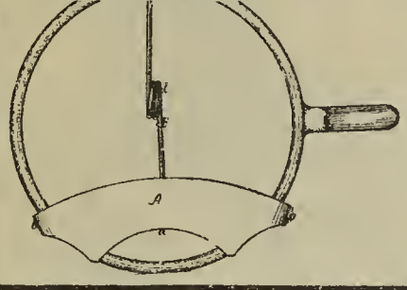
104,709, ROBERT R. CROSBY. LAMP-BURNERS.



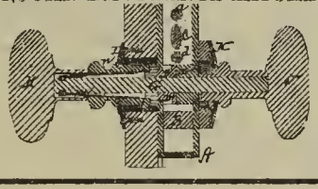
104,710, JAMES P. CURTIS. CHURNING APPARATUS.



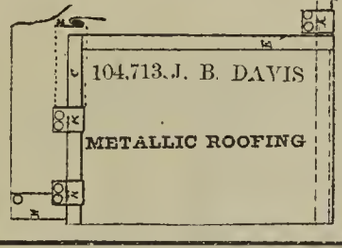
104,711, GEO. P. CUTLER. MUSTACHE-SHIELD FOR CUPS.



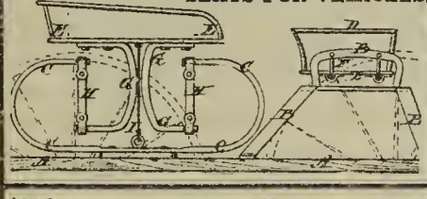
104,712, JOHN DAVIS. KNOB-LATCHES.



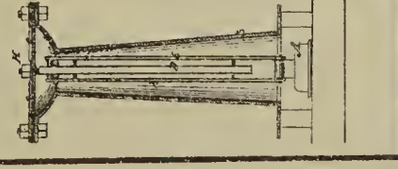
104,713, J. B. DAVIS. METALLIC ROOFING.



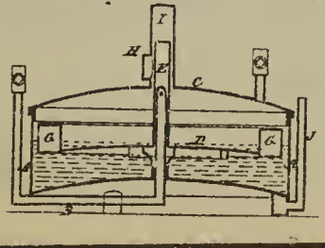
104,714, PORCIUS FESTUS DEAN. SEATS FOR VEHICLES.



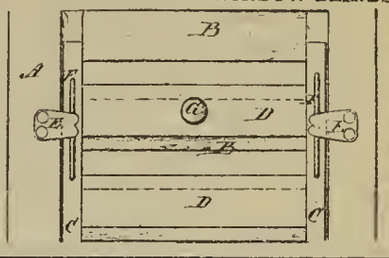
104,715, WILLIAM DILLON. BALANCE SLIDE-VALVES.



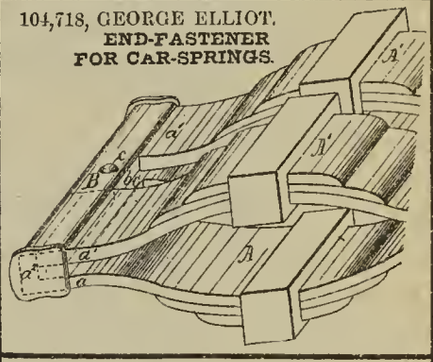
104,716, A. E. DUPAS. ARTHUR BARBARIN. APPARATUS FOR CARBURETING AIR.



104,717, STEPHAN EICH. WINDOW-BLINDS.



104,718, GEORGE ELLIOT. END-FASTENER FOR CAR-SPRINGS.

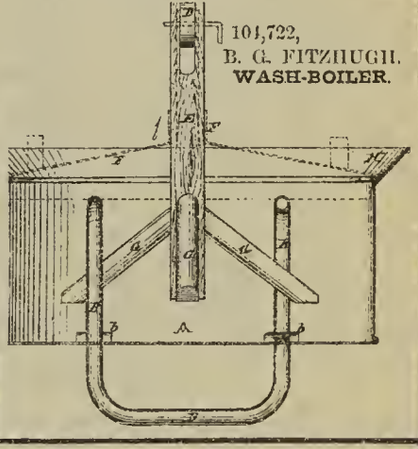


104,719, ELIHU ENGLAND. COMPOUND FOR STUFFING AND TANNING HIDES.

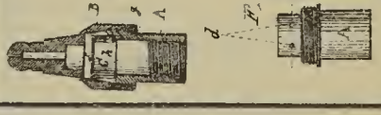
104,720, GEO. K. FARRINGTON. CLOTHES-PIN.

104,721, GEORGE L. FEARS. LINIMENT FOR TREATING NEURALGIA.

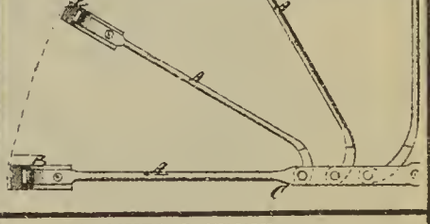
104,722, B. G. FITZHUGH. WASH-BOILER.



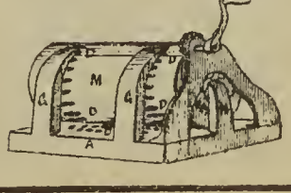
104,723, CHARLES S. FORD. GAS-BURNERS.



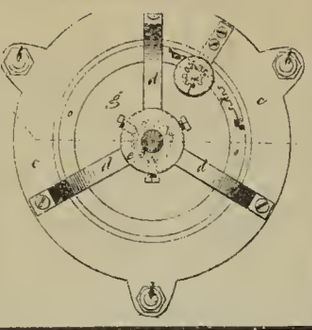
104,724, JOINVILLE F. FOWLER. BOWS FOR CARRIAGE-TOPS.



104,725, SAMUEL C. FRINK. WASHING-MACHINE.

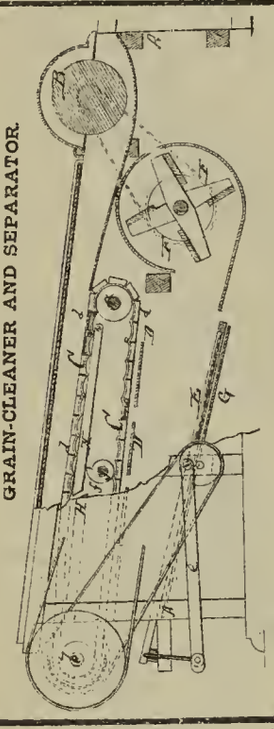


104,726. OLNEY FULLER. WATER-WHEELS.

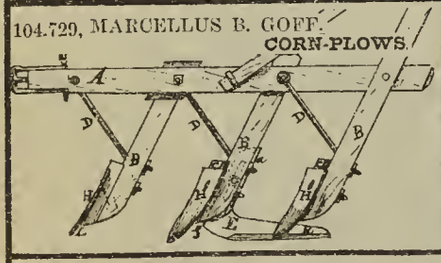


104,727, GEORGE C. FURBER. MEDICAL COMPOUND.

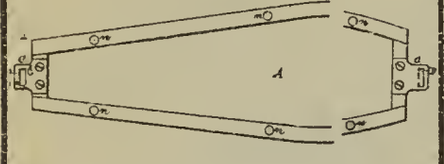
104,728. WILLIAM GARDNER. GRAIN-CLEANER AND SEPARATOR.



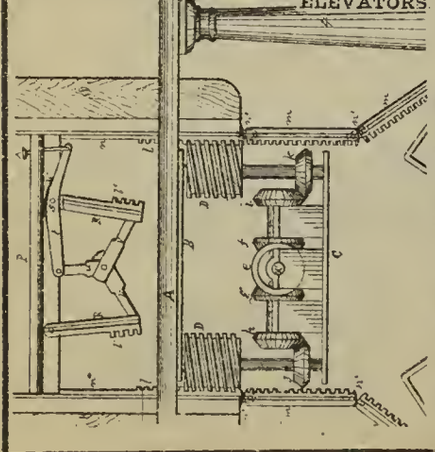
104,729, MARCELLUS B. GOFF. CORN-PLOWS.



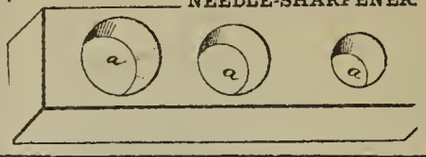
104,730 WILLIAM HAMILTON. COFFIN-FASTENING.



104,731, WILLIAM HAMILTON. ELEVATORS.



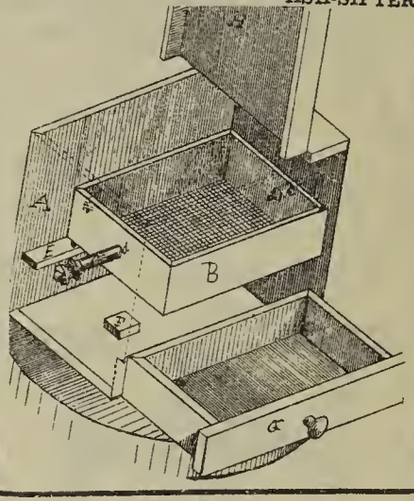
104,732, EDGAR K. HAYNES. NEEDLE-SHARPENER.



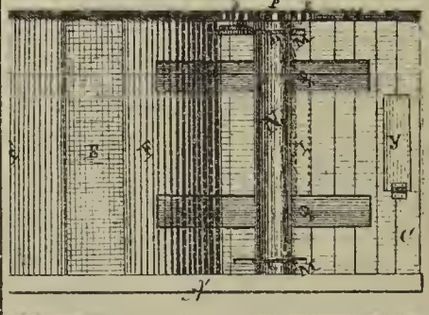
104,733, FREDERICK HENDERSON. SHANK-LASTER AND PUNCH.

104,734, JOHN HENRY. DEPILATING AND TANNING HIDES AND SKINS.

104,735, LEWIS G. HOFFMAN. ASH-SIFTER



104,736, GEO. W. HOUGH. WM. S. HOUGH. DUMPING-MACHINES.



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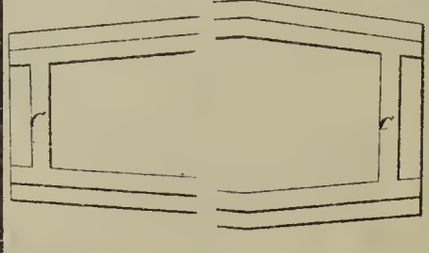

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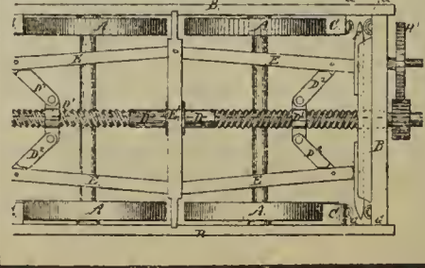
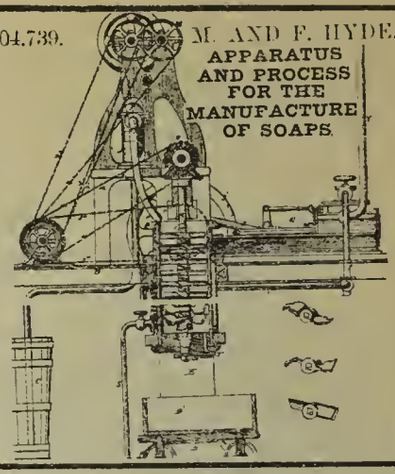


104,739. M. AND F. HYDE. APPARATUS AND PROCESS FOR THE MANUFACTURE OF SOAPS.



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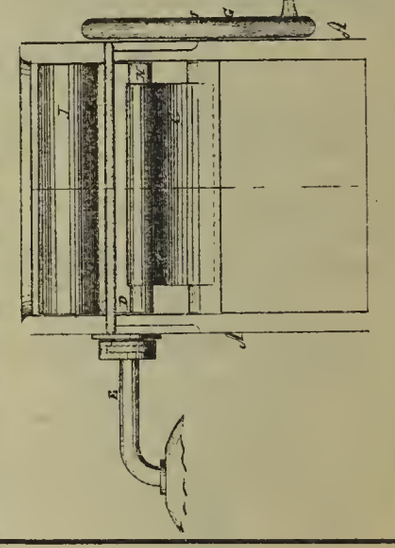

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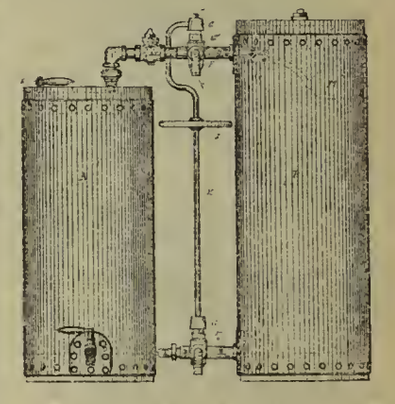
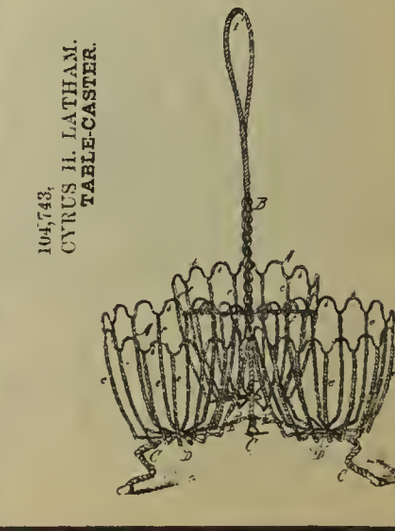
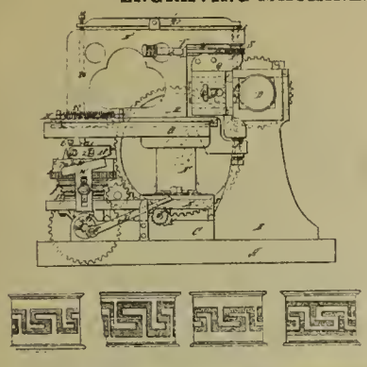
104,742, ALBERT H. LADNER. THOMAS. F. FENLIN. APPARATUS FOR ELEVATING BEER



104,743. CYRUS H. LATHAM. TABLE-CASTER.



104,744, JOHN D. LATHROP.
ENGRAVING-MACHINES.



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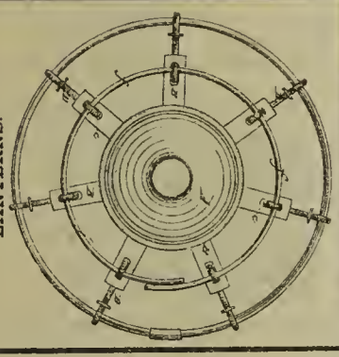

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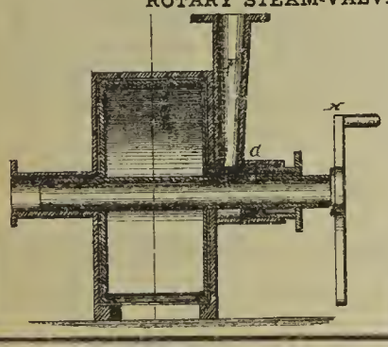
ROTARY STEAM-VALVE.



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GEO. H. PERKINS.
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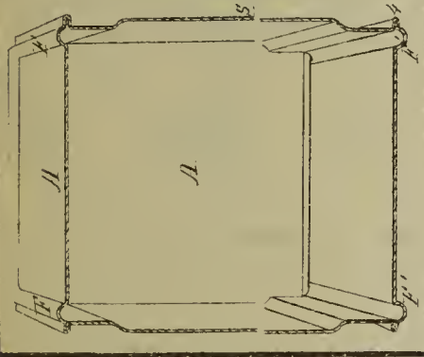
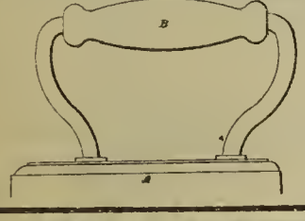


104,748, LUTHER LINCOLN.
FLAT OR SAD-IRONS.



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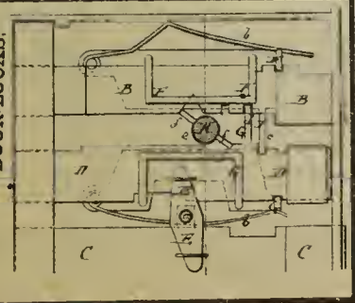
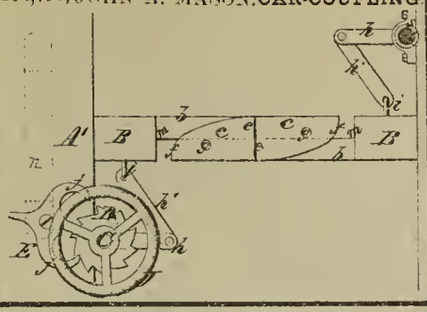
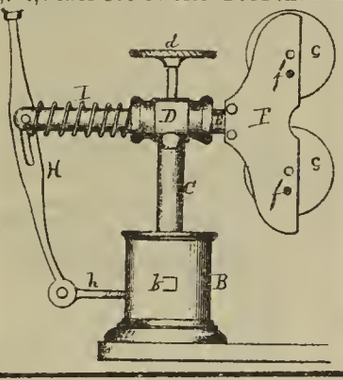
DOOR-LOCKS.



104,750, JOHN A. MASON. CAR-COUPLING.



104,751, FRANCIS B. MATTSON. LATHES.



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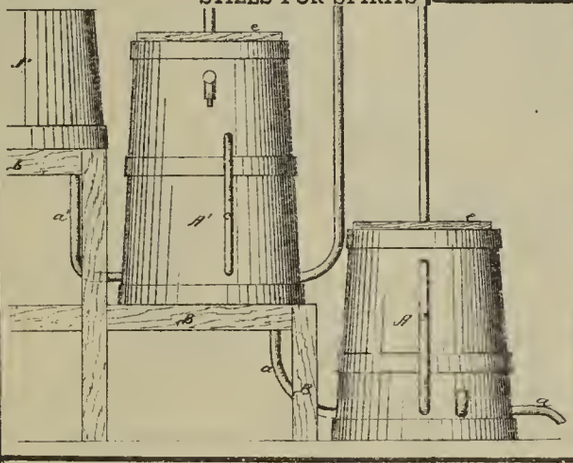
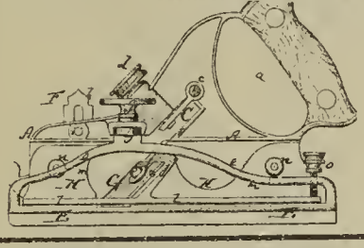
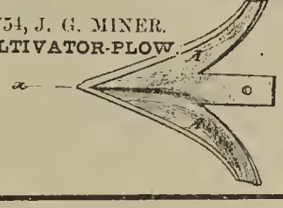
STILLS FOR SPIRITS.



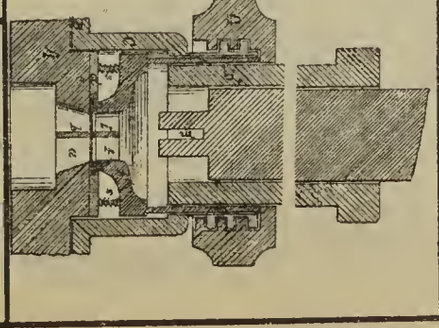
104,753, CHARLES G. MILLER.
CARPENTERS' PLANES.



104,754, J. G. MINER.
CULTIVATOR-PLOW.



104,755, CHAS. S. MOSELEY.
PUNCHING-MACHINE.



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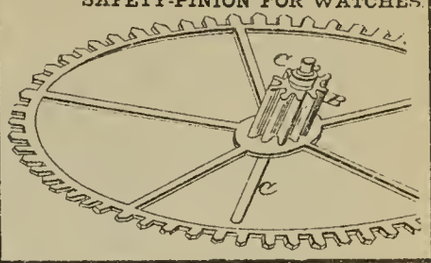
SAFETY-PINION FOR WATCHES.



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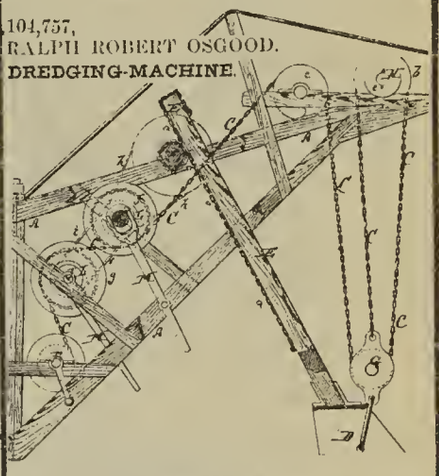
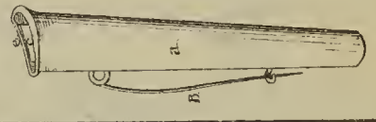


104,758, EDWARD MYERS.
MEDICAL COMPOUND.

104,759, ROBERT L. NEILL.
BOILER-TUBE PLUG.

104,760, DAVID B. PAGE.
CASES FOR SCISSORS.



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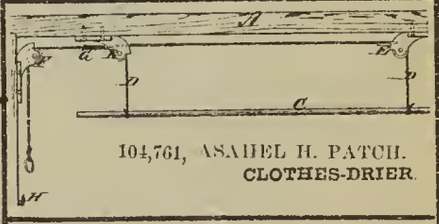
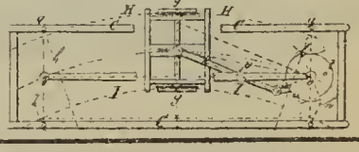
CLOTHES-DRIER.



104,762, JOSEPH R. PERRY.
DANIEL W. PERRY.
JAMES PERRY.
STREET-RAILWAY CAR-TRUCK.



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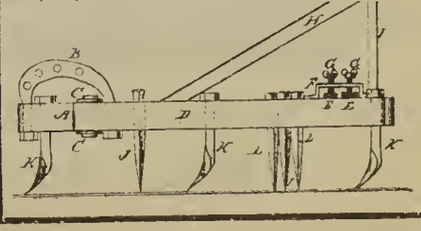
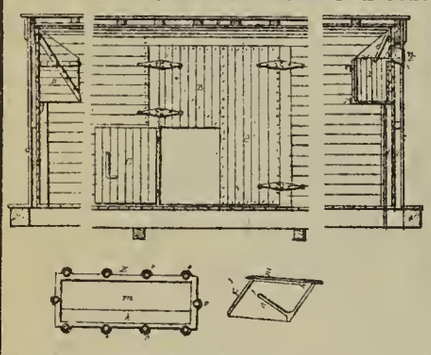


104,764, NATHL. PLYMPTON. TEA-POT.

104,765, JOS. D. POTTS.
B. P. LAMASON.
REFRIGERATOR RAILROAD CAR.



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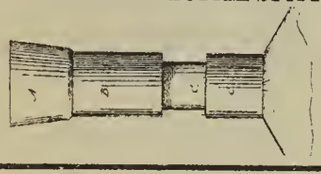
BOTTLE-STOPPERS.



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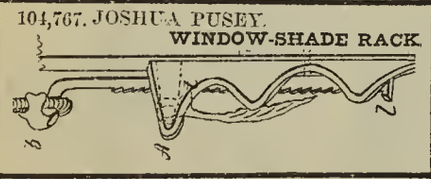
WINDOW-SHADE RACK.



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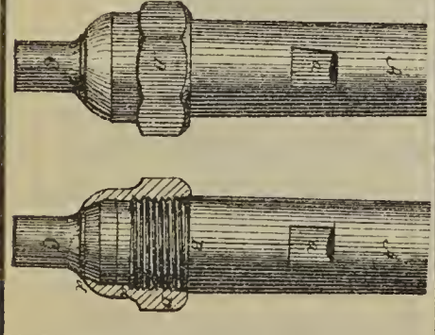
DAVID RAMLER.
AUTOMATIC FAN.

104,769, ISAAC P. RICHARDS. PUNCHES.



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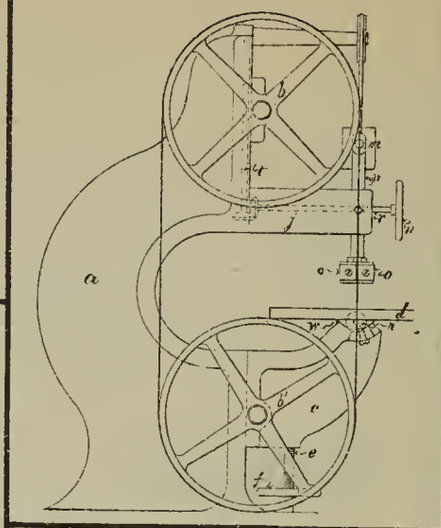
WM. H. THORNE.
BAND SAWING-MACHINE.



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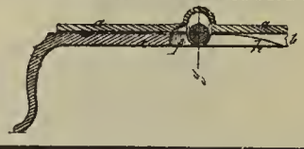
STOVE AND FURNITURE-LEG.



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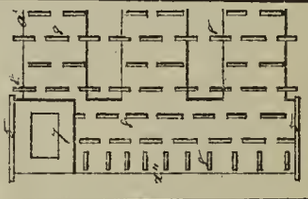
JOHN J. ROEPER.
STEAM HEATER.



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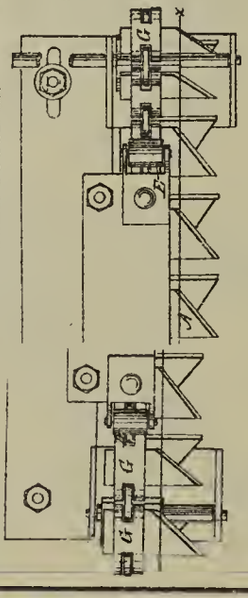
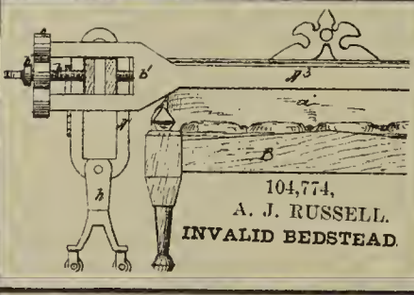
FRANCIS E. ROGERS.
HARVESTER-CUTTERS.





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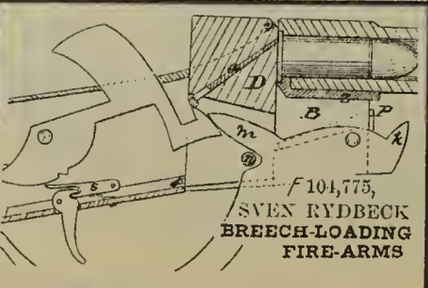
A. J. RUSSELL.
INVALID BEDSTEAD.



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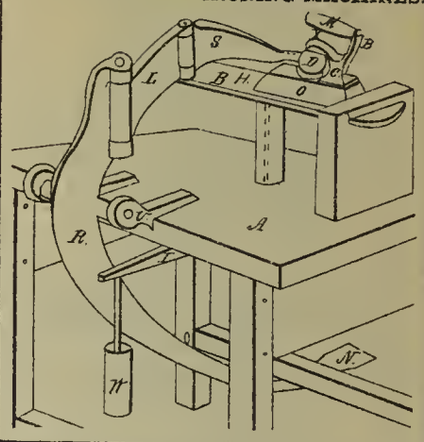
SVEN RYDBECK
BREECH-LOADING
FIRE-ARMS

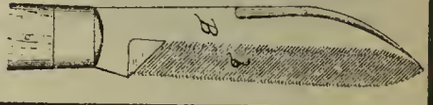
104,776, A. C. SAWYER.
IRONING-MACHINES.



104,777, JOHN K. SAX.
MOLDS FOR CAR-WHEELS.

104,778, JOSEPH J. SCHROYER.
WOOD PAVEMENT.

104,779, HENRY SEARS.
EDMUND B. SEARS.
KNIFE FOR CUTTING SHEAF-BANDS.



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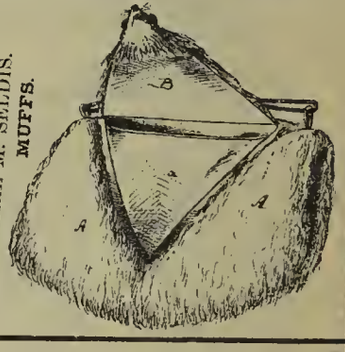
RAPHAEL M. SELDIS.
MUFFS.



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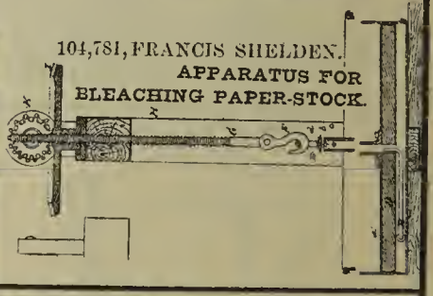
APPARATUS FOR
BLEACHING PAPER-STOCK.



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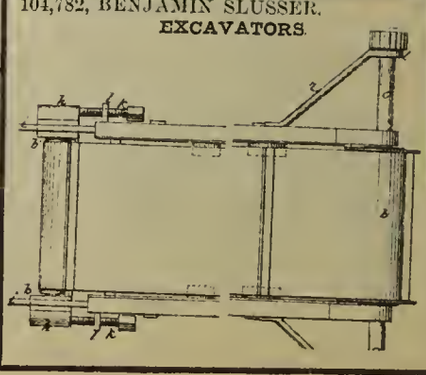
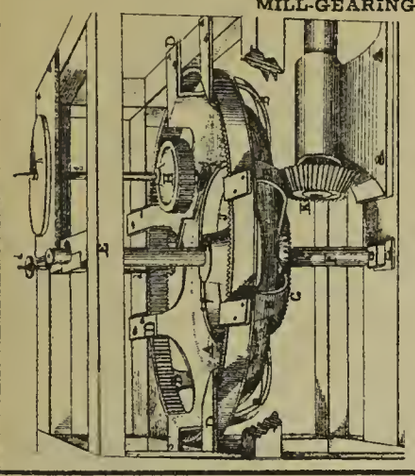
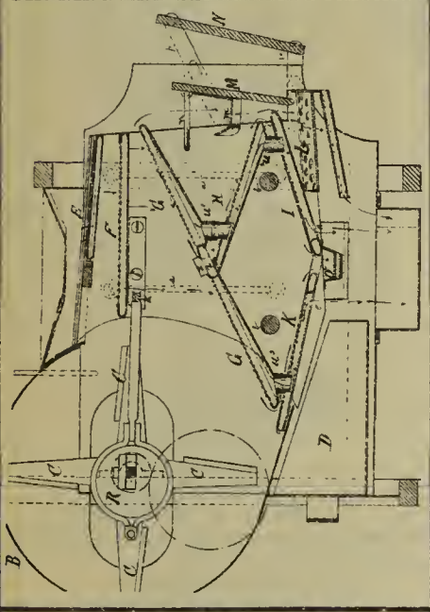
EXCAVATORS.



104,783, HARLOW M. SMITH.
MILL-GEARING.



104,784, JAS. I. SMITH, M. D. GRAIN
WM. H. NICODEMUS.
FANNING AND SEPARATING-MACHINE



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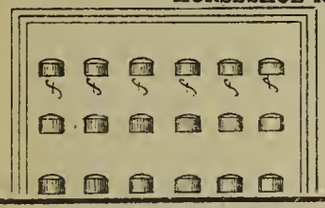
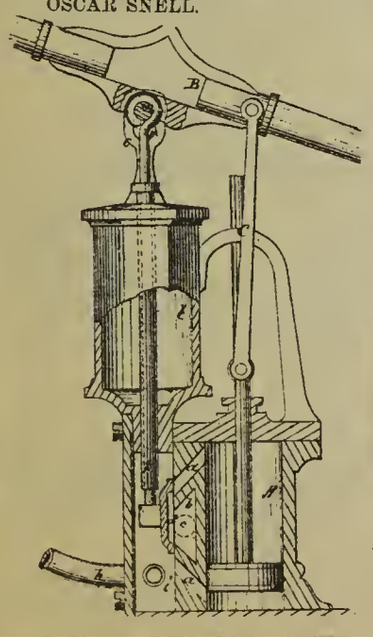
MANUFACTURE OF STEEL-HEADED
HORSESHOE NAILS.



104,786, PETER M. SNELL. PUMPS.
OSCAR SNELL.



104,787, CHARLES P. SNOW.
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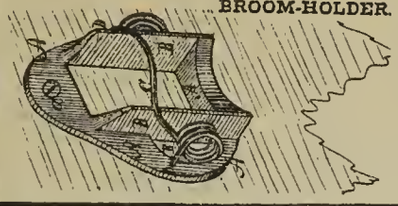

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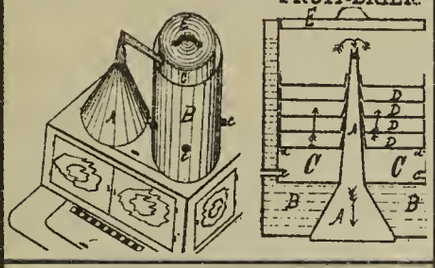
FRUIT-DRIER.



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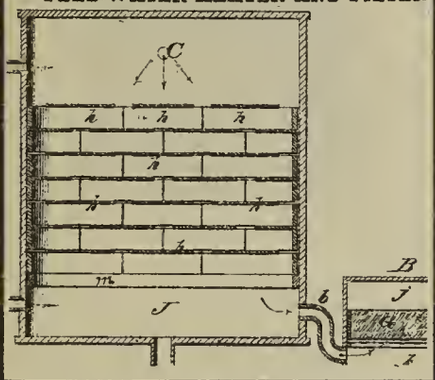
FEED-WATER HEATER AND FILTER



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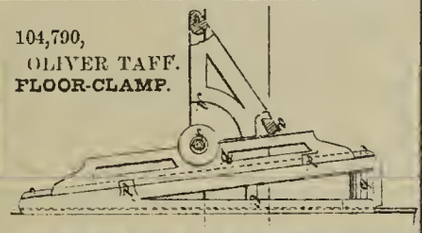
OLIVER TAFF.
FLOOR-CLAMP.



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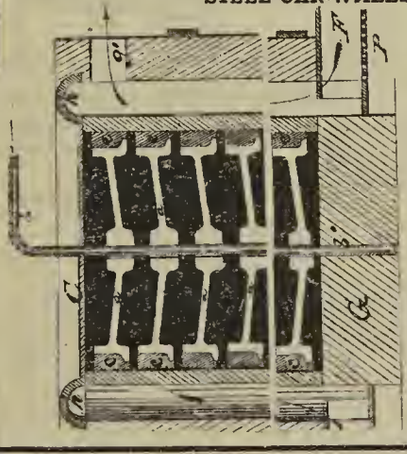
MEDICAL COMPOUND.

104,792, JOHN BLAKE TARR.
STEEL CAR-WHEEL.



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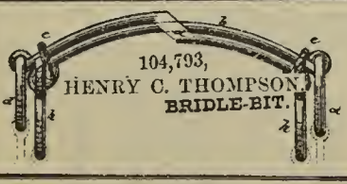
BRIDLE-BIT.



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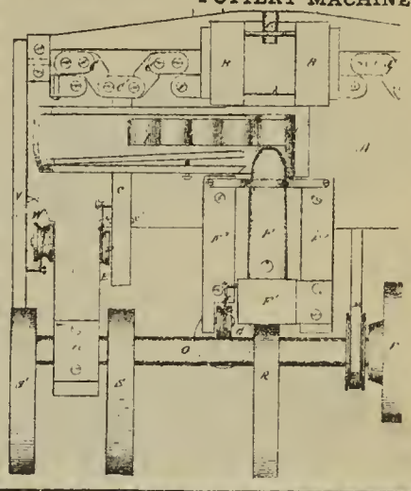
BOTTLE-STOPPERS.

104,795, SAMUEL R. THOMPSON.
POTTERY MACHINE



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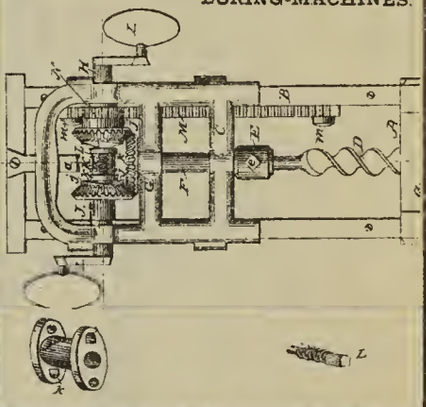
MANUFACTURE OF SOAP.

104,797, WILLIAM TUCKER.
BORING-MACHINES.



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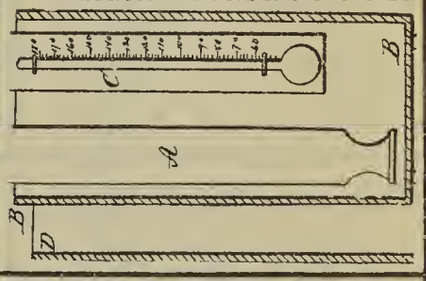
INSTRUMENT FOR TESTING OILS.



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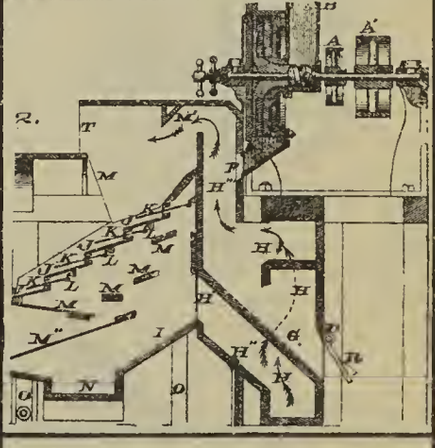
MACHINE FOR HULLING COTTON-SEED.



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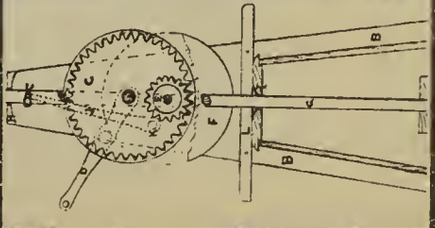

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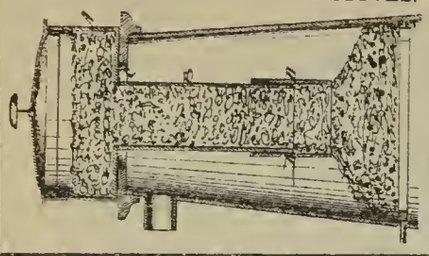
HEATING-STOVES.



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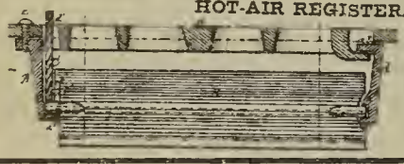
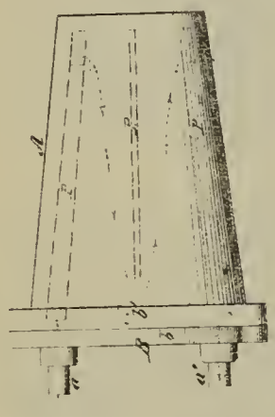
HOT-AIR REGISTER.



104,803 SUSPENDED

104,804, PETER L. WEIMER.
TWEER.



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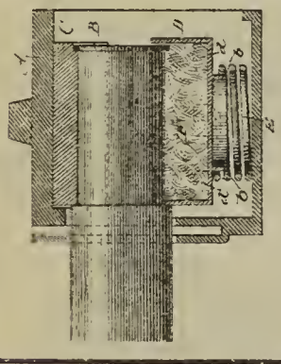
LUBRICATING JOURNAL-BEARINGS



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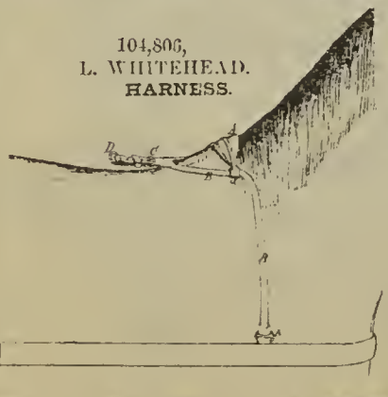
L. WHITEHEAD.
HARNESS.



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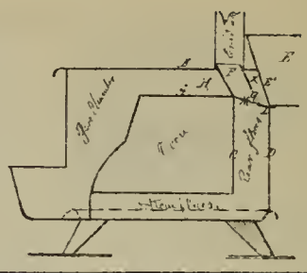
COOKING-STOVE.



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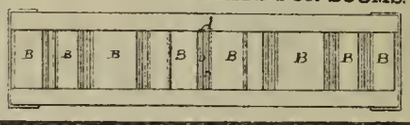

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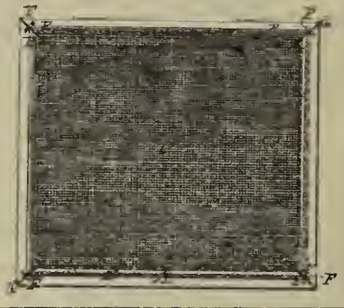
MOSQUITO-SCREEN FRAME.



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WASH-BOILER.

104,811, EMIL YOUNG.
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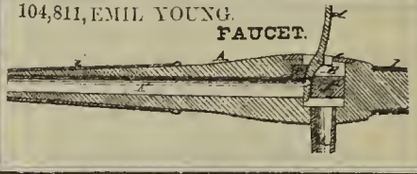

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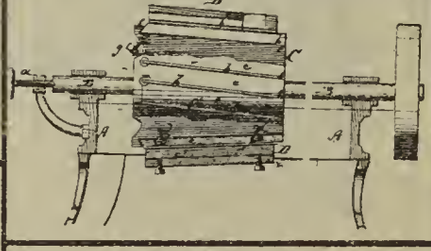
EMERY-SOAP FOR POLISHING AND CLEANSING.

104,813, ROBERT ALDRICH.
FLOCK-GRINDER.



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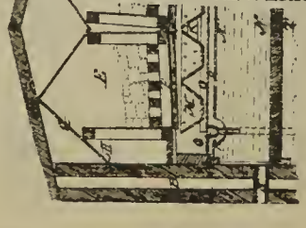
REFRIGERATORS FOR CONDENSING VAPORS FROM FERMENTING-VATS IN BREWERIES, &c



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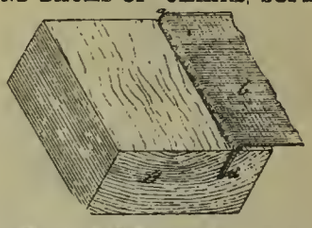
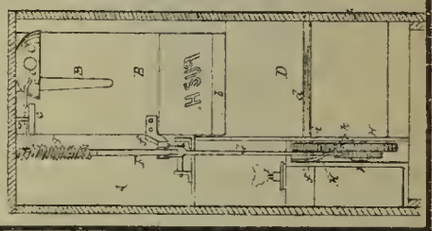
METHOD FOR SECURING THE SEATS AND BACKS OF CHAIRS, SOFAS, &c.



104,816 HENRY BARANGER.
FARE-BOXES FOR PASSENGER-CARS.



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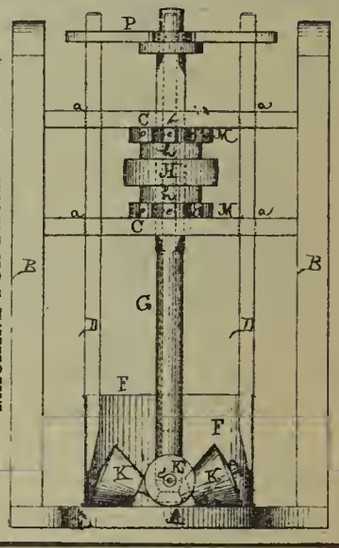
MACHINE FOR PACKING FLOUR, &c.



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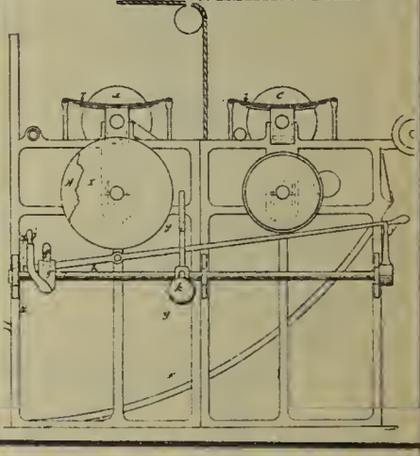
FREDERICK BATES.
MACHINE FOR SCOURING AND WASHING FABRICS



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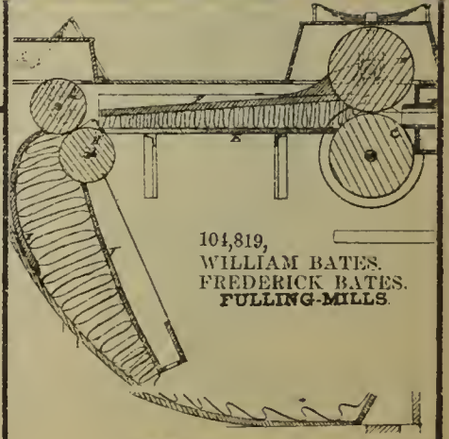
FULLING-MILLS.



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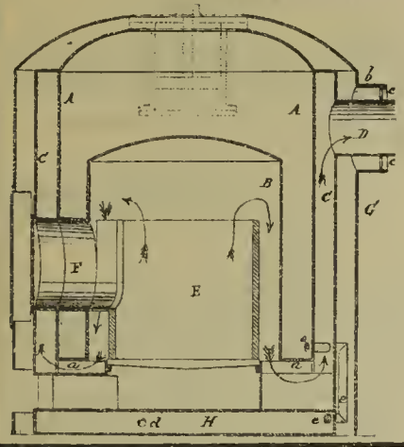
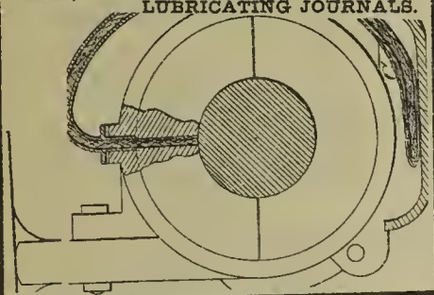
STEAM-GENERATORS



104,821. CHARLES BEAN.
LUBRICATING JOURNALS.



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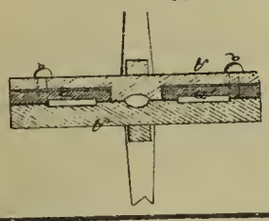
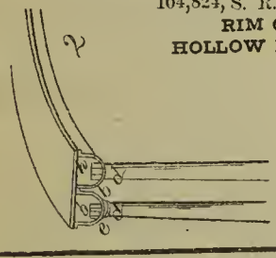
NORMAN S. BOARDMAN.
SPOON-MOLDS.



104,823. JAMES BRADY. DOOR-KEYS

104,824, S. R. BRYANT.
RIM OR FELLY.
HOLLOW METALLIC



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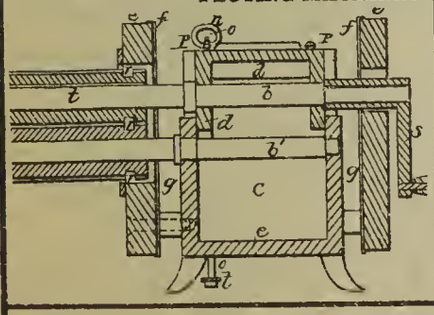

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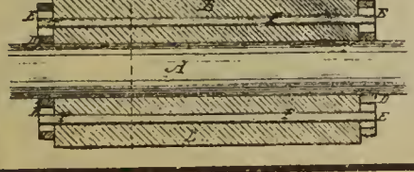
RUBBER ROLLER FOR WRINGERS, &c.



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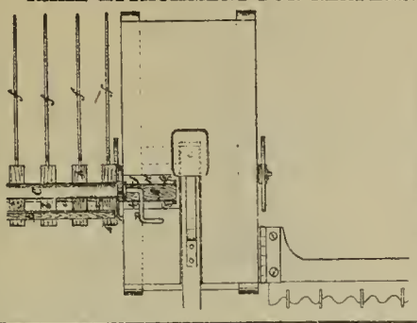
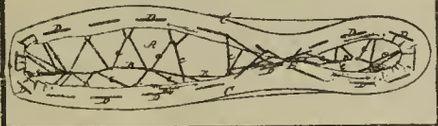
RAKE ATTACHMENT FOR REAPERS.



104,828. WILLIAM CHAMBERS. METHOD OF LASTING BOOTS AND SHOES



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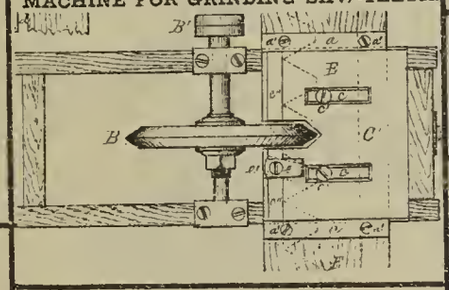
LUCAS C. CLARK.
TEA-POT HANDLE.

104,830, WM. CLEMSON.
MACHINE FOR GRINDING SAW-TEETH.



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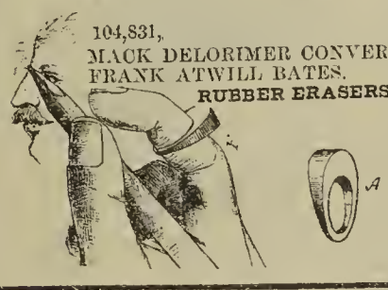
MACK DELORIMER CONVERSE.
FRANK ATWILL BATES.
RUBBER ERASERS.



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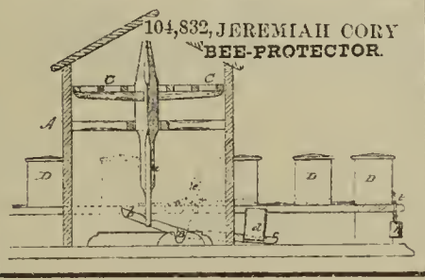
BEE-PROTECTOR.



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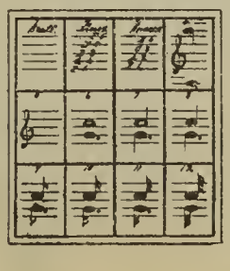
JOHN COSTELLO.
MUSIC-NOTE BLOCKS.



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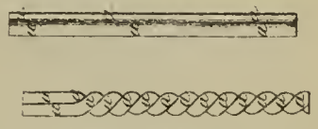
E. M. CRANDAL.
BROOM

104,835, PETER CRANS, JR. DENTAL PINS.



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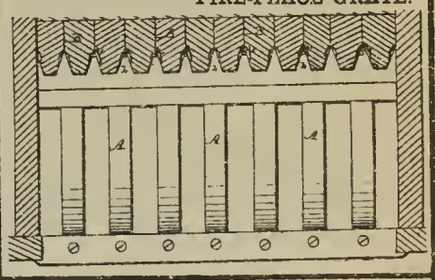
FIRE-PLACE GRATE.



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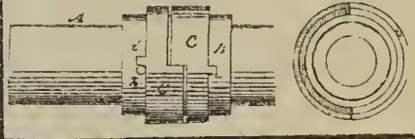
HOSE-COUPLINGS.



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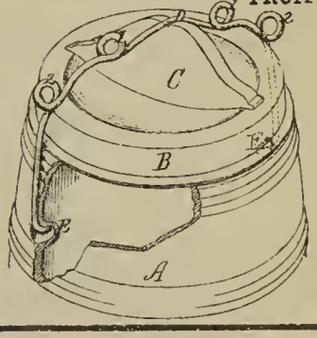
KEY-HOLE ESCUTCHEONS.

104,839, TIMOTHY EARLE.
FRUIT-JARS.



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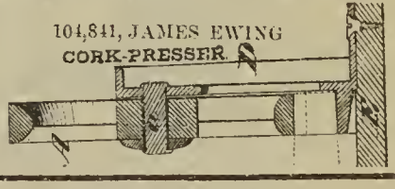
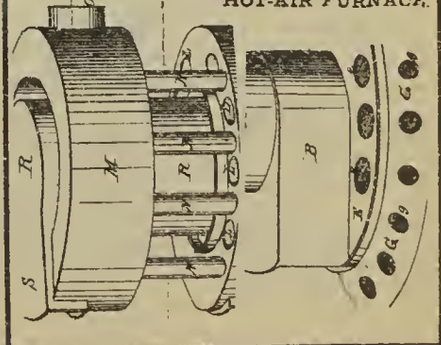
BREAST-PINS.

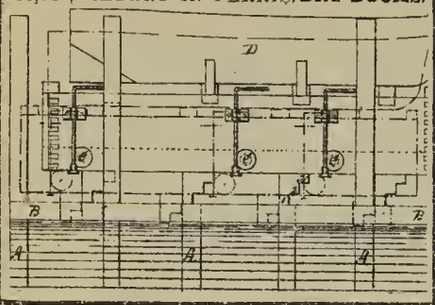
104,841, JAMES EWING
CORK-PRESSER.



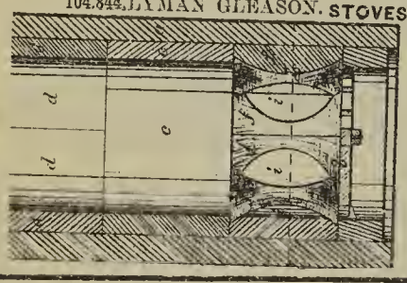
104,842, MICHEL G. FAGAN.
HOT-AIR FURNACE.



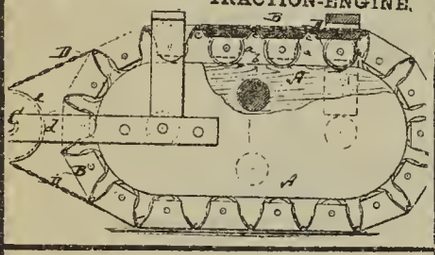
104,843, GILBERT H. FERRIS. DRY-DOCKS.



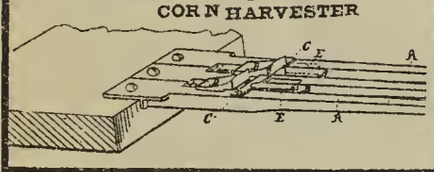
104,844, LYMAN GLEASON. STOVES.



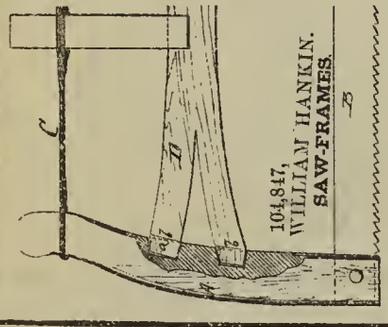
104,845, THOMAS F. HALL. TRACTION-ENGINE.



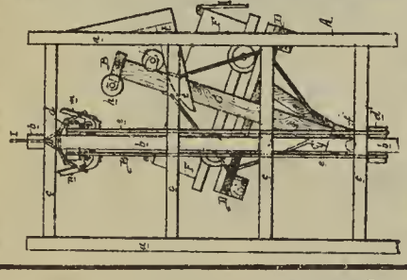
104,846 G. B. HAMLIN CORN HARVESTER



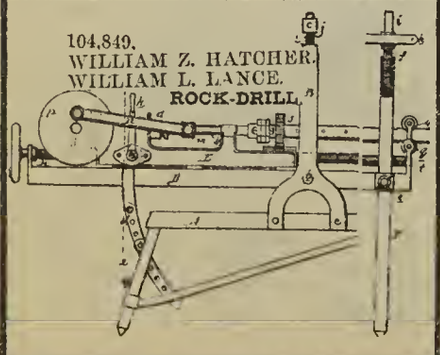
104,847, WILLIAM HANKIN. SAW-FRAMES.



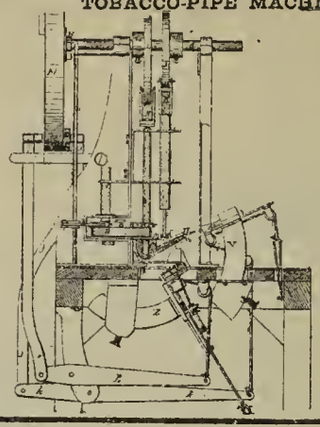
104,848, WILLIAM Z. HATCHER. SAFETY DUMPING-CAGE FOR MINES.



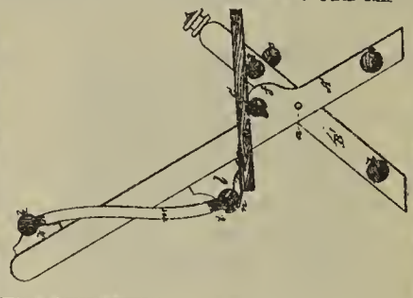
104,849, WILLIAM Z. HATCHER, WILLIAM L. LANCE. ROCK-DRILL.



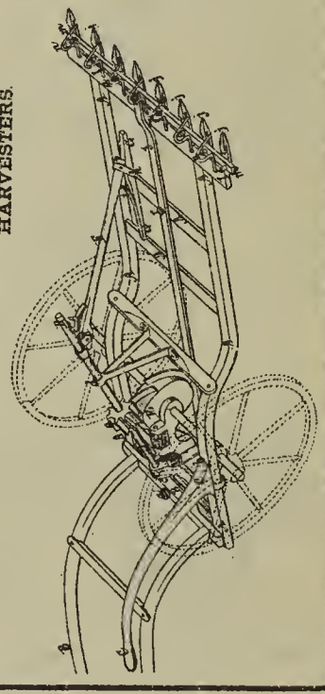
104,850, JOHN H. HOLLELY. TOBACCO-PIPE MACHINE.



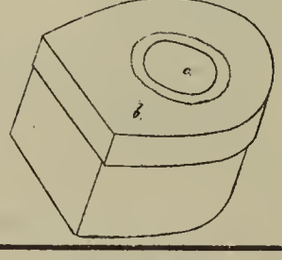
104,851, F. M. HOLMES. FOLDING CHAIR.



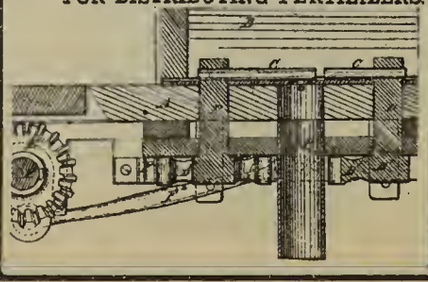
104,852, WM. B. JOHNS, WILLIAM J. READ. HARVESTERS.



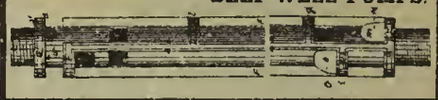
104,853, SALOMON KAUFMANN. PAPER-COLLAR BOX.



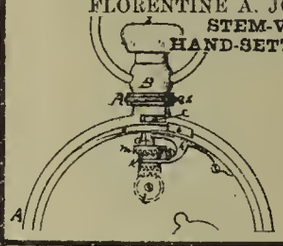
104,854, JOHN F. KELLER. MACHINE FOR DISTRIBUTING FERTILIZERS.



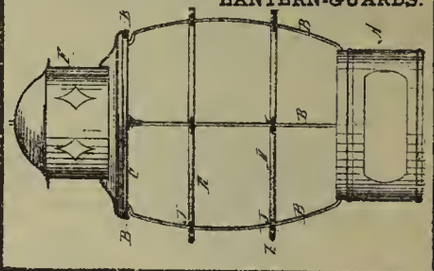
104,855, HENRY K. KENYON. DEEP-WELL PUMPS.



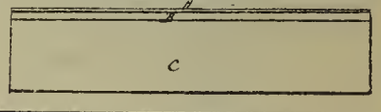
104,856, CHAS. L. KIDDER, FLORENTINE A. JONES. STEM-WINDING AND HAND-SETTING WATCH.



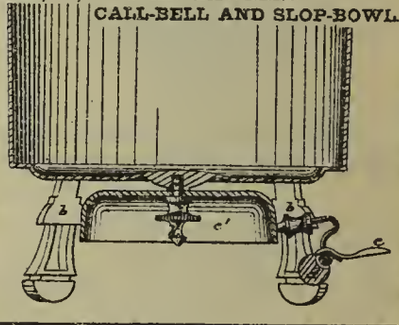
104,857, JOSEPH KINTZ. LANTERN-GUARDS.



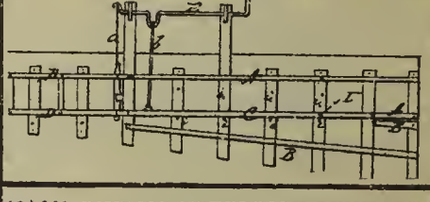
104,858, WM. H. KNIGHT. SECURING VENEERS TO WOOD.



104,859, NATHAN LAWRENCE. CALL-BELL AND SLOP-BOWL.



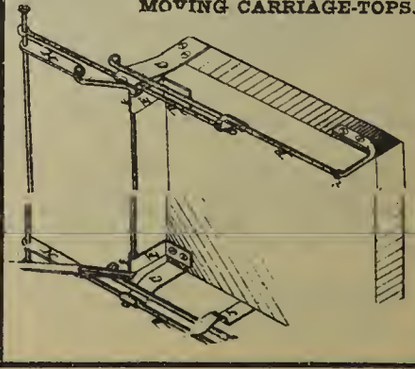
104,860, G. W. LEE, JNO. A. LAFONTAINE, A. L. HARRIS. RAILWAY SWITCH



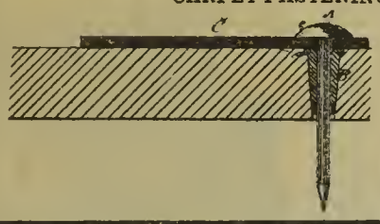
104,861. PHILIPP FREEDRICH LENHART. WATER-PROOF SWEAT-BANDS FOR HATS AND CAPS.

104,862, HENRY LOEWENBERG. COMPOUND FOR PRINTERS' INK.

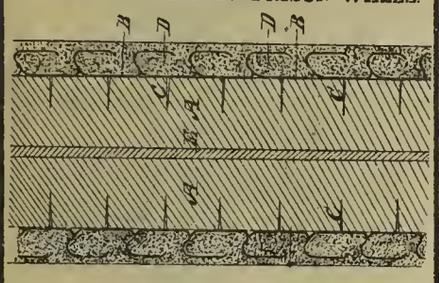
104,863, O. E. MALLORY MOVING CARRIAGE-TOPS.



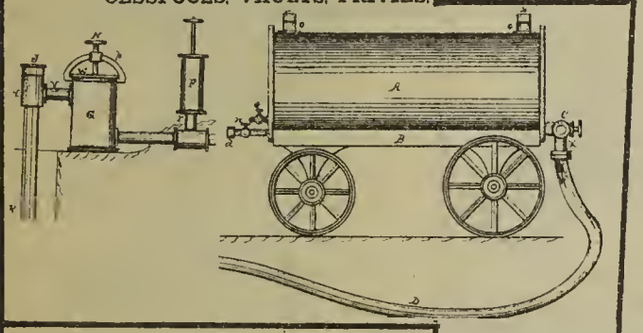
104,864, J. J. MÄRKI.
CARPET-FASTENING.



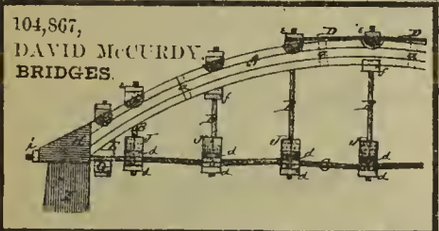
104,865, EDWIN MAY.
CONSTRUCTION OF PRISON WALLS.



104,866, WM. C. McCARTHY.
APPARATUS FOR CLEANING CESSPOOLS, VAULTS, PRIVIES.



104,867, DAVID McCURDY.
BRIDGES.



104,868, DAVID McCURDY.
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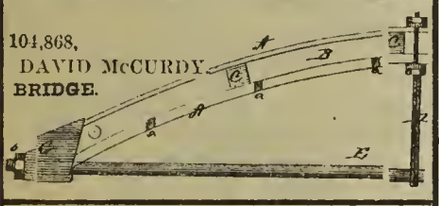
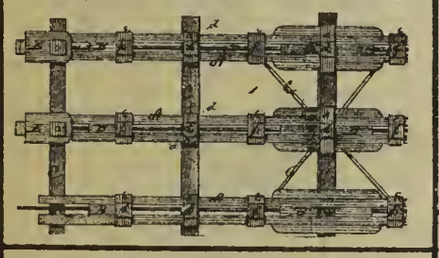
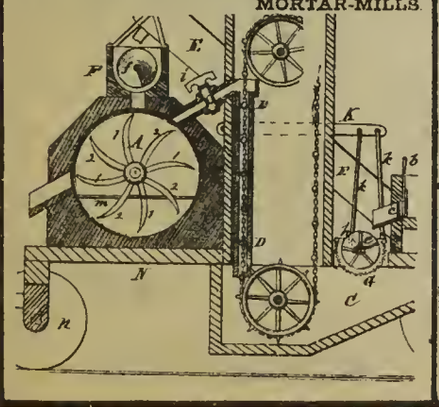
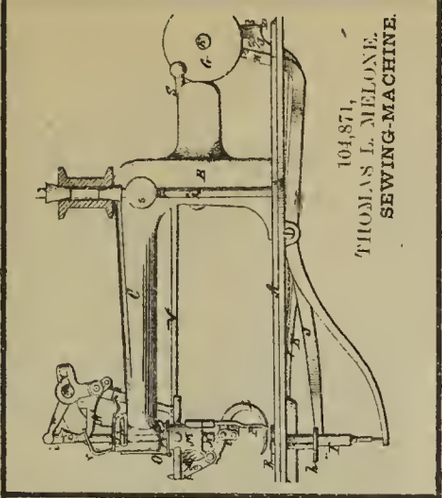


104,869, DAVID McCURDY BRIDGE.



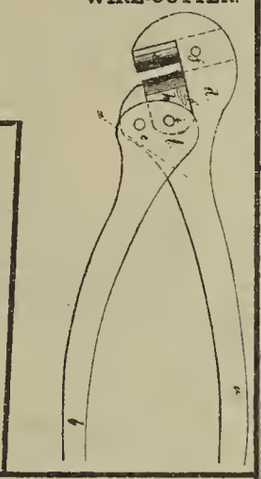
104,870, JOHN McINTYRE.
MORTAR-MILLS.





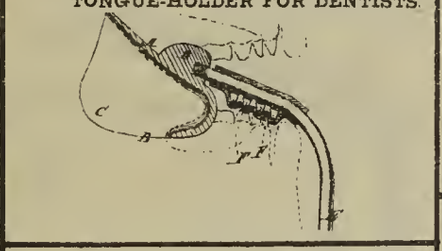
104,871, THOMAS L. MELONE.
SEWING-MACHINE.

104,872, EDGAR MURRAY.
WIRE-CUTTER.

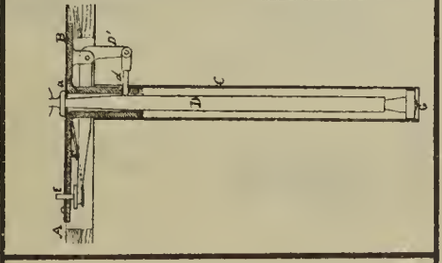


104,873, CHARLES MOTIER NES.
MANUFACTURE OF STEEL

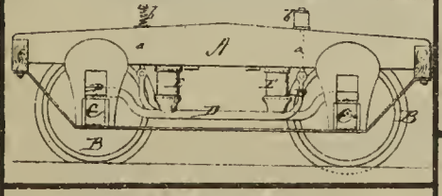
104,874, FRANCIS M. OSBORN.
TONGUE-HOLDER FOR DENTISTS.



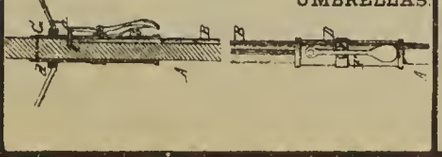
104,875, JOSIAH OOTHOUDT.
HITCHING-POST.



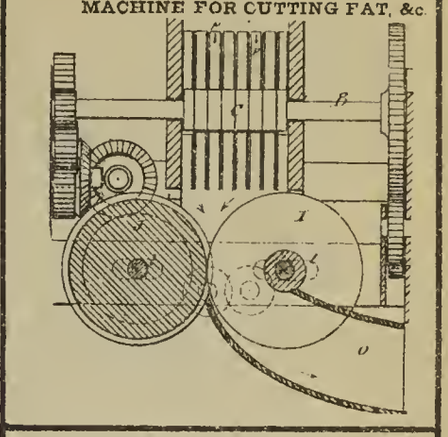
104,876, ADDISON OVERBAGH.
EQUALIZING-BARS FOR RAILWAY CAR-TRUCKS.



104,877, THOMAS B. PENICKS.
JOSEPH HEFFLY.
UMBRELLAS.



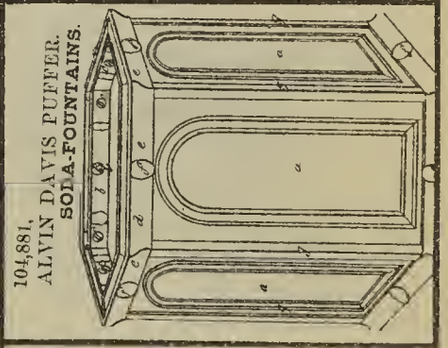
104,878, ADOLPH PFAFF.
MACHINE FOR CUTTING FAT, &c.



104,879, LUKE A. PLUMB. COMPOSITION AMALGAM FOR FILLING TEETH.

104,880, ALVIN DAVIS PUFFER.
FAUCETS.

104,881, ALVIN DAVIS PUFFER.
SODA-FOUNTAINS.



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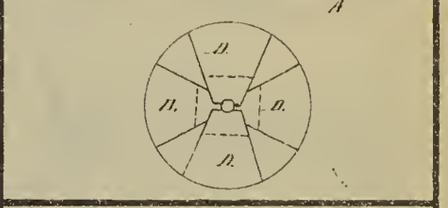
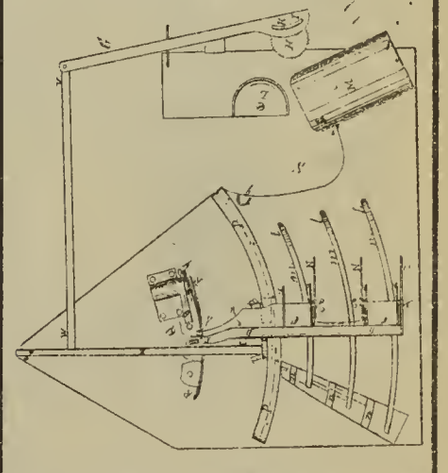
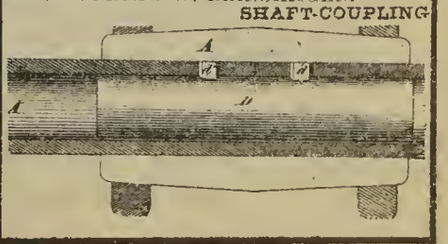
SORGHUM-STRIPPER.

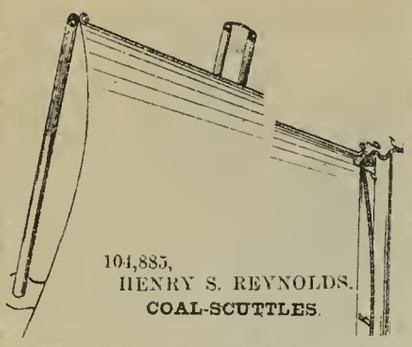


104,883, HIRAM A. REID.
HARVESTER ATTACHMENT FOR RAKING AND BINDING GRAIN

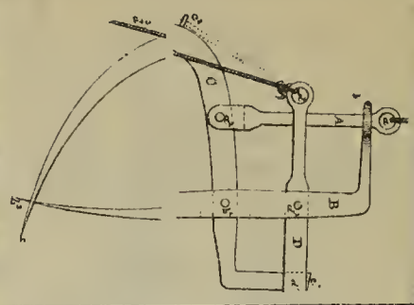


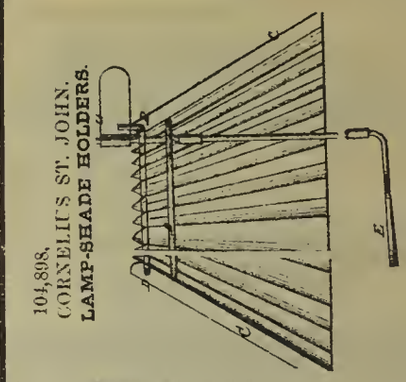
104,884, PETER W. REINSHAGEN.
SHAFT-COUPLING





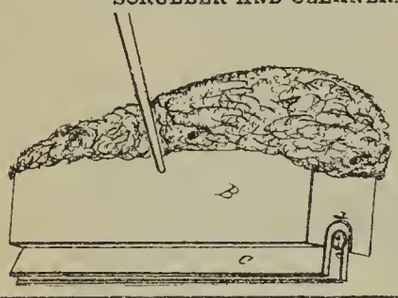
104,885,
HENRY S. REYNOLDS.
COAL-SCUTTLES.

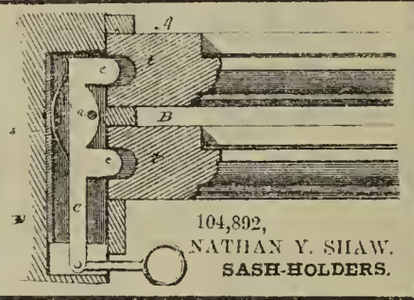




104,898,
CORNELIUS ST. JOHN.
LAMP-SHADE HOLDERS.

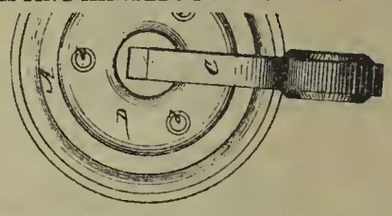
104,886, WILLIAM G. RHODEHAMEL.
SCRUBBER AND CLEANER.



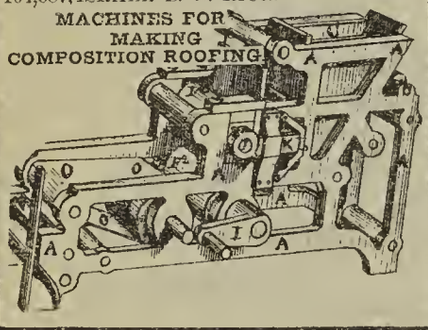


104,892,
NATHAN Y. SHAW.
SASH-HOLDERS.

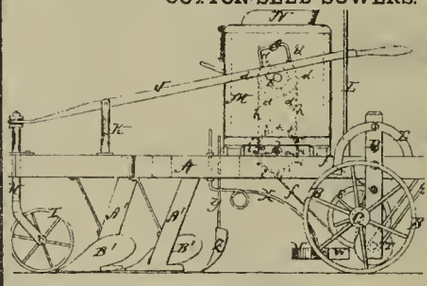
104,899, THOS. M. TAYLOR.
LIFTING-HANDLES FOR COFFINS, &c



104,887, ISRAEL L. G. RICE.
MACHINES FOR MAKING COMPOSITION ROOFING.

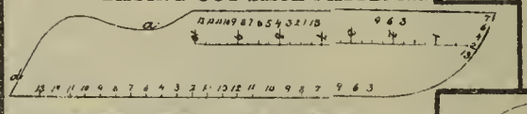


104,893, JOSEPH SHEARER.
COTTON-SEED SOWERS.

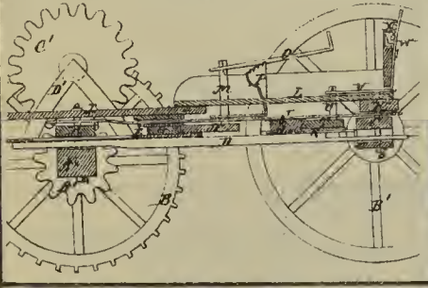


104,900,
ANDREW THALHOFER.
DEVICE FOR OPERATING AWNINGS.

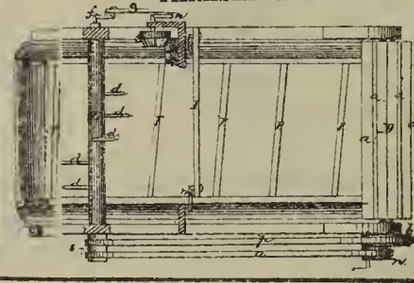
104,894, WILLIAM SHEILL. SCALE FOR LAYING OUT SHOE-PATTERNS.

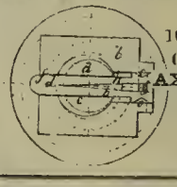


104,888, IRA A. SABIN.
STEAM ROAD-VEHICLES.



104,895, D. F. SLANE.
FEED-ATTACHMENT FOR THRASHING-MACHINES.





104,901,
CHAUNCEY THOMAS.
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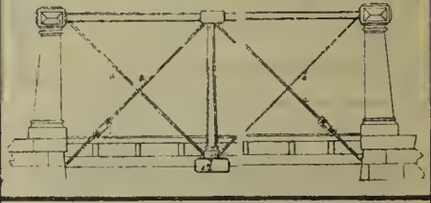
104,902, L. E. TRUESDELL.
IRON BRIDGES.



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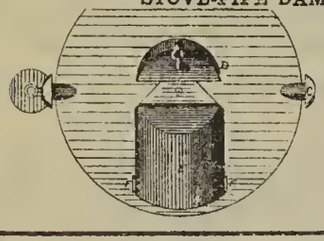
STOVE-PIPE DAMPER.



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GEORGE C. BELT.
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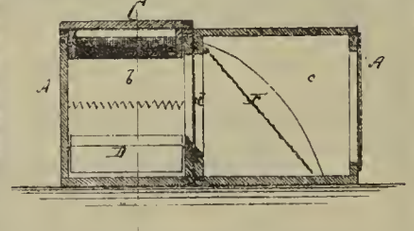

104,903,
E. TURNER.
TASSEL-HOOKS.

104,890, WILLIAM EDMOND SCOTT.
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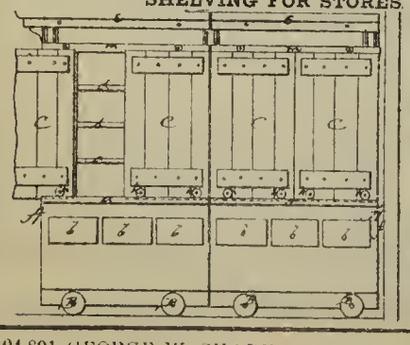
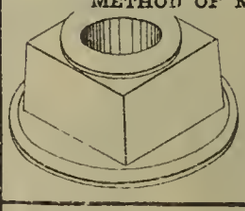
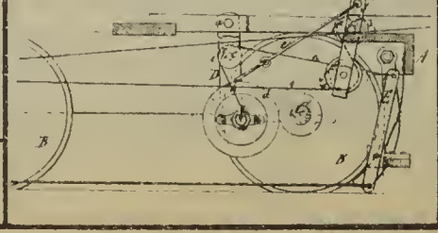
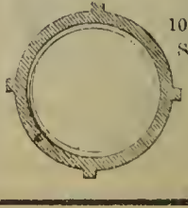


104,904, SAMUEL VANSTONE.
METHOD OF MANUFACTURING AXLE-NUTS.



104,897, JOSEPH STEGER. CAR-BRAKES.





104,905,
SAMUEL VANSTONE.
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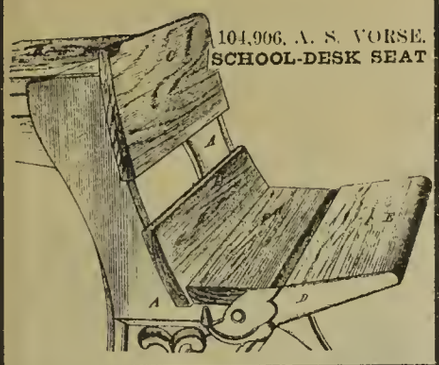
104,891, GEORGE W. SHADE.
HORSE HAY-FORKS

104,906, A. S. VORSE.
SCHOOL-DESK SEAT



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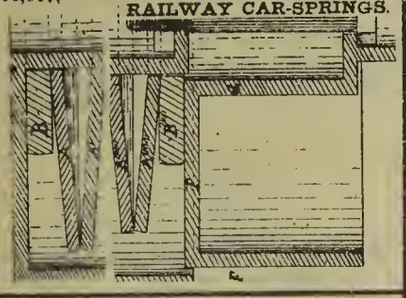
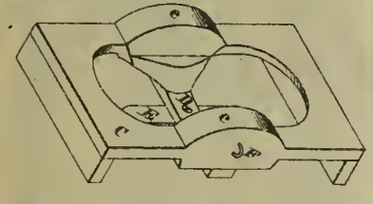
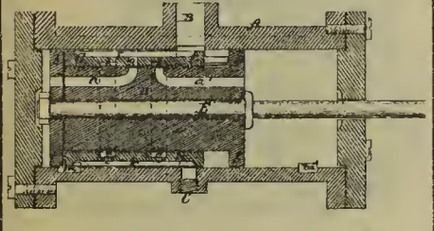
RAILWAY CAR-SPRINGS.



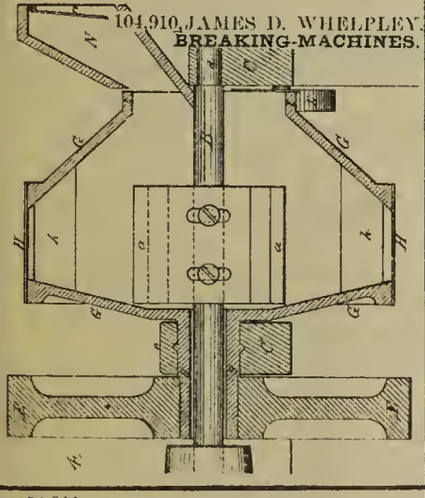
104,908, JOHN G. WEAVER, JR.
MANUFACTURE OF CAST PIPE-ELBOWS.



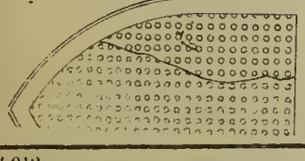
104,909, GEORGE WEINMAN.
PISTON-HEAD AND VALVE.



104,910, JAMES D. WHELPLEY.
BREAKING-MACHINES.



104,911, ALEXANDER WHITE.
WINDOW FOR COAL-STOVE.



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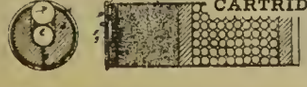
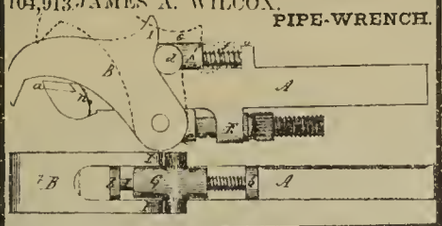
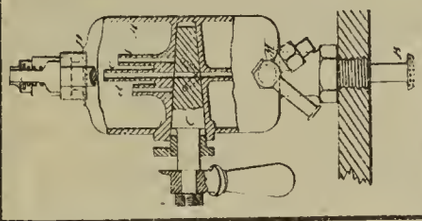
NATHANIEL GILBERT WHITMORE.
CARTRIDGES.



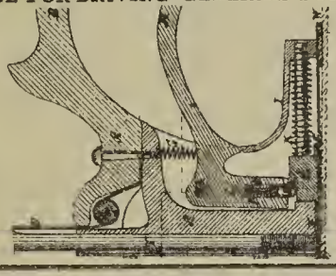
104,913, JAMES A. WILCOX.
PIPE-WRENCH.



104,914, HENRY WILSON.
IMPERMEATORS FOR STEAM-ENGINES



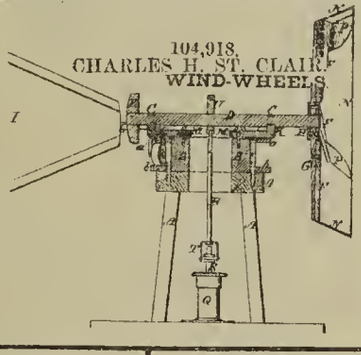
104,915, ALFRED WOODWORTH.
EDWIN W. WARREN.
TOOL FOR DRIVING GLAZIERS' POINTS.



104,916. A. B. TRIPLER.
PRESERVING WOOD.

104,917. A. B. TRIPLER.
PRESERVING WOOD FOR RAILROAD TIES AND FOR OTHER PURPOSES.

104,918.
CHARLES H. ST. CLAIR.
WIND-WHEELS.



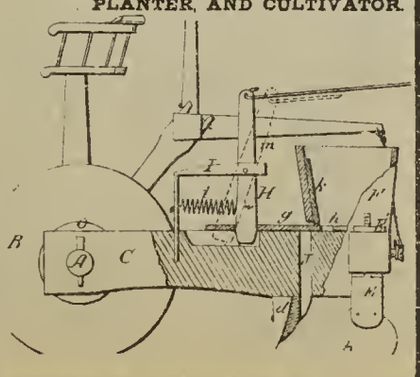
STRAWBERRY HULLER.

104,919
J. W. D. PATTEN

4,044, JOHN AMICK.
SPIDER ARCH FOR BURNING BAGASSE.

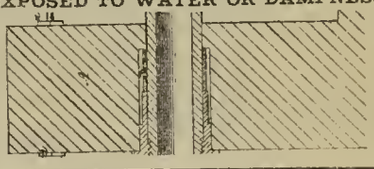
4,045, EDWARD H. ASHCROFT.
NON-CORROSIVE VALVE-SEATS.

4,046, ELIAS BARTO. CORN-MARKER, PLANTER, AND CULTIVATOR.

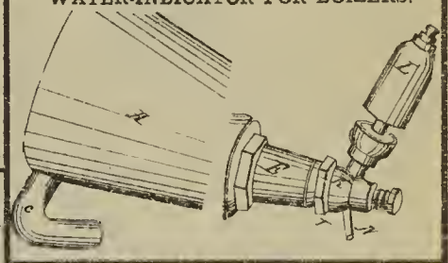


4,047, JOSEPH C. DU BOIS.
COTTON-GINS.

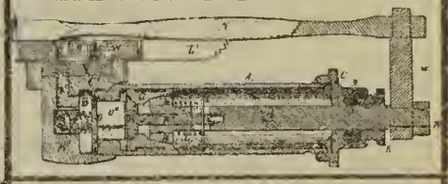
4,048, C. GODFREY AND R. LIGHTHALL.
PREVENTING THE CORROSION OF IRON EXPOSED TO WATER OR DAMPNESS.



4,049, JOHN D. LYNDE.
WATER-INDICATOR FOR BOILERS.

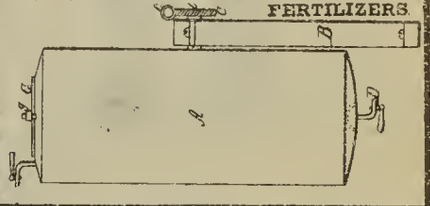


4,050, HENRY W. PUTNAM.
APPARATUS FOR FILLING BOTTLES.

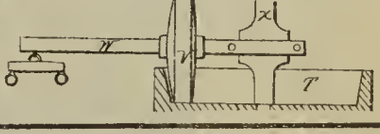


4,051, ABNER D. STRONG.
VINEGAR APPARATUS.

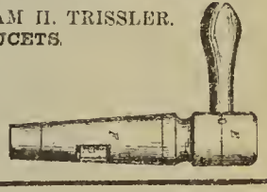
4,052, DIRK ADREAAN TER HOEVEN.
FERTILIZERS.



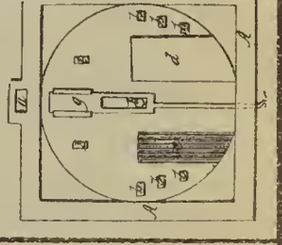
4,053, DIRK ADREAAN TER HOEVEN.
MANUFACTURE OF FERTILIZERS.



4,054, WILLIAM H. TRISSLER.
FAUCETS.



4,055, J. VALE.
OVEN.



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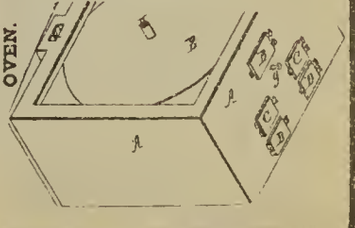

ILLUSTRATIONS OF PATENTS

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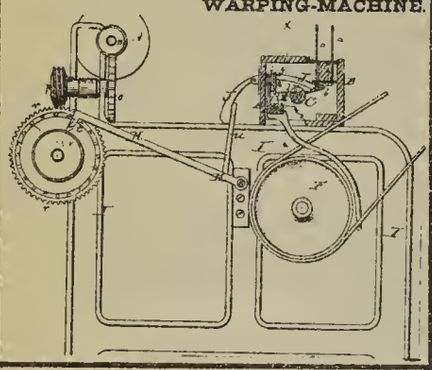
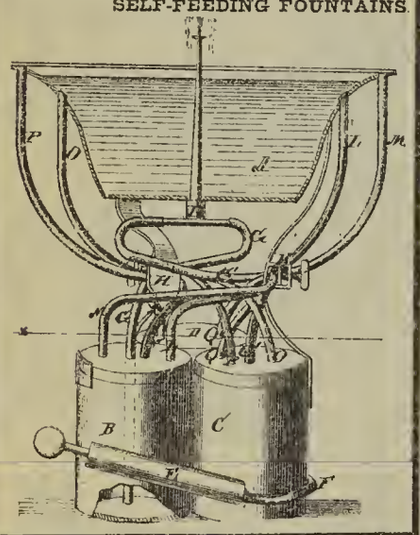
JULY 5, 1870.

104,920, LEVI ABBOTT.
WARPING-MACHINE.



104,921, E. AMENDE.
SELF-FEEDING FOUNTAINS.



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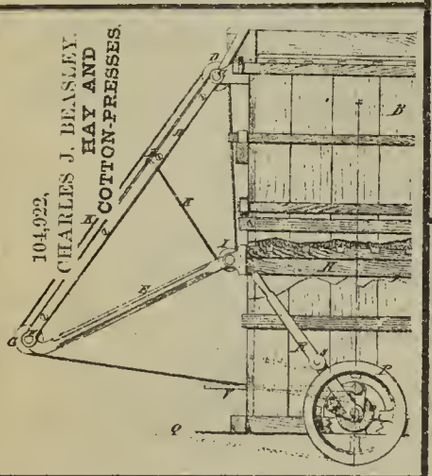
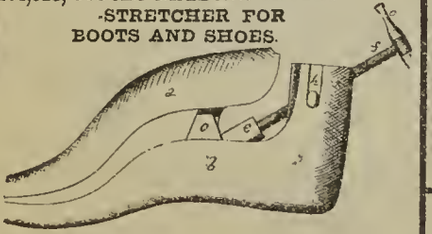
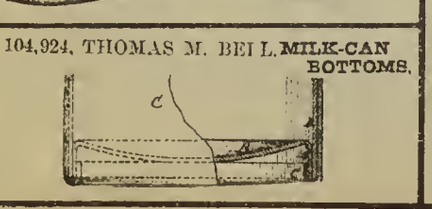
HAY AND COTTON-PRESSES.



104,923, MOSES BELDING INSTEP-STRETCHER FOR BOOTS AND SHOES.

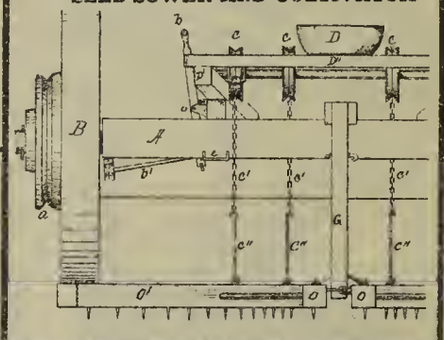


104,924, THOMAS M. BELL. MILK-CAN BOTTOMS.

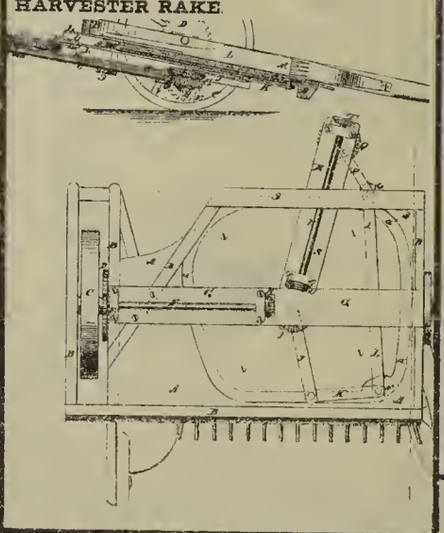


104,925.
GEO. A. BLAKE.
W. B. TAYLOR.
HEATING-STOVES.

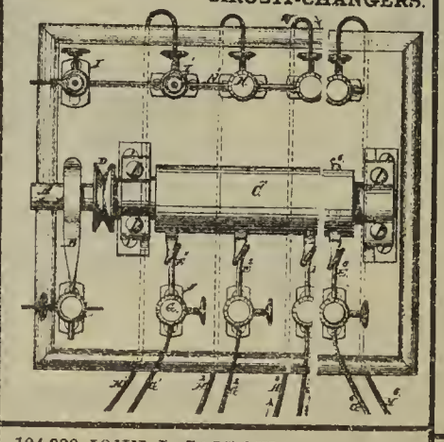
104,926, GEORGE BRADLEY.
SEED-SOWER AND CULTIVATOR.



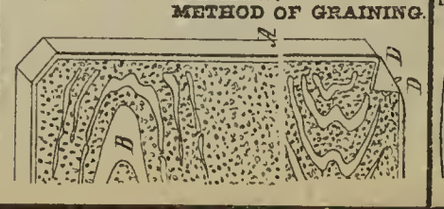
104,927. C. B. BROWN.
HARVESTER RAKE.



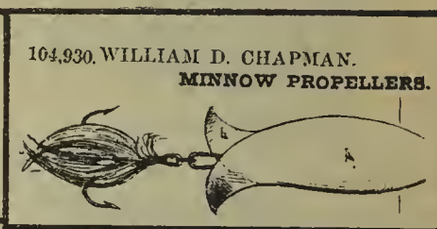
104,928, WATKINS LEIGH BURTON.
CIRCUIT-CHANGERS.



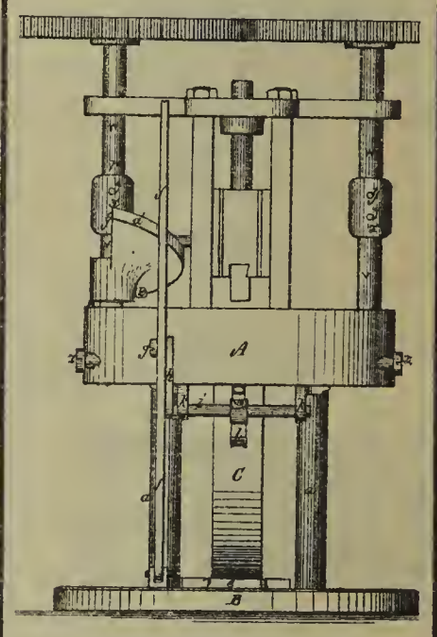
104,929, JOHN J. CALLOW.
METHOD OF GRAINING.



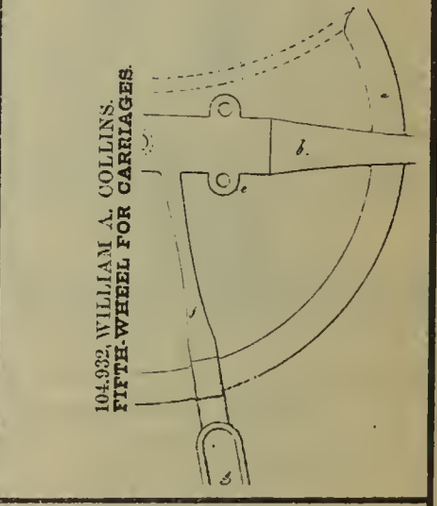
104,930, WILLIAM D. CHAPMAN.
MINNOW PROPELLERS.



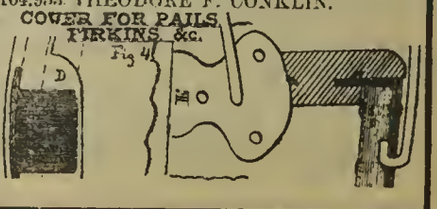
104,931, AURY GATES COES.
MACHINE FOR FORGING THE HEADS OF WRENCHES



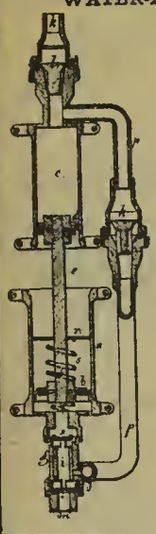
104,932, WILLIAM A. COLLINS.
FIFTH-WHEEL FOR CARRIAGES.



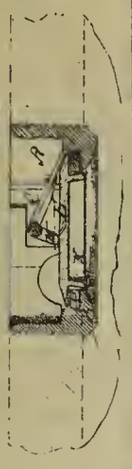
104,933, THEODORE F. CONKLIN.
COVER FOR PAILS, FIRKINS, &c.



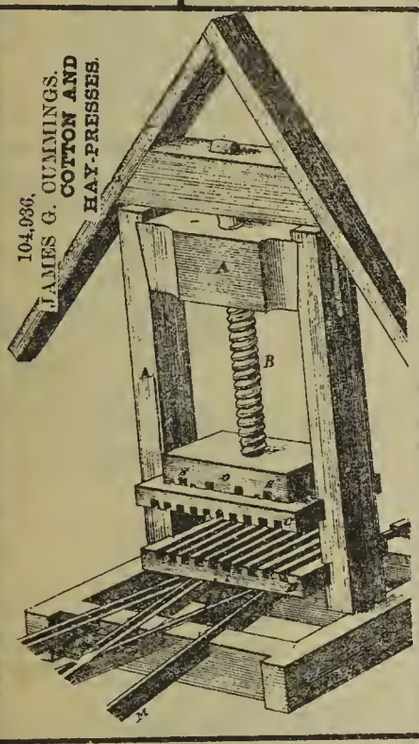
104,934, H. H. CRAIGIE. AUTOMATIC WATER-ELEVATING APPARATUS.



104,935, DAVID M. CUMMINGS. BUNGS.

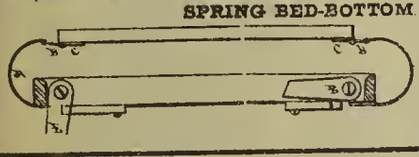


104,936, JAMES G. CUMMINGS. COTTON AND HAY-PRESSES.

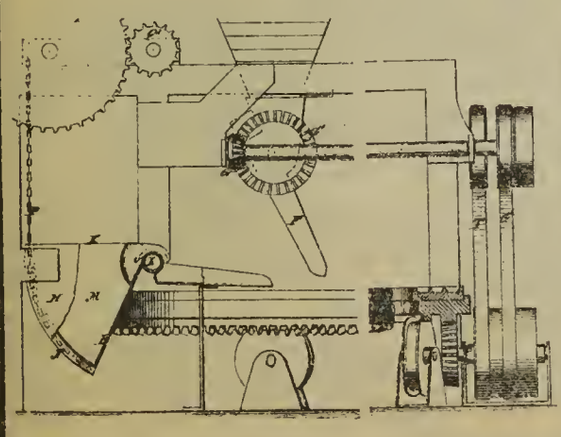


104,937, THOS. CUMMINGS. COMPOSITION FOR PHOTOGRAPHIC PURPOSES.

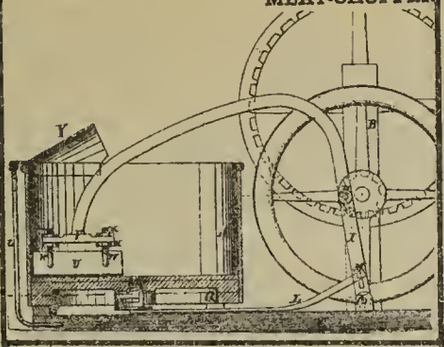
104,938, LEWIS CUTLER. SPRING BED-BOTTOM.



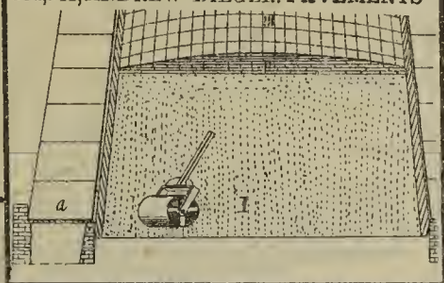
104,939, HENRY DAVIES. MANUFACTURE OF IRON BY THE ELLERSHAUSEN PROCESS.



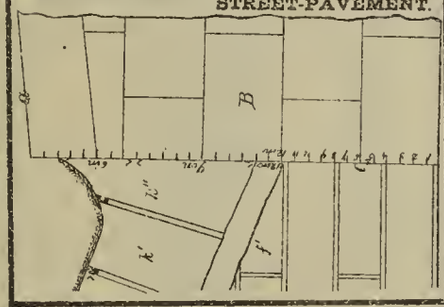
104,940, JAMES H. DE POE. MEAT-CHOPPER.



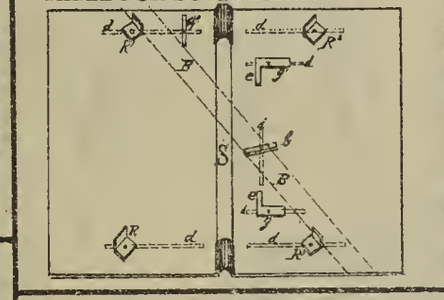
104,941, ANDREW DILGER. PAVEMENTS.



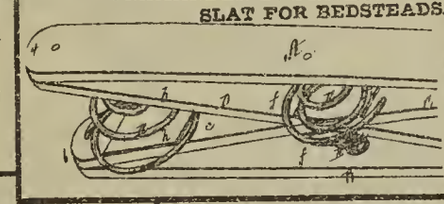
104,942, ANDREW DILGER. STREET-PAVEMENT.



104,943, JOSEPH DILL. TABLE FOR DOVETAILING-MACHINE.

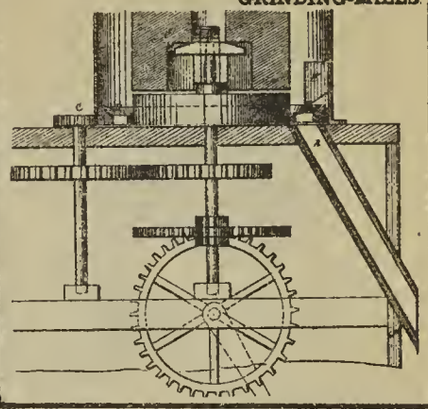


104,944, ALONZO S. DRISKO. ORAMANDER H. DRISKO. SLAT FOR BEDSTEADS.

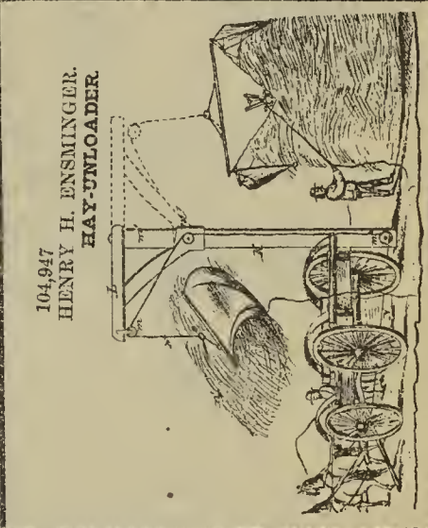


104,945, WILLIAM W. BASTMAN. FRANCIS B. MARDEN. JARS FOR WELL-DRILLS.

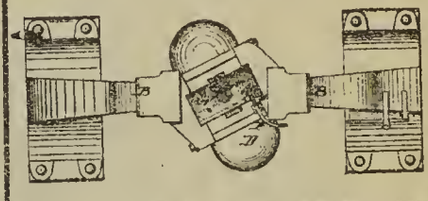
104,946, SAMUEL T. ECK. GRINDING-MILLS.



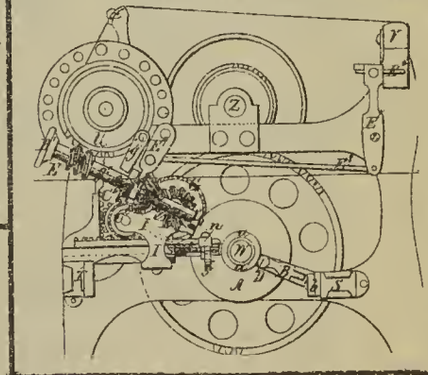
104,947, HENRY H. ENSMINGER. HAY-UNLOADER.



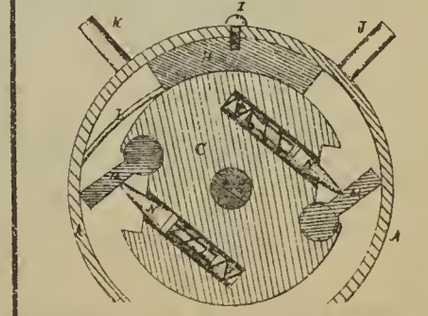
104,948, OSCAR C. FERRIS. FREDK. B. MILES. STEAM-HAMMERS.



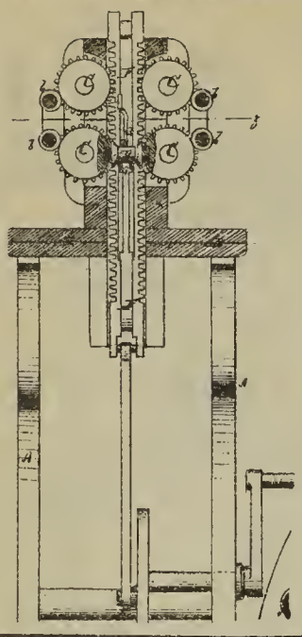
104,949, LEWIS N. FLETCHER. IRA M. PAGE. LET-OFF MECHANISM FOR LOOMS.



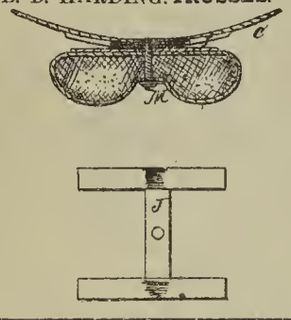
104,950, WILLARD M. FULLER. WATER-METERS.



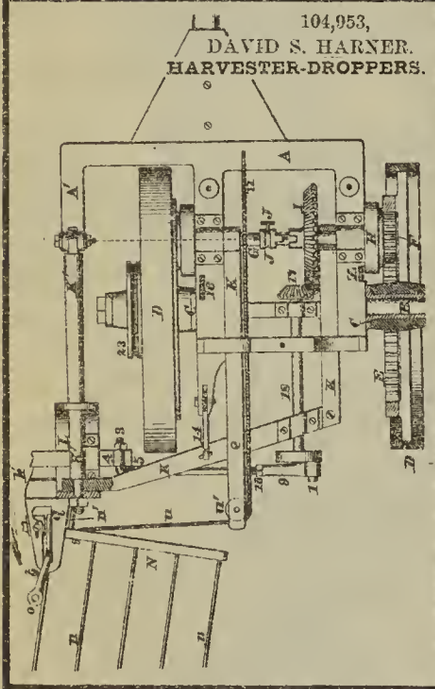
104,951. G. HALL, JR.
MACHINE FOR PRINTING LABELS ON SPOOLS.



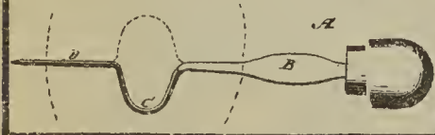
104,952, E. B. HARDING. TRUSSES.



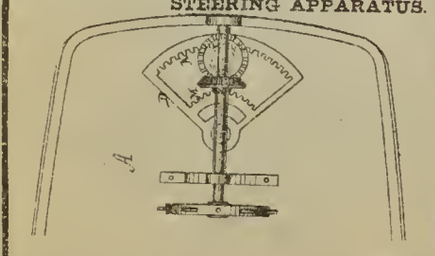
104,953,
DAVID S. HARNER.
HARVESTER-DROPPERS.



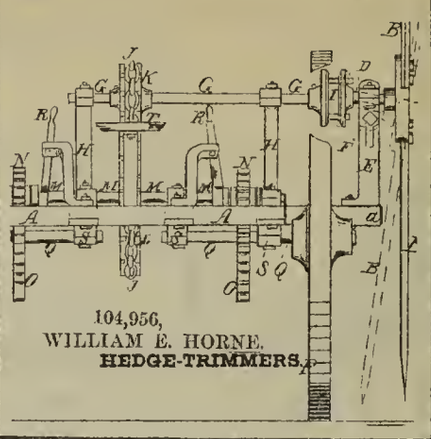
104,954, ALFORD L. HARRIS.
FRUIT-CORING KNIFE.



104,955, CHARLES M. HAYDEN.
STEERING APPARATUS.

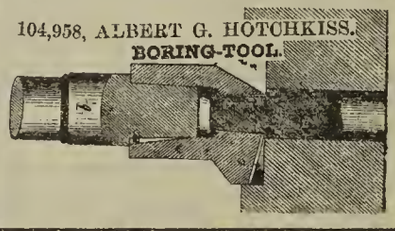


104,956,
WILLIAM E. HORNE.
HEDGE-TRIMMERS.

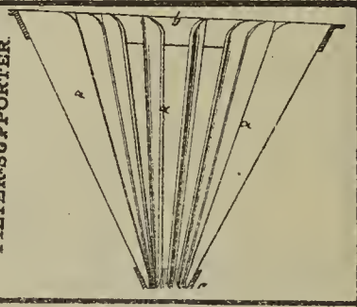


104,957, JAMES HORNER.
METHOD OF ROLLING METAL BARS.

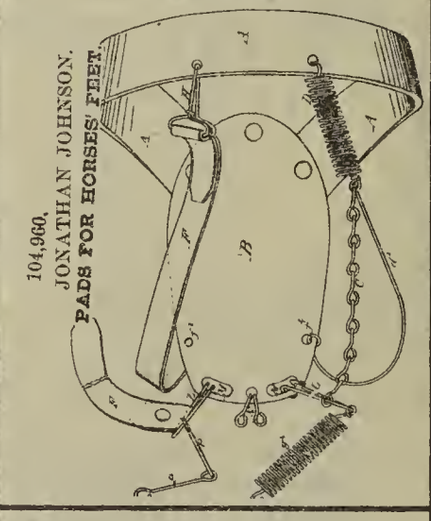
104,958, ALBERT G. HOTCHKISS.
BORING-TOOL.



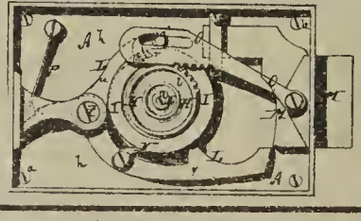
104,959,
FRANK C. HUGHES.
FILTER-SUPPORTER.



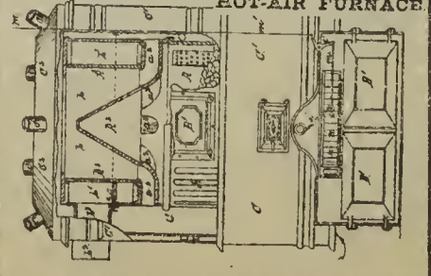
104,960,
JONATHAN JOHNSON.
PADS FOR HORSES' FEET.



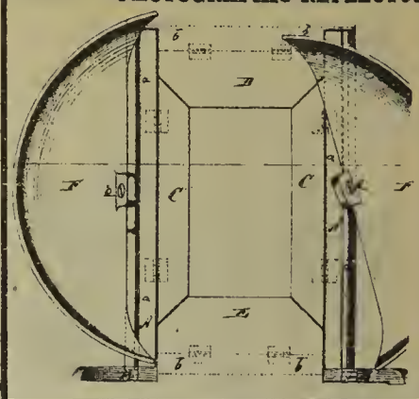
104,961, WILLIAM KOCK.
PERMUTATION LOCKS.



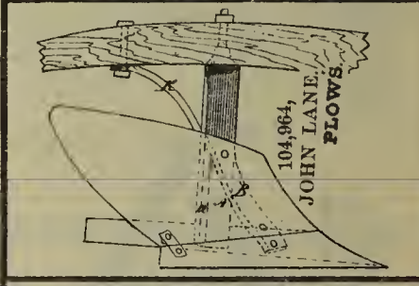
104,962, BENJAMINE S. KOLL.
HOT-AIR FURNACE.



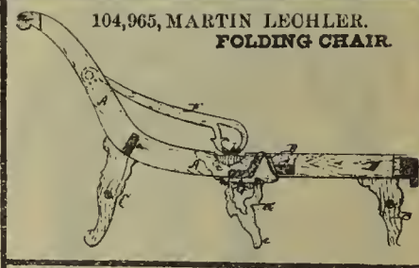
104,963, W. KURTZ.
PHOTOGRAPHIC REFLECTOR.



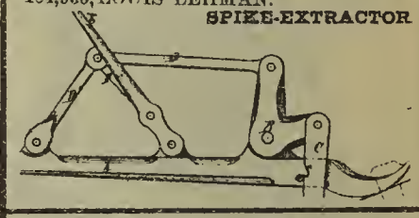
104,964,
JOHN LANE.
PLOWS.



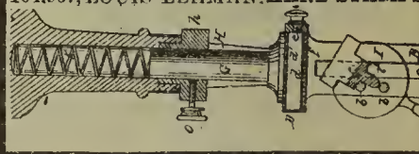
104,965, MARTIN LECHLER.
FOLDING CHAIR.



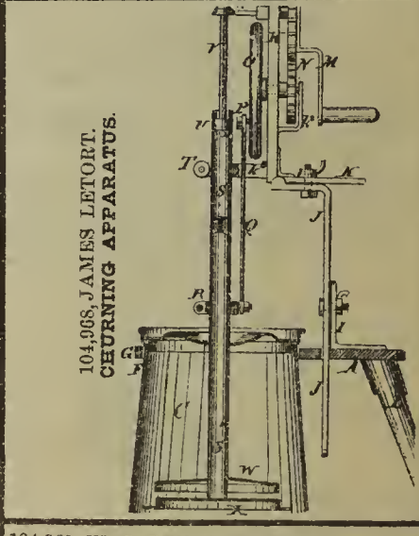
104,966, LOUIS LEHMAN.
SPIKE-EXTRACTOR.



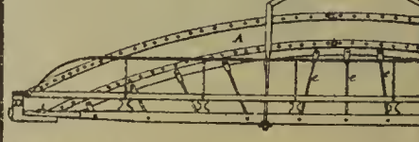
104,967, LOUIS LEHMAN. HAND-STAMPS.



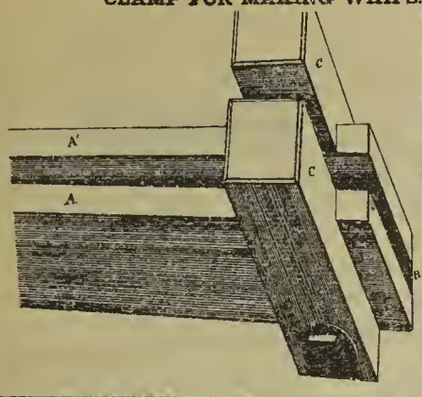
104,968, JAMES LETORT.
CHURNING APPARATUS.



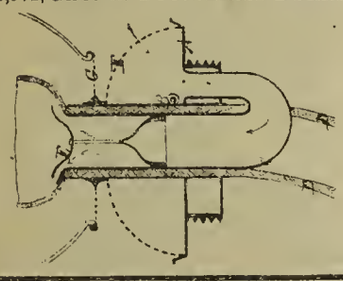
104,969, W. S. LEVAKE.
TUBULAR-ARCHED BRIDGES.



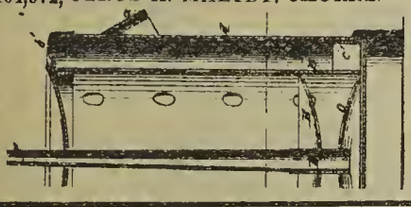
104,970, JUSTUS P. LUTHER.
SOLON K. BUCK.
CLAMP FOR MAKING WHIPS.



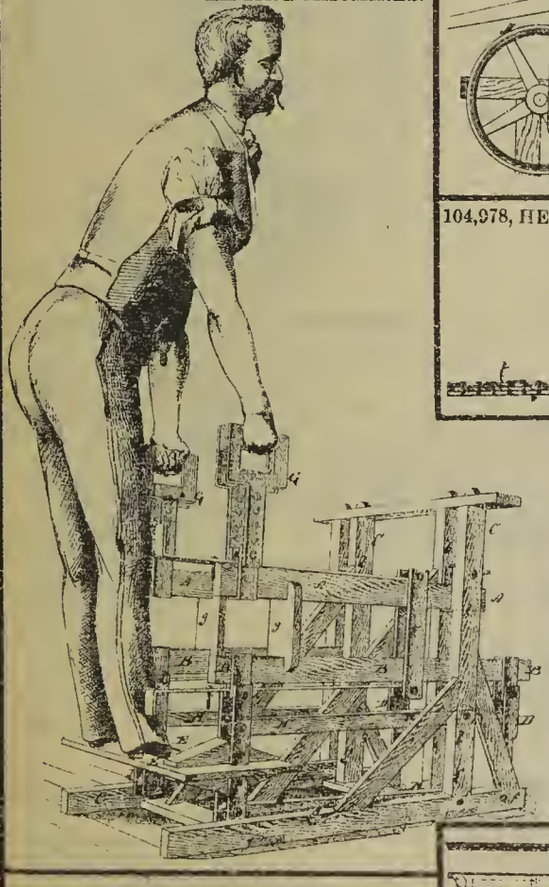
104,971, GEO. R. LYON. **LAMP-BURNERS.**



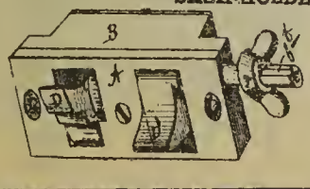
104,972, CYRUS A. MALTBY. **CHURNS.**



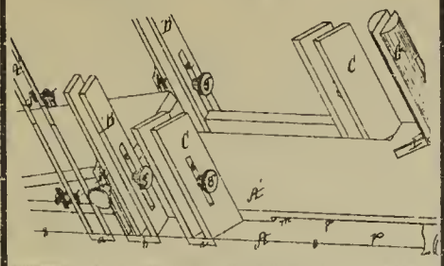
104,973, CHARLES HOLBROOK MANN.
LIFTING-MACHINES.



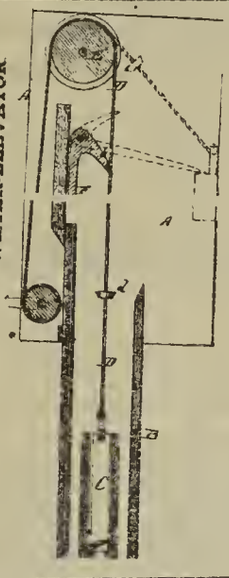
104,974, ALFRED C. MANNING.
SASH-HOLDERS.



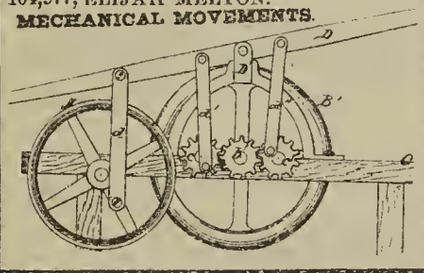
104,975, DANIEL McALLASTER.
MITER-BOXES AND MITER-SAWS.



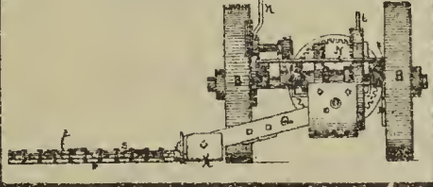
104,976, MOSES S. McSWAIN.
WATER-ELEVATOR.



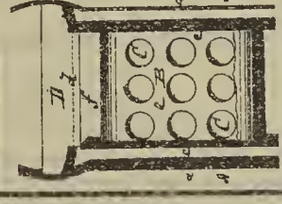
104,977, ELIJAH MELTON.
MECHANICAL MOVEMENTS.



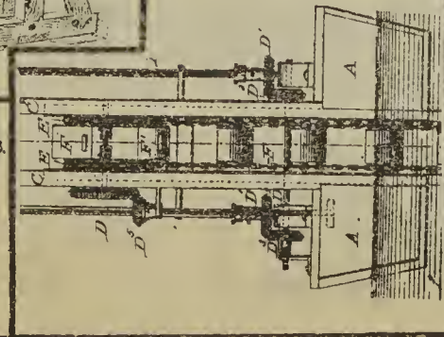
104,978, HENRY MEWES. **HARVESTERS.**



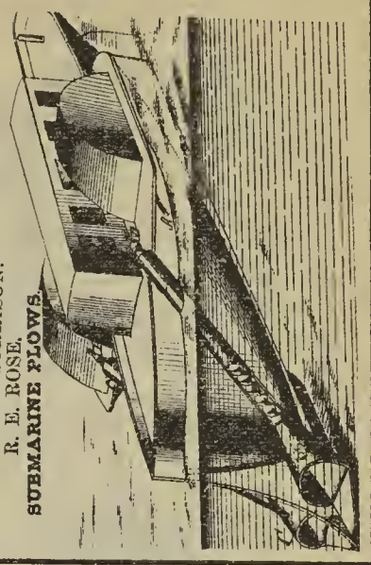
104,979, JOSEPH A. MILLER.
STEAM-GENERATOR.



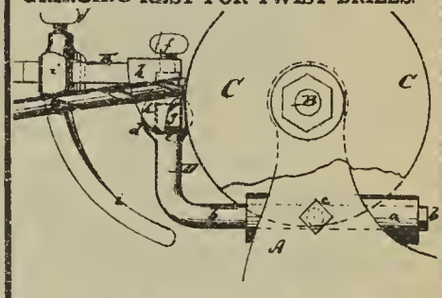
104,980, GOVE MITCHELL.
DREDGING-MACHINES.



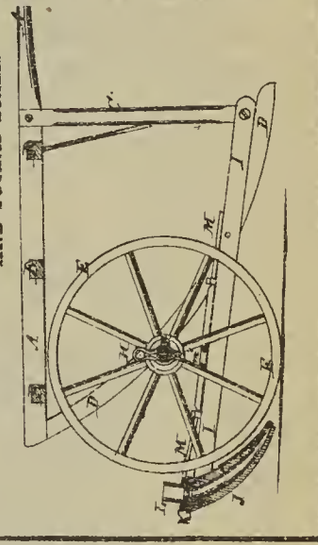
104,981, AMOS MORRISON.
R. E. ROSE.
SUBMARINE PLOWS.



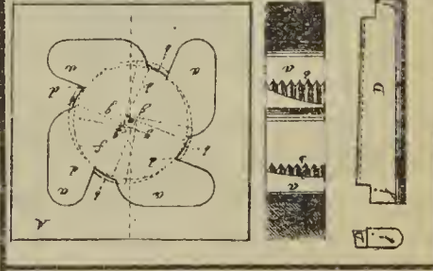
104,982, STEPHEN A. MORSE.
GRINDING-REST FOR TWIST DRILLS.



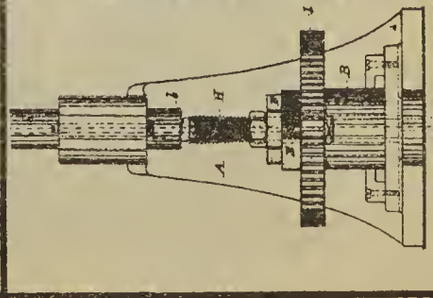
104,983, ALBERT M. NEWLAND.
COMBINED CART, WHEELBARROW, AND TURNIP-DRILL.



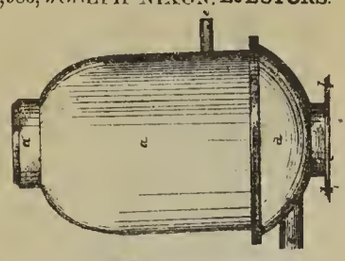
104,984, WILLIAM NEWSHAM.
TAP FOR AND MODE OF CUTTING DIES.



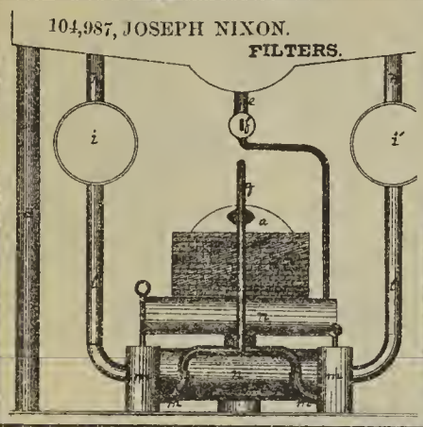
104,985, WILLIAM NEWSHAM.
MACHINE FOR CUTTING DIES.



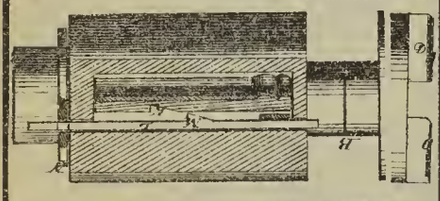
104,986, JOSEPH NIXON. EJECTORS.



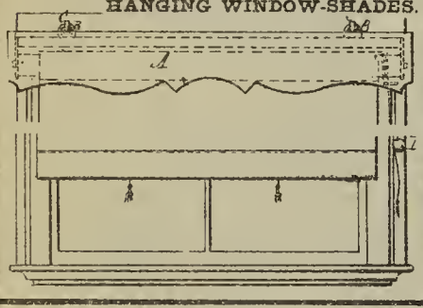
104,987, JOSEPH NIXON. FILTERS.



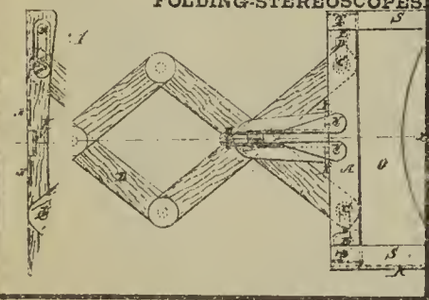
104,988, BENJAMIN BROOKS OCKINGTON. ANDREW J. OCKINGTON. ARBOR FOR TURNING CLOTHES-PINS.



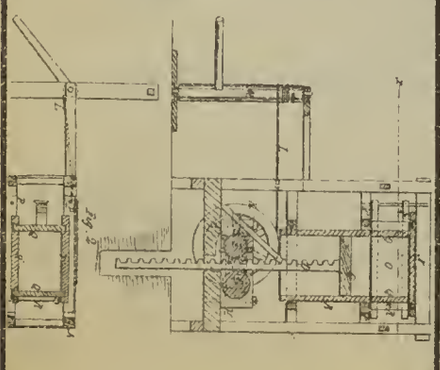
104,989, H. W. OLNEY. METHOD OF HANGING WINDOW-SHADES.



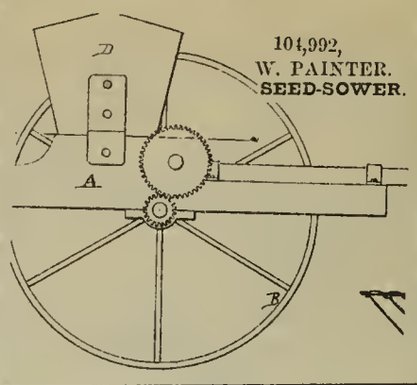
104,990, EDWIN K. PAGE. FOLDING-STEREOSCOPES.



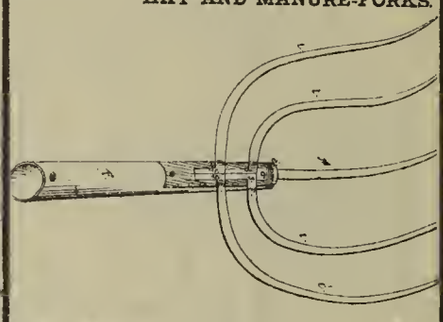
104,991, URIAH PAGE. PRESS FOR PRESSING COTTON OR HAY.



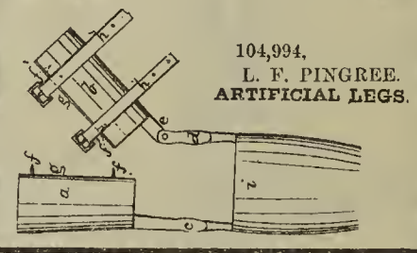
104,992, W. PAINTER. SEED-SOWER.



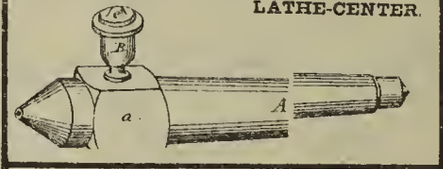
104,993, ROLLA A. PEET. HAY AND MANURE-FORKS.



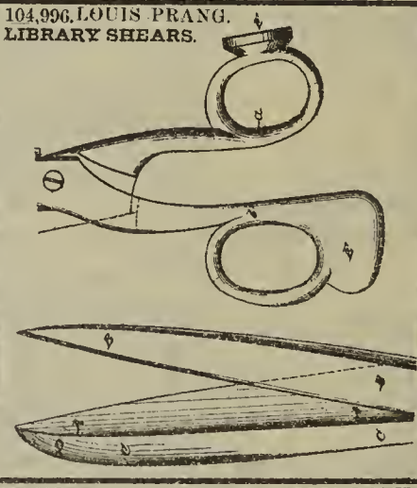
104,994, L. F. PINGREE. ARTIFICIAL LEGS.



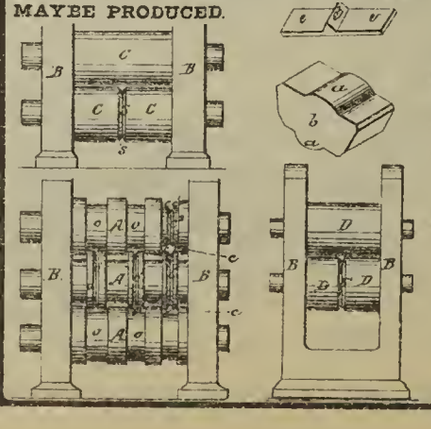
104,995, H. K. PORTER. LATHE-CENTER.



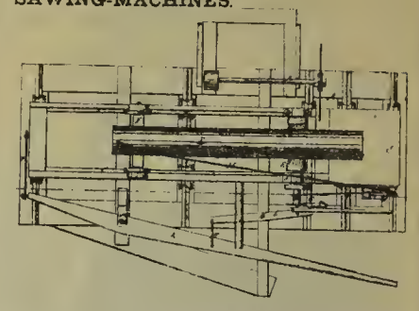
104,996, LOUIS PRANG. LIBRARY SHEARS.



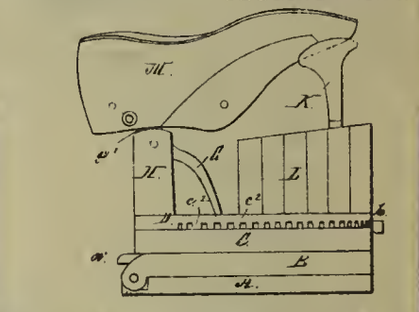
104,997, JACOB REESE. METALLIC LATH, AND BILLETS FROM WHICH THE SAME MAYBE PRODUCED.



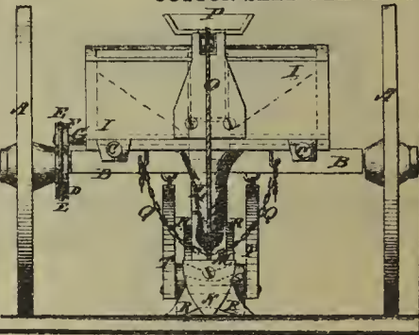
104,998, FREDERICK RHOAD. SAWING-MACHINES.



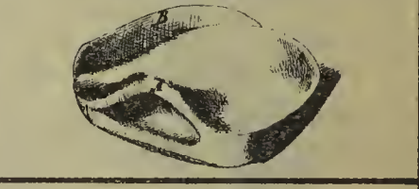
104,999, HUBERT RICARD. PEGGING-JACKS.



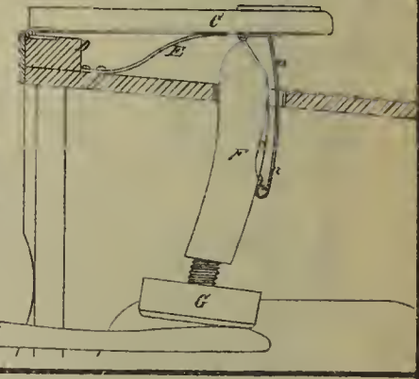
105,000, JORDAN RIGGSBEE. COTTON-SEED PLANTER.



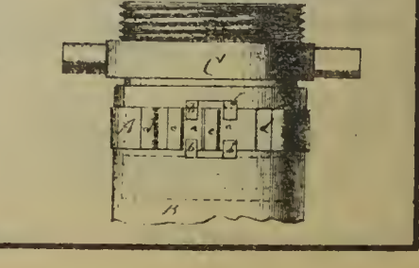
105,001, D. A. SANBORN. PENMAN'S HAND-SUPPORTS.



105,002, GUSTAV A. SCOTT W. B. FRISBEE. SUPPLEMENTARY PEDAL ATTACHMENT FOR PIANO-FORTES.

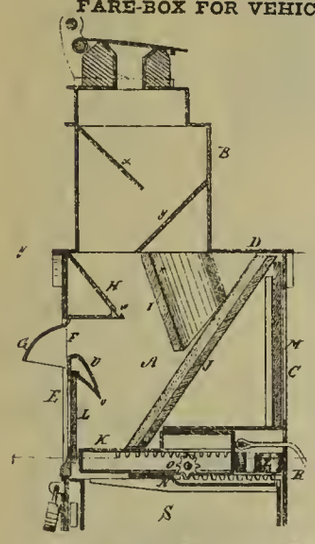


105,003, AUGUST SCHRADER. RINGS FOR SECURING HOSE TO COUPLINGS.

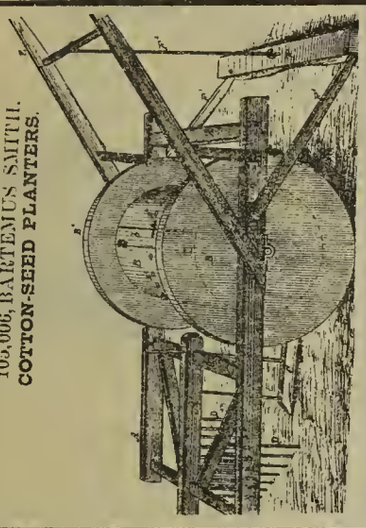


105,004, WILLARD C. SHORT.
CHAIN-LINK.

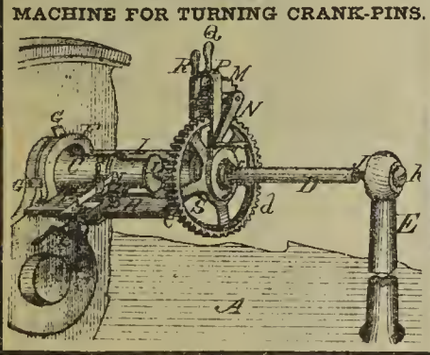
105,005, J. B. SLAWSON.
FARE-BOX FOR VEHICLES.



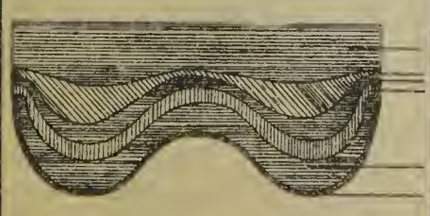
105,006, BARTEMUS SMITH.
COTTON-SEED PLANTERS.



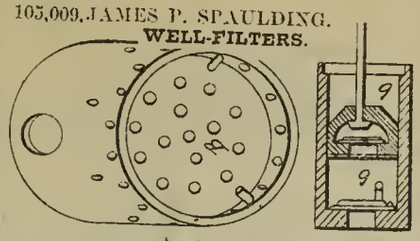
105,007, HORACE S. SMITH.
WM. D. WHITMORE.
MACHINE FOR TURNING CRANK-PINS.



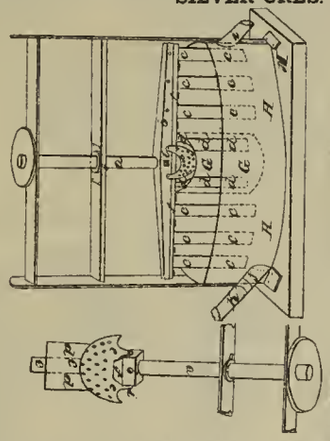
105,008, W. C. SMITH. **CONSTRUCTION OF DENTAL IMPRESSION-MOLDS.**



105,009, JAMES P. SPAULDING.
WELL-FILTERS.

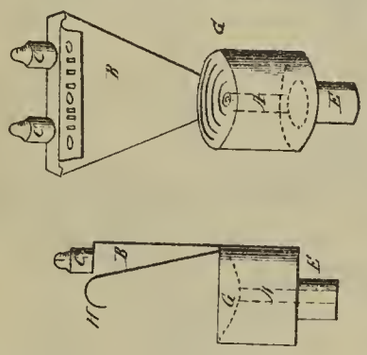


105,010, WELLS SPICER.
APPARATUS FOR SAVING MERCURY FROM THE WASHINGS OF GOLD AND SILVER ORES.

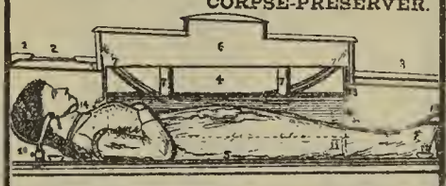


105,011, OSCAR MAX SPILLER, M. D.
MEDICAL COMPOUND FOR THE CURE OF FEVER AND AGUE.

105,012, WM. STEWART. **APPARATUS FOR GENERATING AND BURNING GAS.**



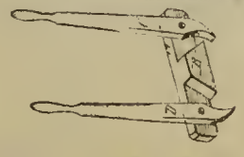
105,013, JAMES C. TAYLOR.
CORPSE-PRESERVER.



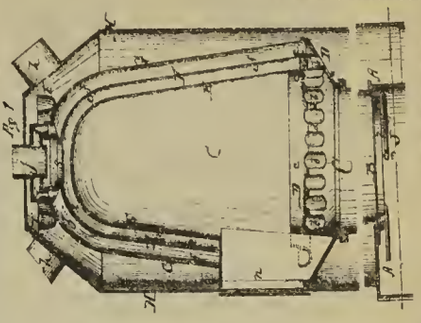
105,014, MARSHALL TURLY.
BENJAMIN F. THOMAS.
PRINTERS' INK.

105,015, JAN VAN SLOOTEN.
CALEB S. HUNT.
WM. McCULLOCH.
PIPE-CLEANSING APPARATUS.

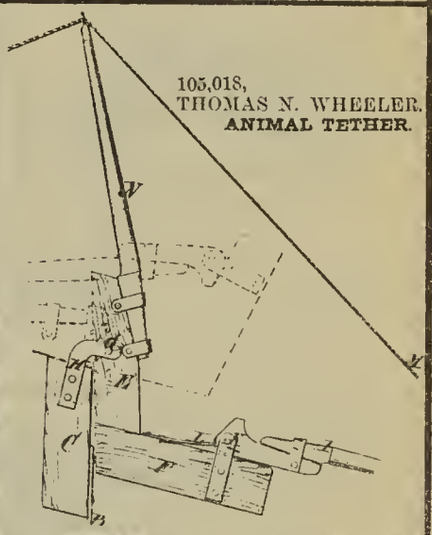
105,016, WALTER WARD.
SPIKE-EXTRACTOR.



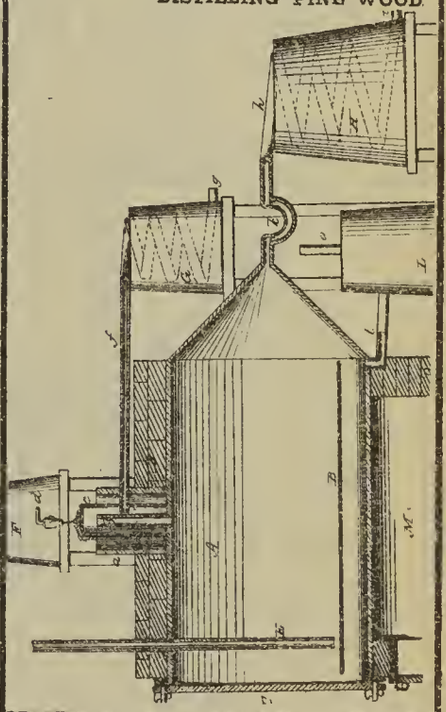
105,017, EDWARD WEBSTER.
HOT-AIR FURNACE.



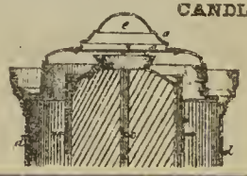
105,018,
THOMAS N. WHEELER.
ANIMAL TETHER.



105,019, THOMAS W. WHEELER.
DISTILLING PINE WOOD.

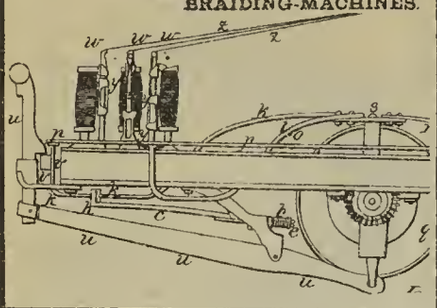


105,020, THOMAS SCOTT WILLIAMS.
FREEMAN AUGUSTUS TABER.
CANDLE-LAMPS.

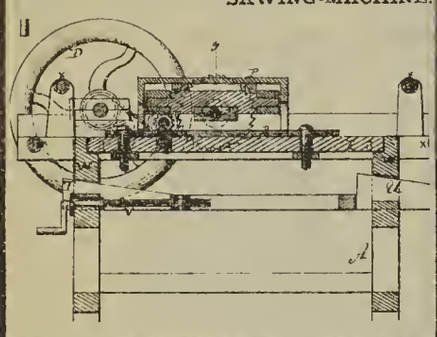


105,021, JOHN WILSON.
GEORGE H. BAISLY.
WELL-AUGERS.

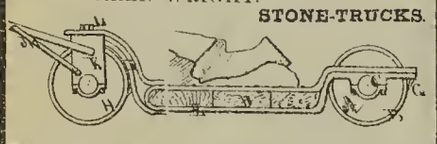
105,022. GILMAN K. WINCHESTER. STOP-MOTION SPRING FOR BRAIDING-MACHINES.



105,023, JOHN A. WOOD. SAWING-MACHINE.

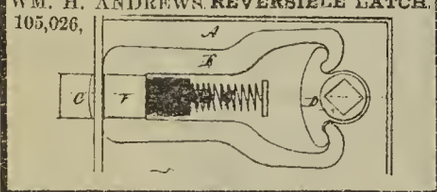


105,024, JACKSON WRIGHT. GREEN WRIGHT. STONE-TRUCKS.

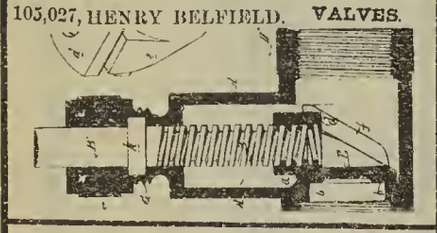


105,025. WARREN ALLEN. DOOR-SPRINGS.

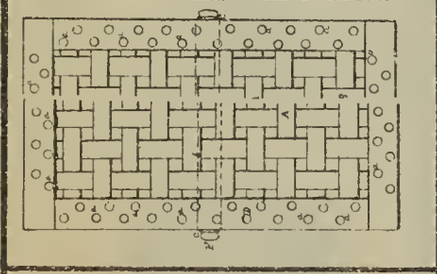
WM. H. ANDREWS. REVERSIBLE LATCH. 105,026,



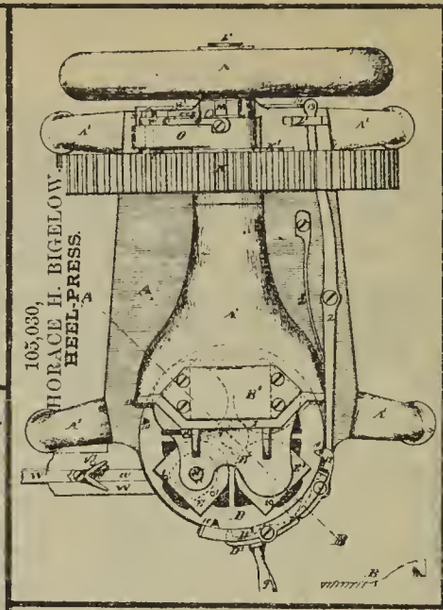
105,027, HENRY BELFIELD. VALVES.



105,028, VAN BELL. BED-BOTTOM.

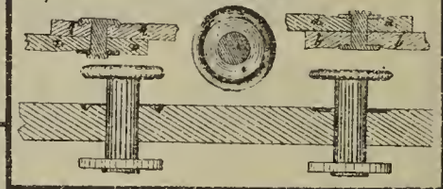


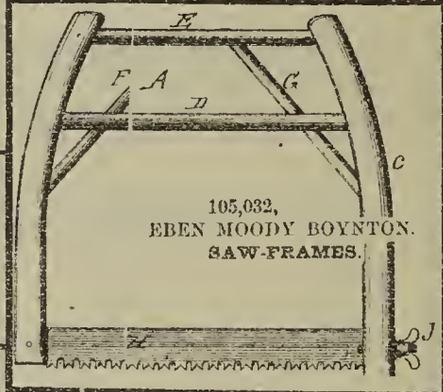
105,029, MORRIS L. BENNETT. TUNING-SCALE.



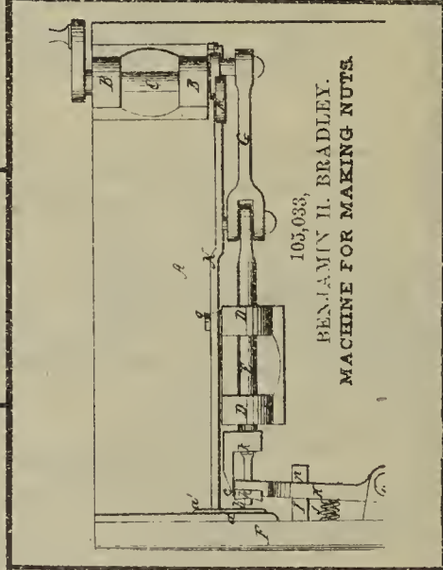
105,030, HORACE H. BIGELOW. HEEL-PRESS.

105,031, ALEX. BOYD. RIVETS.



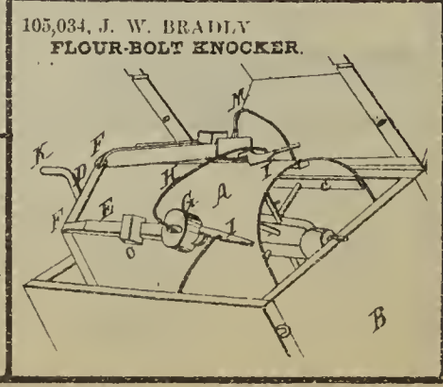


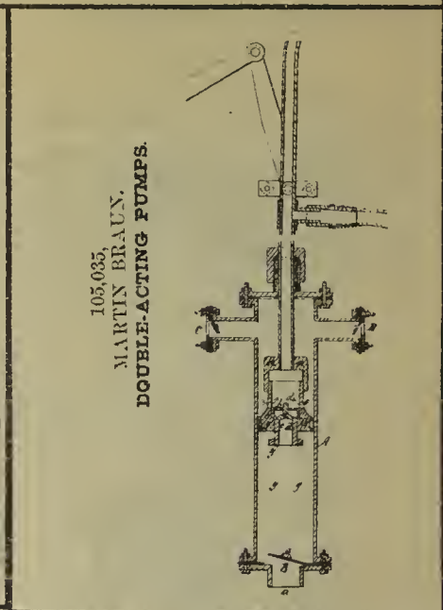
105,032, EBEN MOODY BOYNTON. SAW-FRAMES.



105,033, BENJAMIN H. BRADLEY. MACHINE FOR MAKING NUTS.

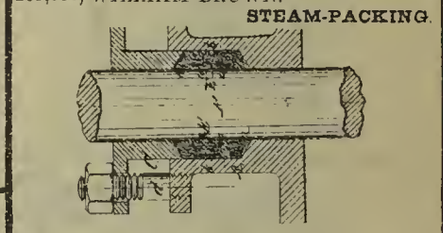
105,034, J. W. BRADLY FLOUR-BOLT KNOCKER.



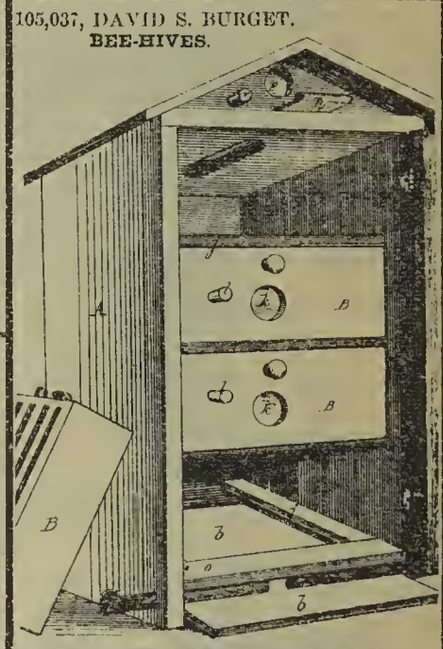


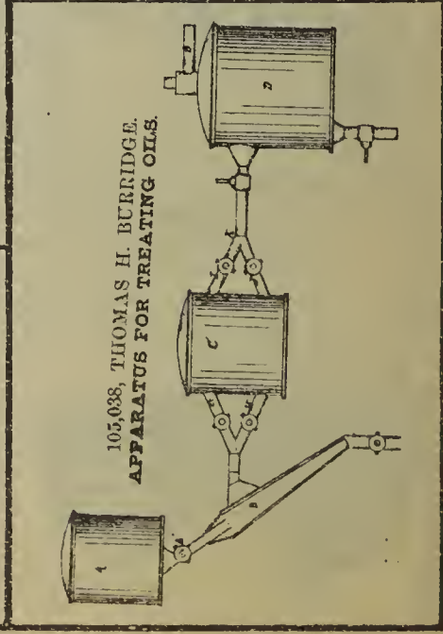
105,035, MARTIN BRAUN. DOUBLE-ACTING PUMPS.

105,036, WILLIAM BROWN. STEAM-PACKING.

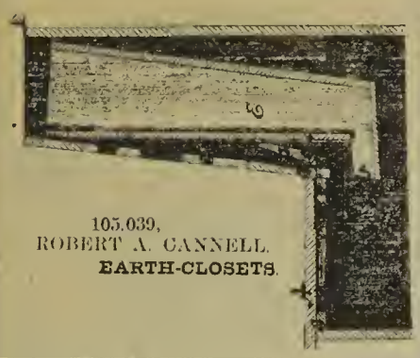


105,037, DAVID S. BURGET. BEE-HIVES.

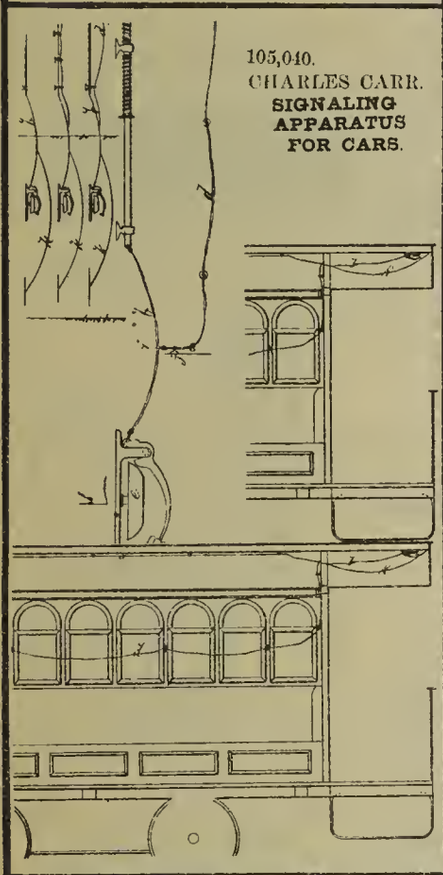




105,038, THOMAS H. BURRIDGE. APPARATUS FOR TREATING OILS.



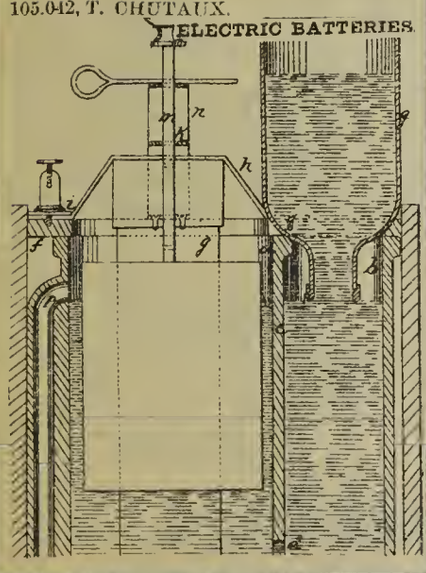
105,039,
ROBERT A. CANNELL.
EARTH-CLOSETS.



105,040.
CHARLES CARR.
SIGNALING APPARATUS FOR CARS.

105,041. CANCELED

105,042, T. CHUTAUX.
ELECTRIC BATTERIES.



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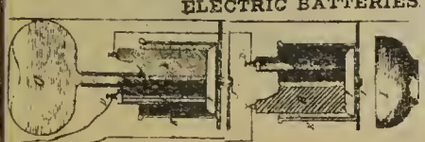
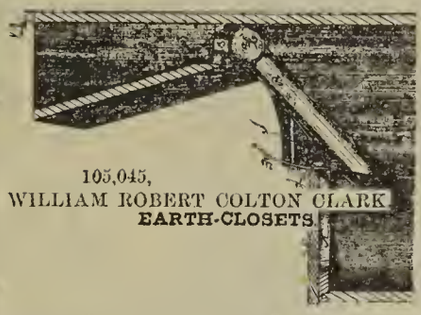
ELECTRIC BATTERIES.

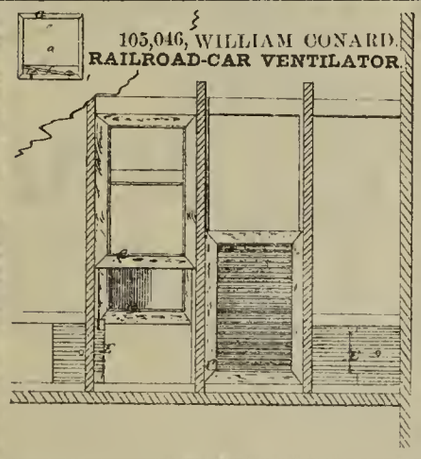


105,044, JOHN HOSMER CLARK. **FILES.**

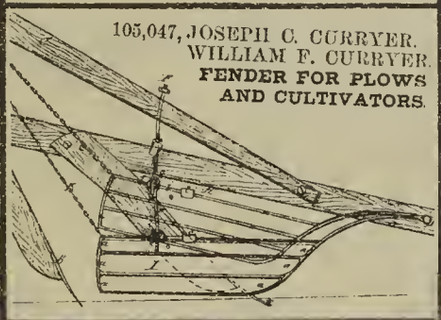


105,045,
WILLIAM ROBERT COLTON CLARK.
EARTH-CLOSETS.

105,046, WILLIAM CONARD.
RAILROAD-CAR VENTILATOR.



105,047, JOSEPH C. CURRYER.
WILLIAM F. CURRYER.
FENDER FOR PLOWS AND CULTIVATORS.



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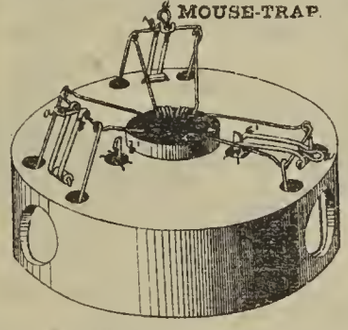
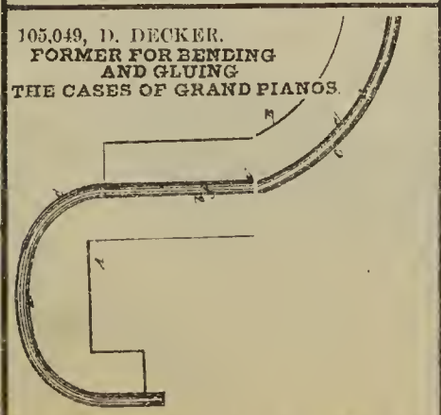
HENRY S. FROST.
MOUSE-TRAP.

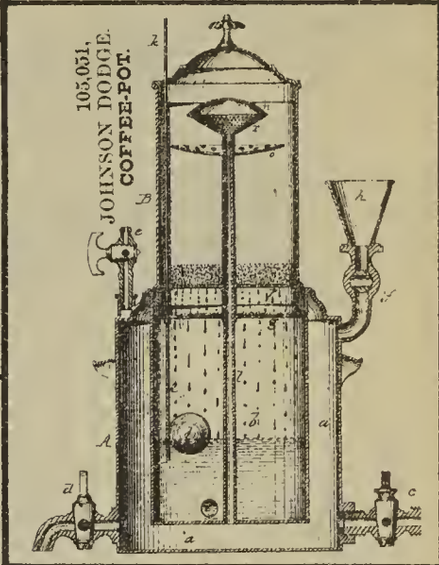


105,049, D. DECKER.
FORMER FOR BENDING AND GLUING THE CASES OF GRAND PIANOS.



105,050. CASPER DITTMAN. **HAY-KNIVES**

105,051,
JOHNSON DODGE.
COFFEE-POT.



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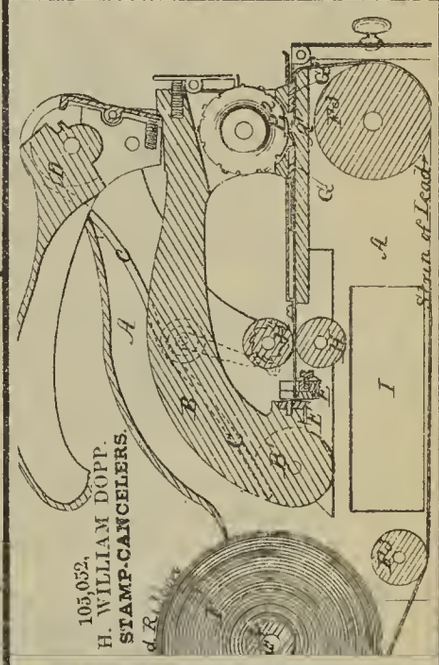
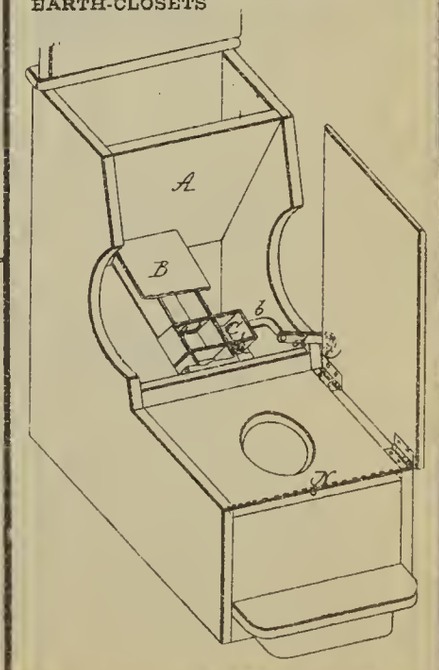
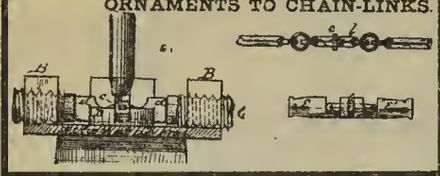
H. WILLIAM DOPP.
STAMP-CANCELERS.



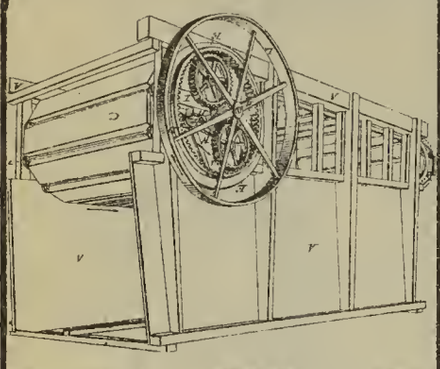
105,053, JAMES ADDIZON DRAKE.
EARTH-CLOSETS



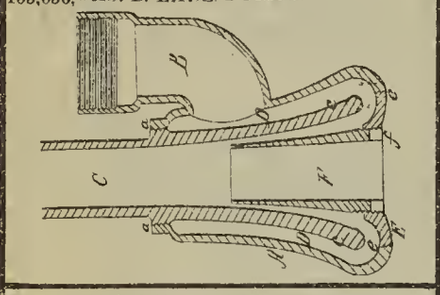
105,054, VIRGIL DRAPER.
MACHINE FOR ATTACHING ORNAMENTS TO CHAIN-LINKS.



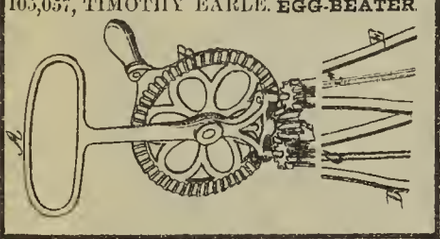
105,055, JOSEPH H. DULL. **TREAD-POWER.**



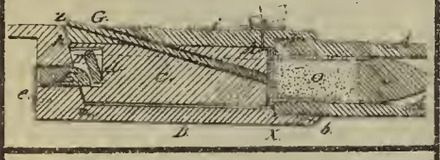
105,056, JAS. B. EADS. **PUMPS.**



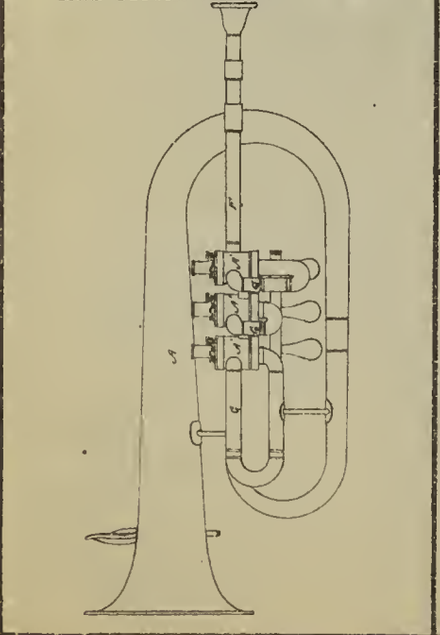
105,057, TIMOTHY EARLE. **EGG-BEATER.**



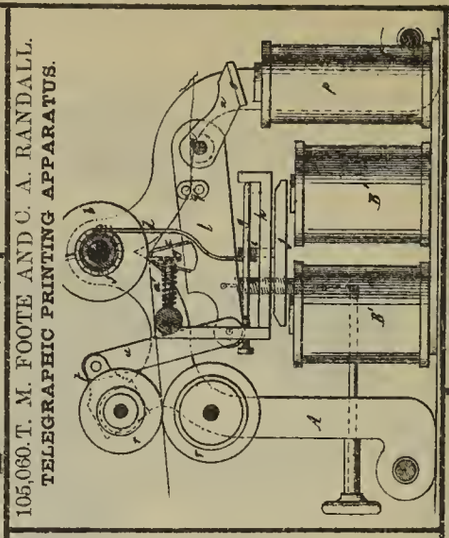
105,058, ALFRED B. ELY.
EDW. C. CLAY.
BREECH-LOADING FIRE-ARMS.



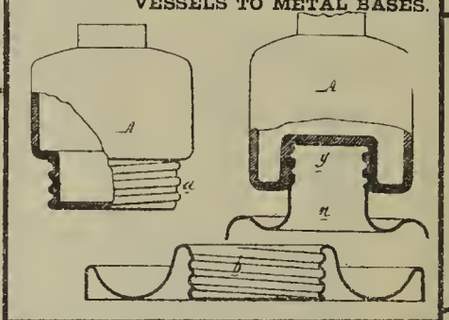
105,059, WILHELM C. FIETZ. **CORNETS AND OTHER WIND INSTRUMENTS.**



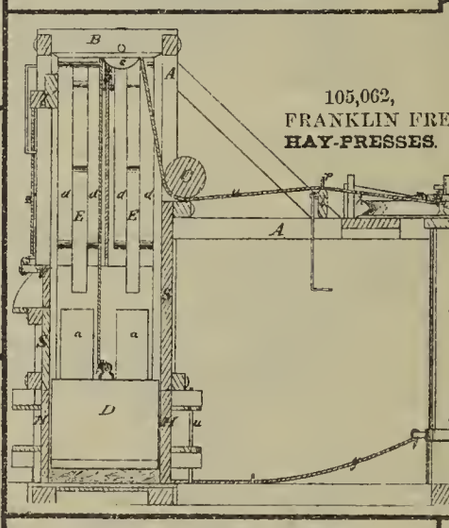
105,060. T. M. FOOTE AND C. A. RANDALL.
TELEGRAPHIC PRINTING APPARATUS.



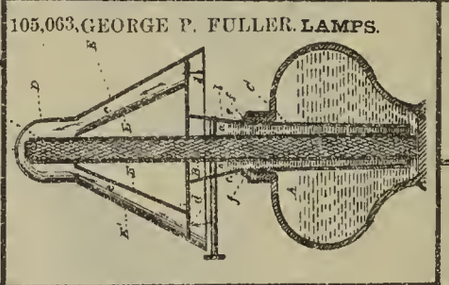
105,061, ALONZO FRENCH.
MODE OF SECURING GLASS VESSELS TO METAL BASES.



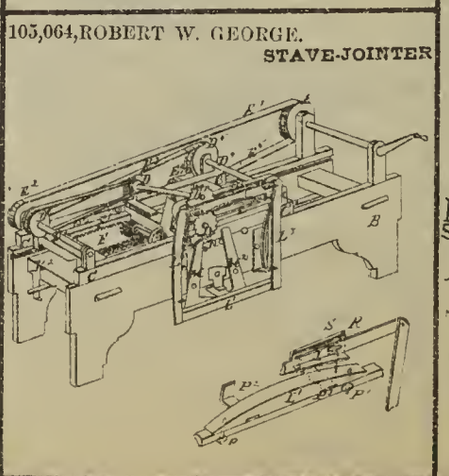
105,062,
FRANKLIN FREY.
HAY-PRESSES.



105,063, GEORGE P. FULLER. **LAMPS.**



105,064, ROBERT W. GEORGE.
STAVE-JOINTER.



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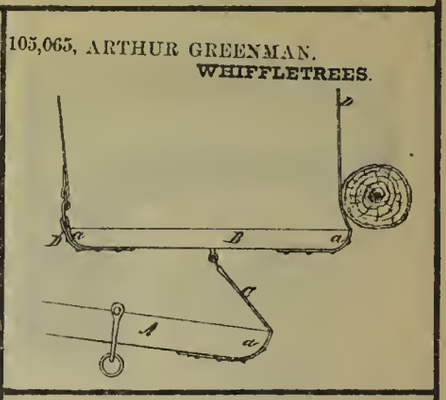
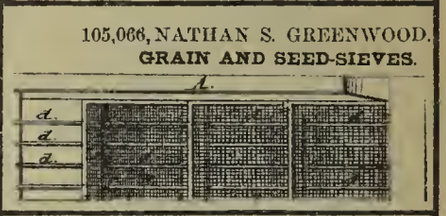
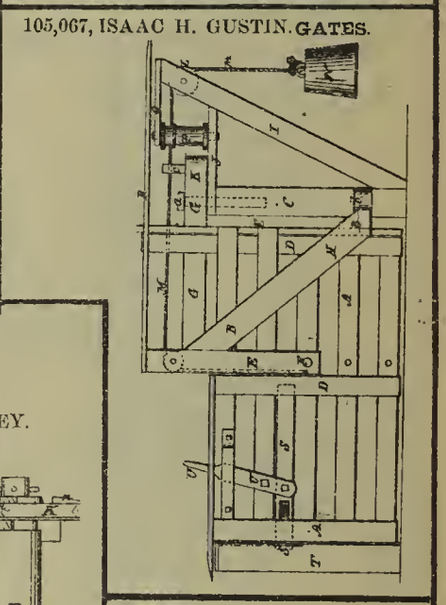
WHIFFLETREES.



105,066, NATHAN S. GREENWOOD.
GRAIN AND SEED-SIEVES.



105,067, ISAAC H. GUSTIN. **GATES.**



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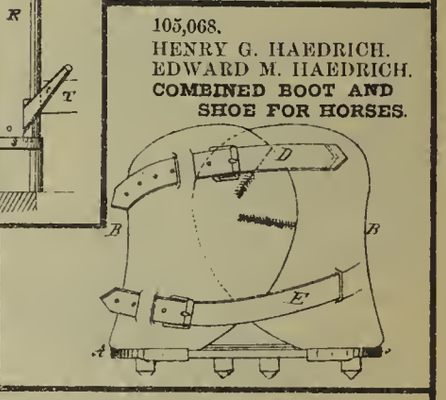
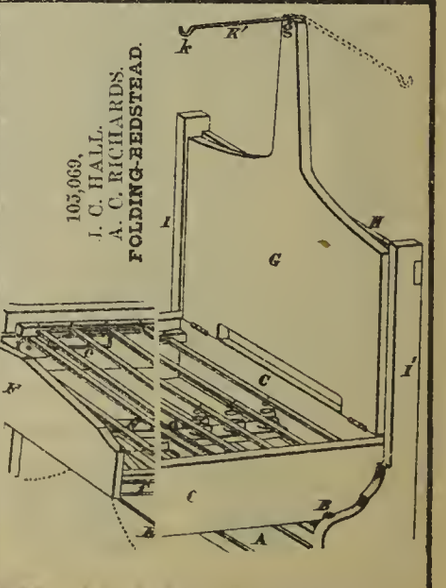
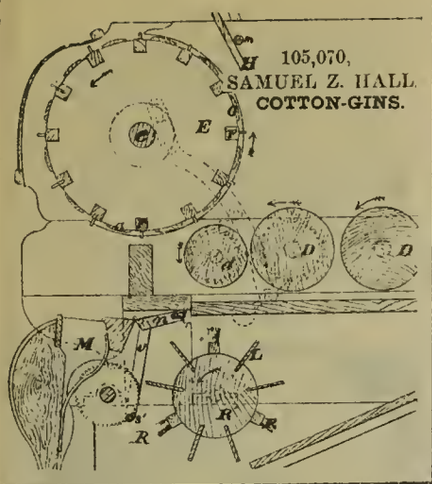
HENRY G. HAEDRICH.
EDWARD M. HAEDRICH.
COMBINED BOOT AND SHOE FOR HORSES.



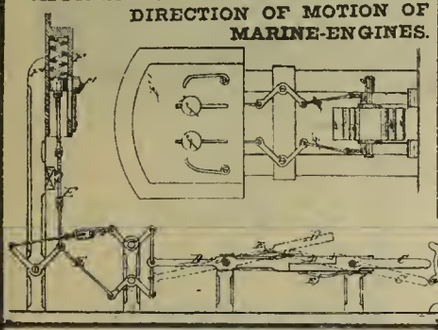
105,069,
J. C. HALL.
A. C. RICHARDS.
FOLDING-BEDSTEAD.



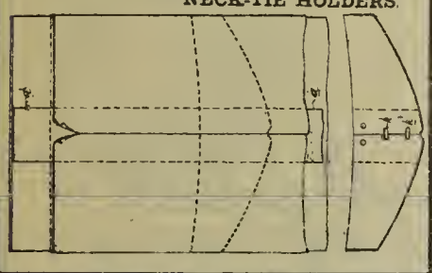


105,070, SAMUEL Z. HALL. COTTON-GINS.

105,071, A. R. HARRIS. APPARATUS FOR SIGNALING THE DIRECTION OF MOTION OF MARINE-ENGINES.

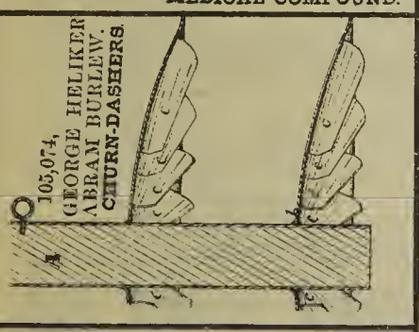


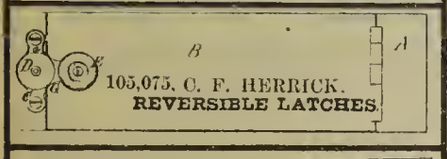
105,072, WILLIAM H. HART, JR. HIRAM H. THAYER. NECK-TIE HOLDERS.



105,073, JOHN BRIGHTMAN HASKINS. MEDICAL COMPOUND.

105,074, GEORGE HELIKER. ABRAM BURLEW. CHURN-DASHERS.

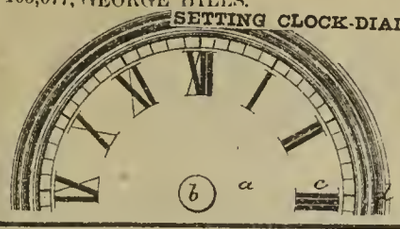




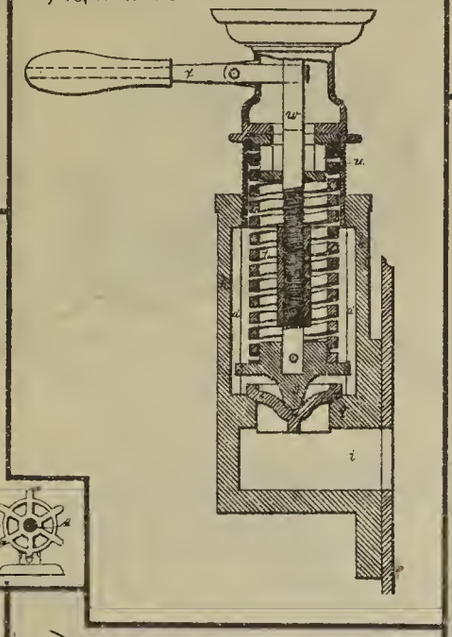
105,075, C. F. HERRICK. REVERSIBLE LATCHES.

105,076, HENRY HILLIARD. AWNING-FRAME.

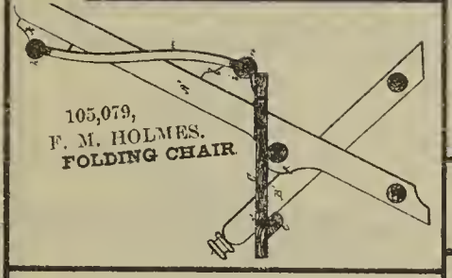
105,077, GEORGE HILLS. SETTING CLOCK-DIALS.



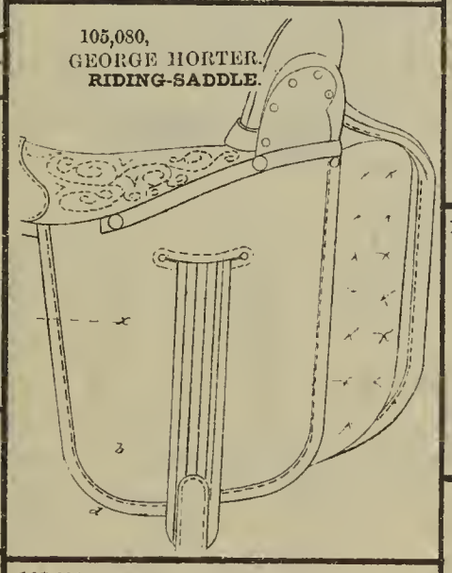
105,078, J. C. HOADLEY. STEAM-ENGINES.



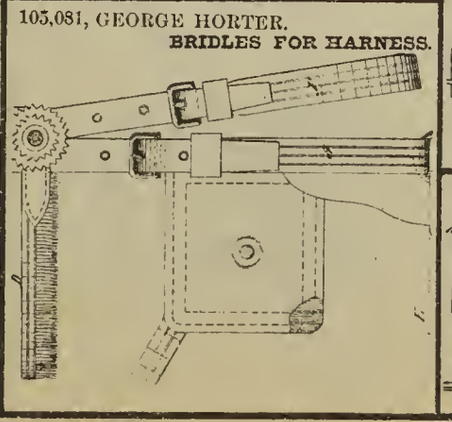
105,079, F. M. HOLMES. FOLDING CHAIR.



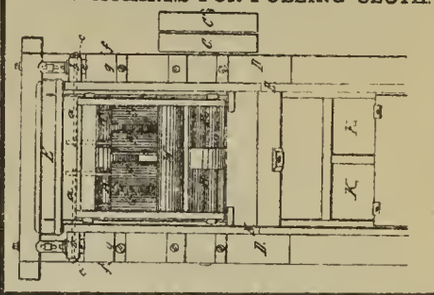
105,080, GEORGE HORTER. RIDING-SADDLE.



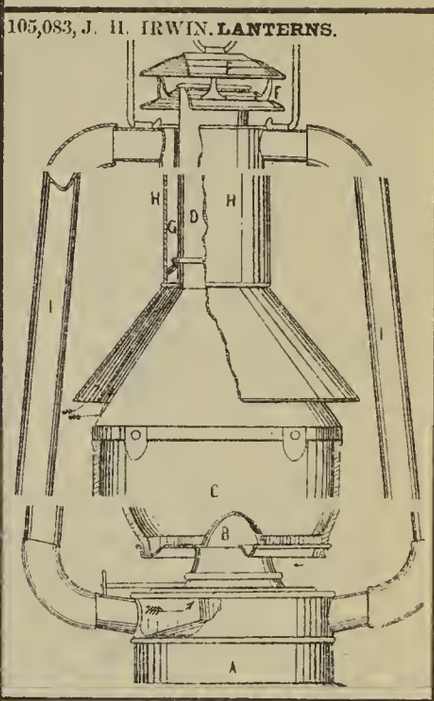
105,081, GEORGE HORTER. BRIDLES FOR HARNESS.



105,082, RODNEY HUNT. MACHINES FOR FULLING CLOTH.

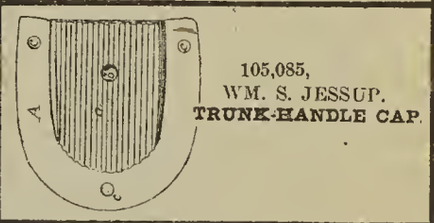


105,083, J. H. IRWIN. LANTERNS.

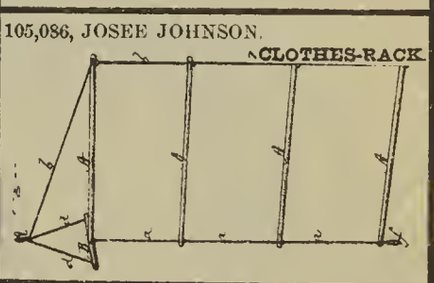


105,084, GUSTAV L. JAEGER. ADHESIVE COMPOUND FOR PREPARING PASTEBOARD.

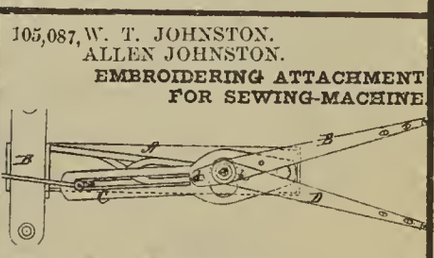
105,085, WM. S. JESSUP. TRUNK-HANDLE CAP.



105,086, JOSEE JOHNSON. CLOTHES-RACK.



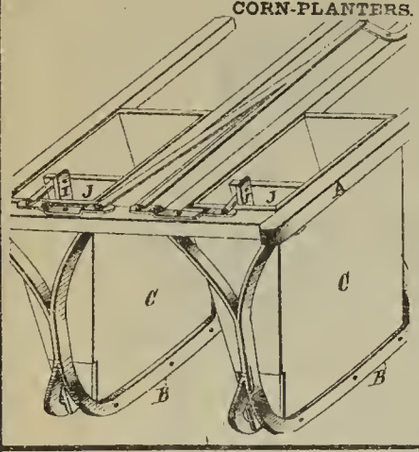
105,087, W. T. JOHNSTON. ALLEN JOHNSTON. EMBROIDERING ATTACHMENT FOR SEWING-MACHINE.



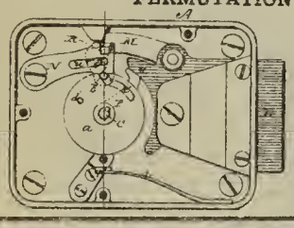
105,088, SOLOMON JONES. B. TERFLOTH. DEVICES FOR PROPELLING STREET-CARS.

105,089, DANIEL KAEMPFE.
CARL LIST.
COMPOUNDING CHINA-CLAY TO IMITATE MARBLE, MOTHER-OF PEARL.

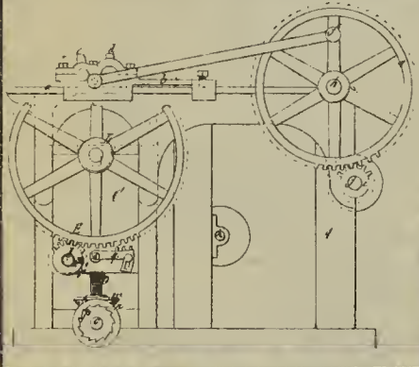
105,090, DANIEL KEETHLER.
CORN-PLANTERS.



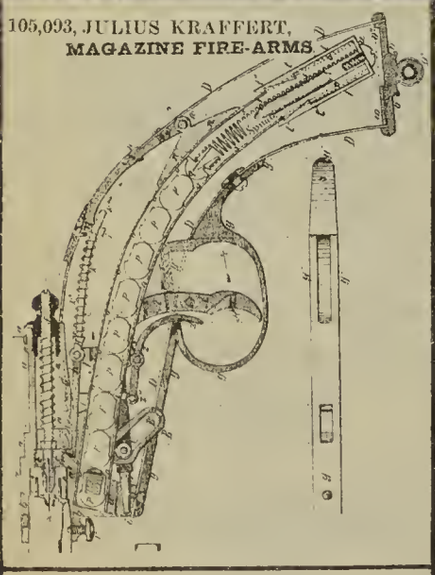
105,091, WILLOUGHBY F. KISTLER.
PERMUTATION LOCKS.



105,092, GEORGE KOCH.
VENEER-CUTTERS



105,093, JULIUS KRAFFERT.
MAGAZINE FIRE-ARMS.



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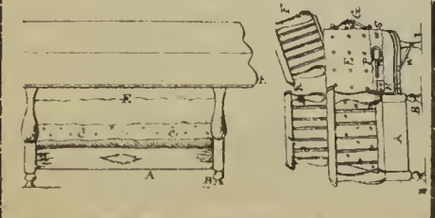
SETTEE, BED, AND TABLE.



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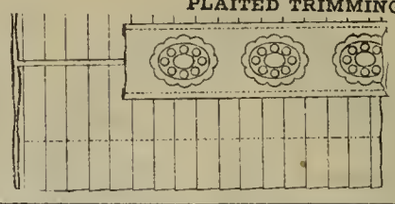
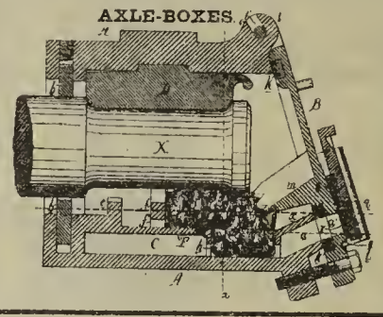
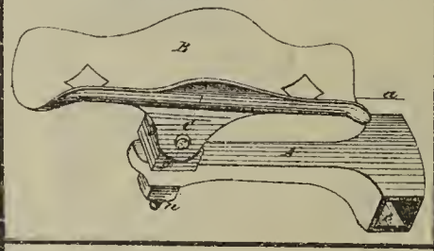
PLAITED TRIMMINGS.



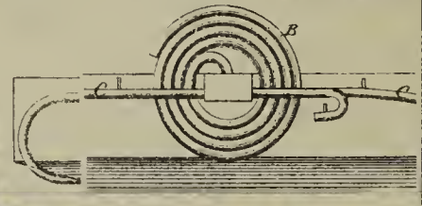
105,096, JOHN JOSEPH LAHAYE.
JOHN EASTBURN WOOTTEN.
AXLE-BOXES.



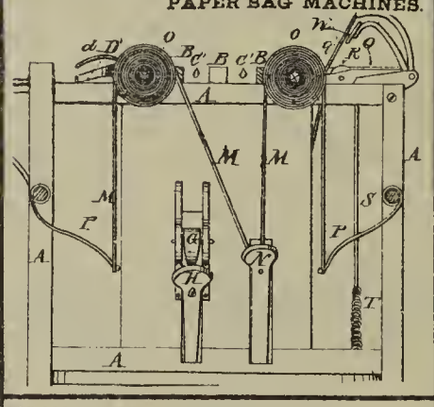
105,097, JAMES LEWIS.
TOP-REST FOR CARRIAGES.



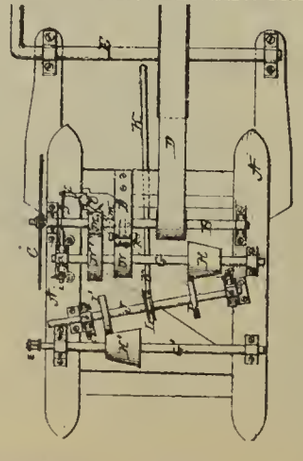
105,098, E. T. LIGON.
PROPELLING APPARATUS.



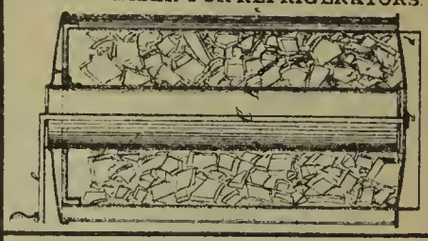
105,099, NICHOLAS LORTON.
JOHN S. DAVISON.
PAPER BAG MACHINES.



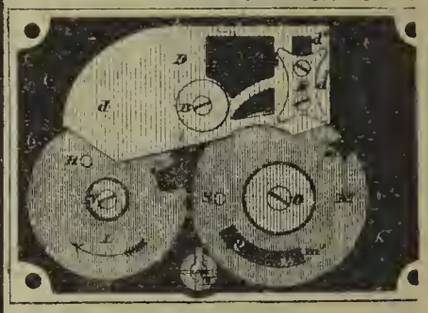
105,100, JAMES R. LUCE.
CIRCULAR-SAW MILLS.



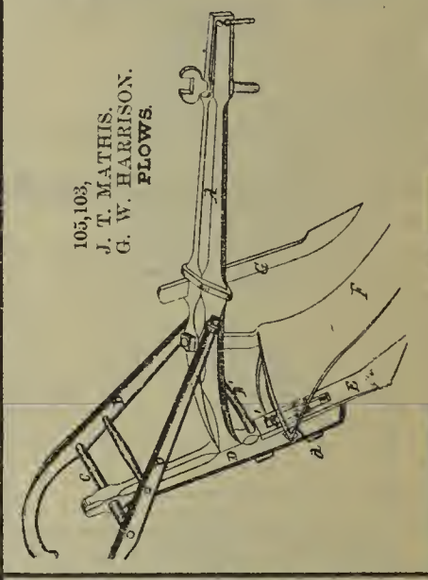
105,101, JOHN H. LYNCH.
ICE-CHAMBER FOR REFRIGERATORS.



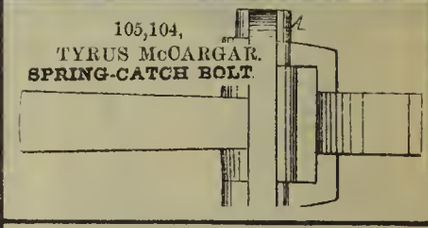
105,102, NEIL MACNEALE.
PERMUTATION LOCKS.



105,103,
J. T. MATHIS.
G. W. HARRISON.
PLOWS.



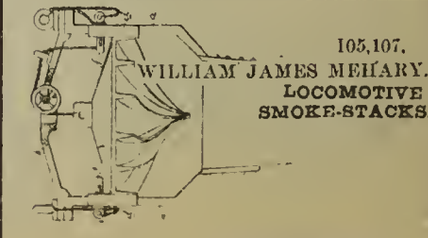
105,104,
TYRUS McCARGAR.
SPRING-CATCH BOLT.



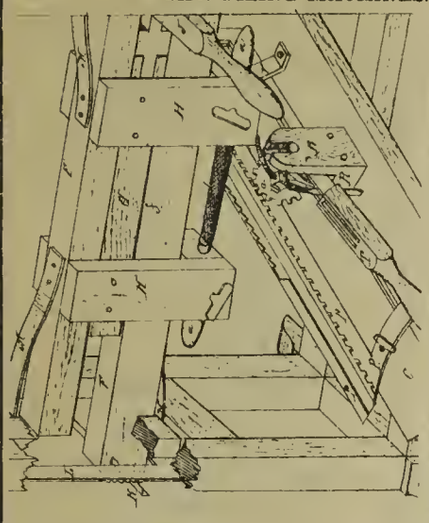
105,105, GEO. A. McILHENNY.
LOCKS FOR PIPE-COUPLINGS.

105,106, ALEX. McKENNA. HYDRANTS.
JOHN McKENNA.
THOMAS McKENNA.

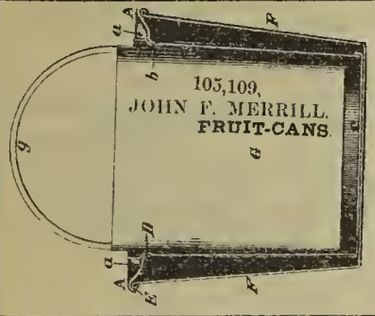
105,107,
WILLIAM JAMES MEHARY.
LOCOMOTIVE SMOKE-STACKS.



105,108, HENRY H. MELLEN.
SAW-FILING MACHINES.



105,109,
JOHN F. MERRILL.
FRUIT-CANS.



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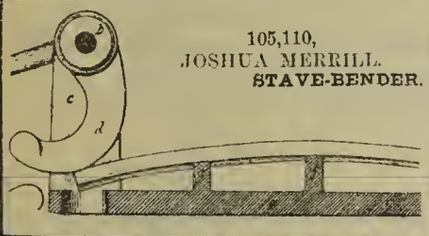
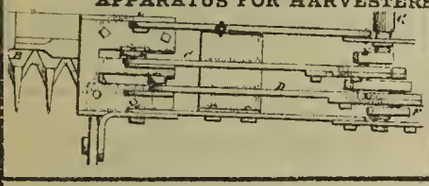
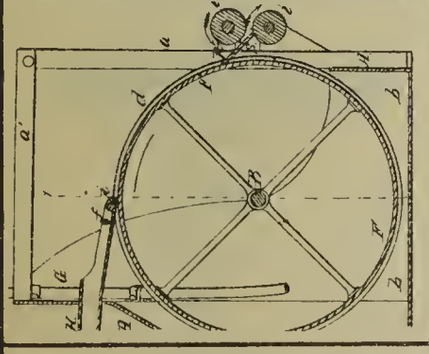
JOSHUA MERRILL.
STAVE-BENDER.



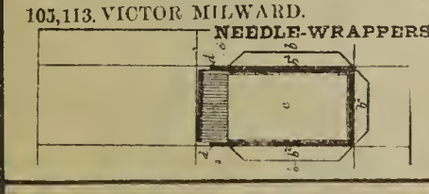
105,111, HENRY MEWES. CUTTING
APPARATUS FOR HARVESTERS.



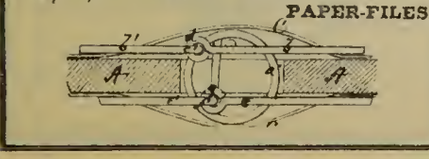
105,112, JAMES MILLINGAR.
MACHINE FOR MAKING SHEET-LEAD.



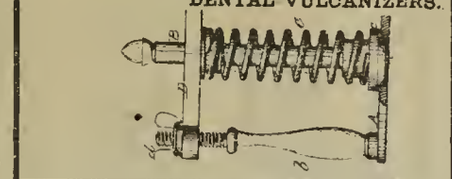
105,113, VICTOR MILWARD.
NEEDLE-WRAPPERS.



105,114, THOMAS E. MOORE.
PAPER-FILES.



105,115, FRANCIS R. MOORHEAD
SAFETY-VALVES FOR
DENTAL VULCANIZERS.



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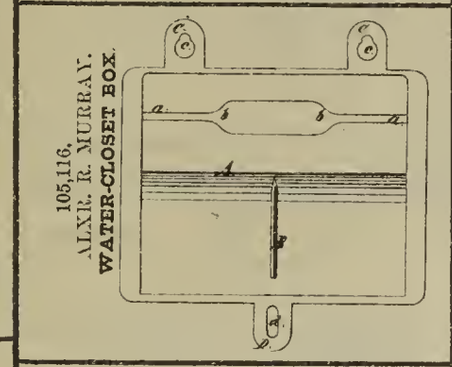
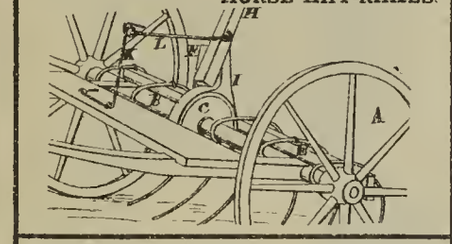
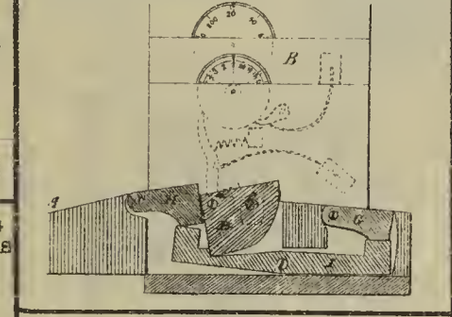
ALXR. R. MURRAY.
WATER-CLOSET BOX.



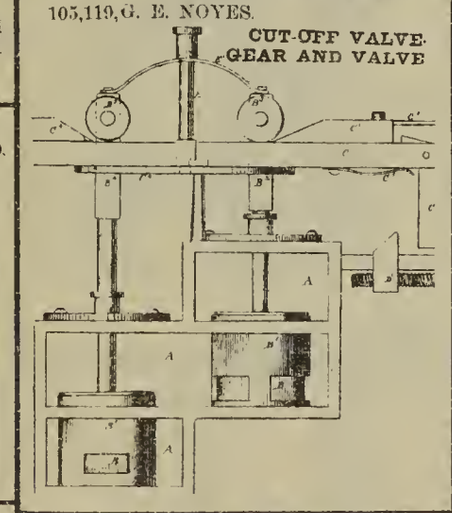
105,117, LORENZO MYERS.
HORSE HAY-RAKES.



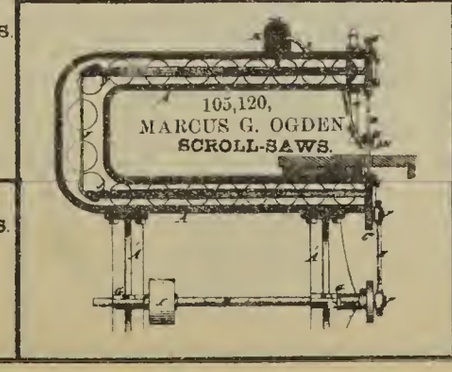
105,118, F. NICHOLSON.
TALLYING-REGISTER FOR FREIGHT.



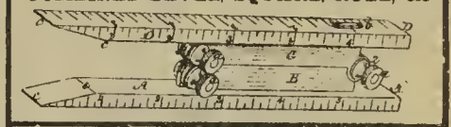
105,119, G. E. NOYES.
CUT-OFF VALVE-
GEAR AND VALVE



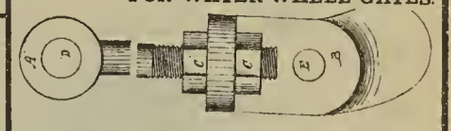
105,120,
MARCUS G. OGDEN.
SCROLL-SAWS.



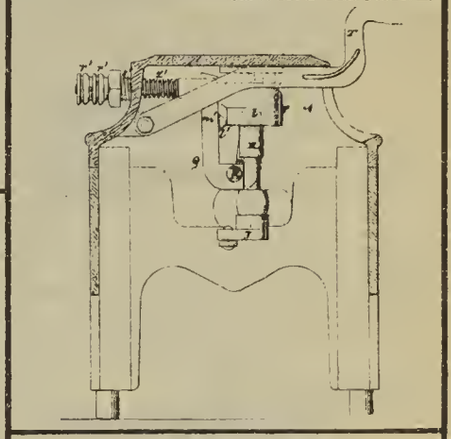
105,121, JOHN D. OTSTOT.
COMBINED BEVEL, SQUARE, RULE, &c.



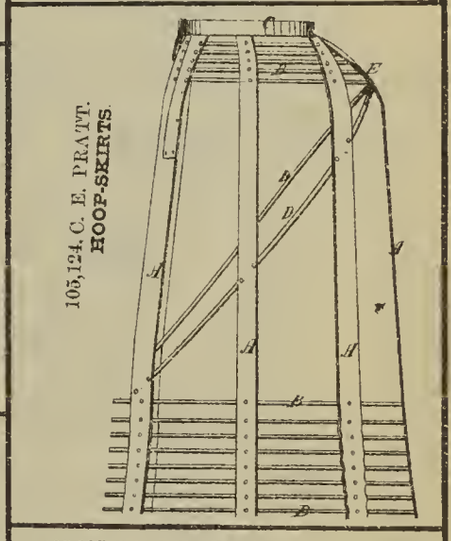
105,122, WM. A. PARMELE.
ADJUSTABLE LINKS
FOR WATER-WHEEL GATES.



105,123, TRUMAN W. PEPPER.
SEWING-MACHINE.

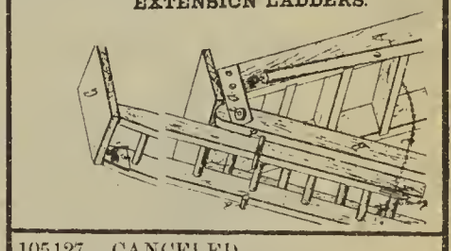


105,124, C. E. PRATT.
HOOP-SKIRTS.



105,125, ROBERT PRICE.
PAPER FOR BONDS, DRAFTS, CHECKS.

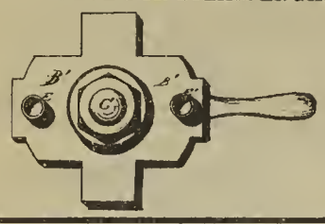
105,126, NATHANIEL PULLMAN.
EXTENSION LADDERS.



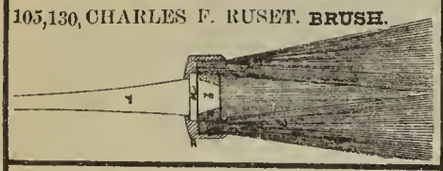
105,127. CANCELED.

105,128, FRANKLIN ROBERTS.
TANKS FOR
HOLDING COMPRESSED AIR.

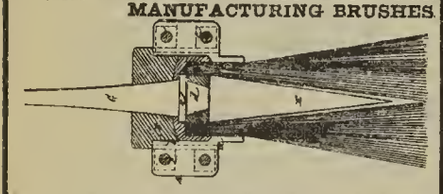
105,129, THOMAS RODDA. REVERSING VALVE FOR STEAM-ENGINES.



105,130, CHARLES F. RUSET. BRUSH.

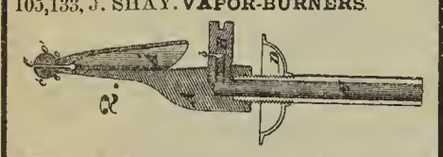


105,131, CHARLES F. RUSET DEVICE FOR MANUFACTURING BRUSHES.

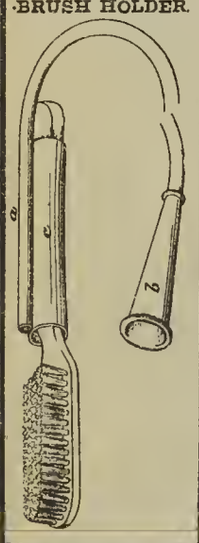


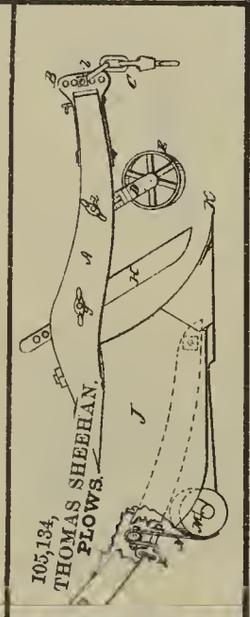
105,132, CARL SCHAEFFER. MANUFACTURE OF ARTIFICIAL STONE.

105,133, J. SHAY. VAPOR-BURNERS.



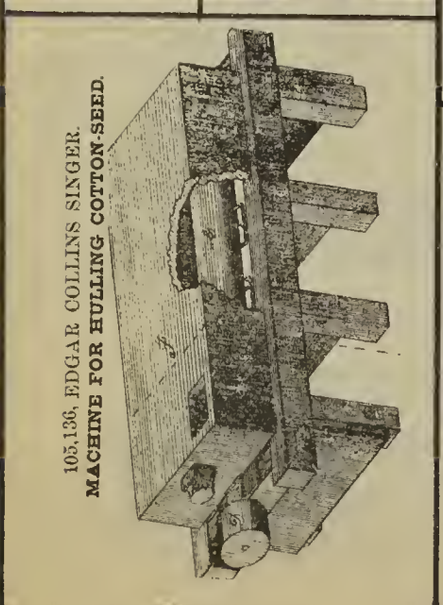
105,135. W. A. SHEPARD. FOUNTAIN BRUSH HOLDER.



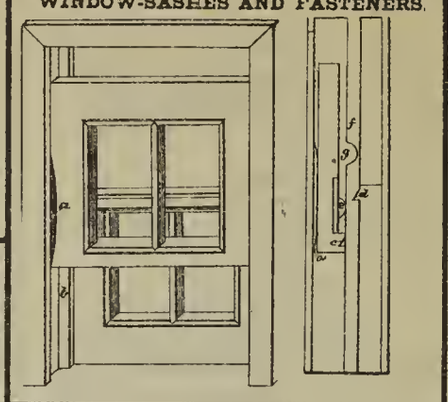


105,134, THOMAS SHEEHAN. PLOWS.

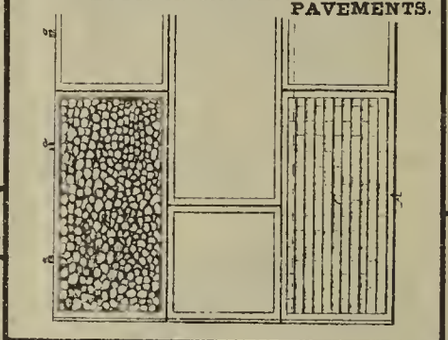
105,136, EDGAR COLLINS SINGER. MACHINE FOR HULLING COTTON-SEED.



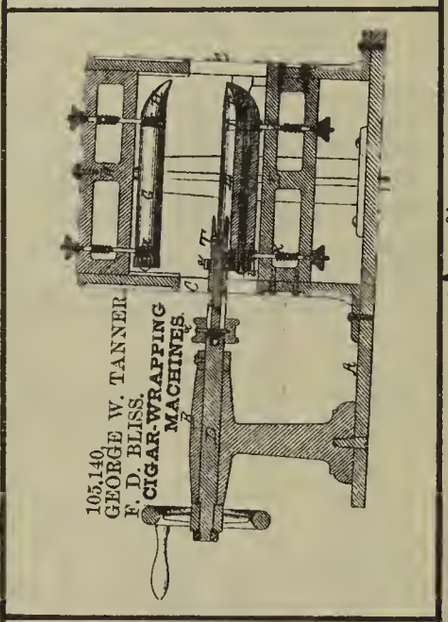
105,137, ELIAS SMITH. WINDOW-SASHES AND FASTENERS.



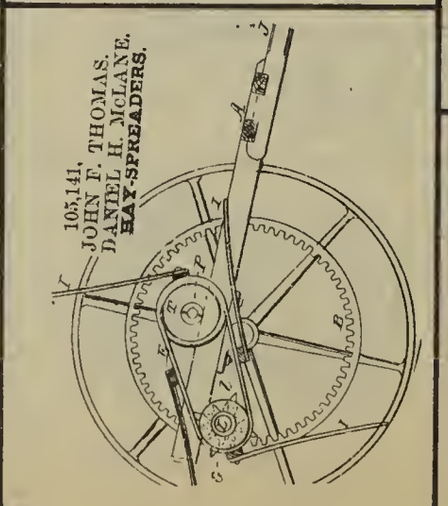
105,138, ANDREW STEVENS. LOUIS A. CAUVET. PAVEMENTS.



105,139 OLE O. STORLE. HARVESTER-RAKES.



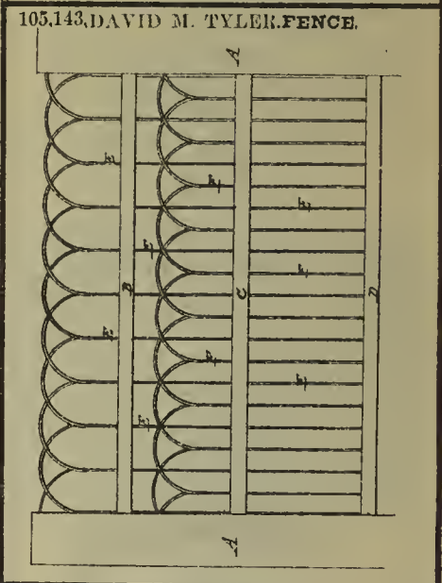
105,140, GEORGE W. TANNER, F. D. BLISS. CIGAR-WRAPPING MACHINES.



105,141, JOHN F. THOMAS, DANIEL H. McLANE. HAY-SPREADERS.

105,142, WILLIAM A. TORREY. APPLICATION OF CARBOLIC ACID FOR PREVENTING DECAY AND MILDEW IN SAIL-CLOTH, CANVAS, AND OTHER FIBROUS AND TEXTILE MATERIALS.

105,143, DAVID M. TYLER. FENCE.



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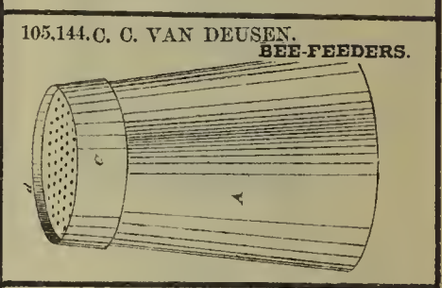
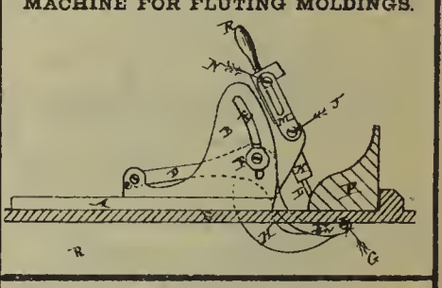


105,145, RICHARD VAN RIPER. MACHINE FOR FLUTING MOLDINGS.



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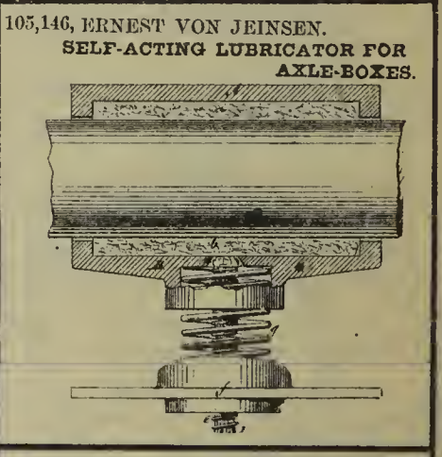

105,147, ERNEST VON JEINSEN. AUTOMATIC LUBRICATOR.

105,148, EDWARD EDMONDS WARNER.
JACOB WILLIAM WALTON.
ROBERT VINE.
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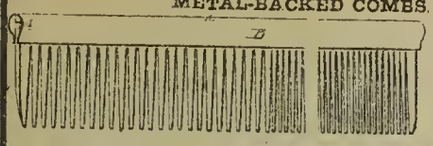

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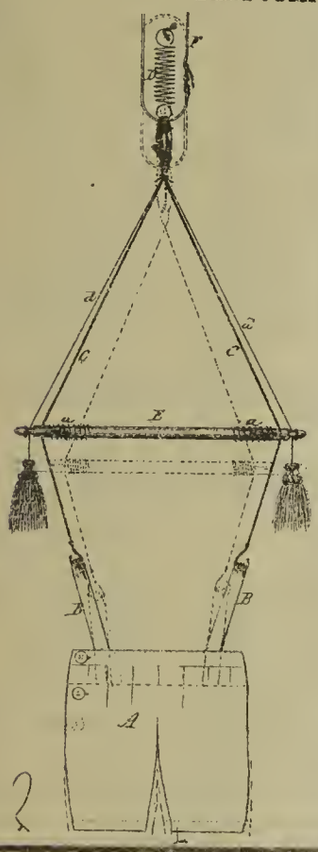

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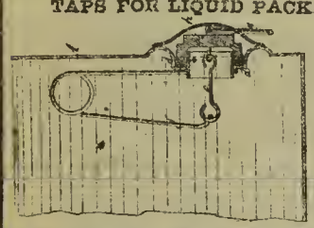

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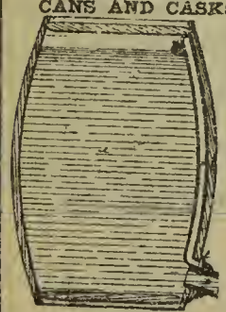

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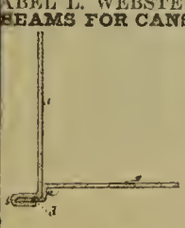

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A. E. WHITMORE.
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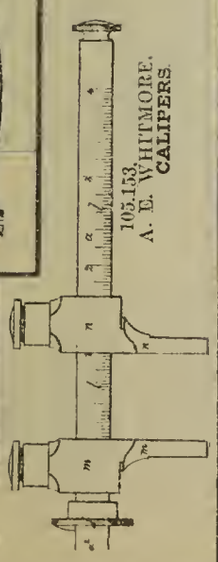

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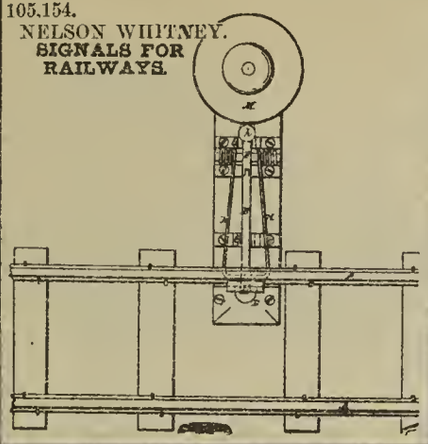
NELSON WHITNEY.
SIGNALS FOR RAILWAYS.



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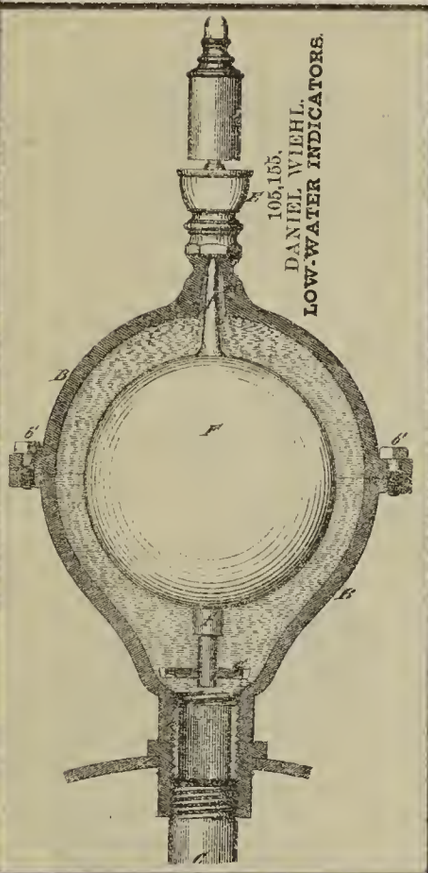
DANIEL WIEHL.
LOW-WATER INDICATORS.



105,156, PERLEY H. LAWRENCE.
APPARATUS FOR CUTTING THE CASINGS OR TUBES OF OIL-WELLS.

4,057, RALPH P. BAILEY.
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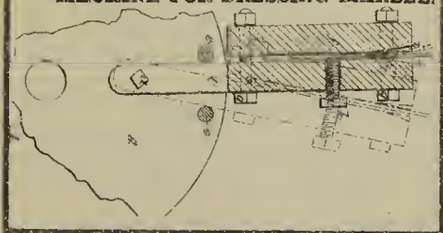
MACHINE FOR DRESSING MARBLE.



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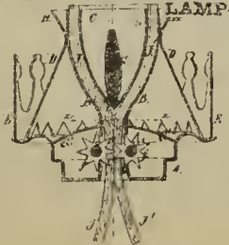
WM. D. LUDLOW.
MARY A. VAN ALEN.
LAMP-BURNERS.



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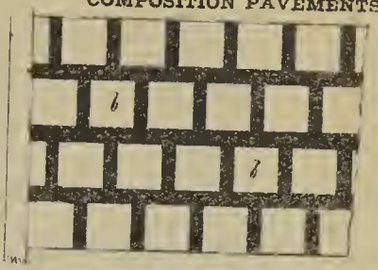
COMPOSITION PAVEMENTS.



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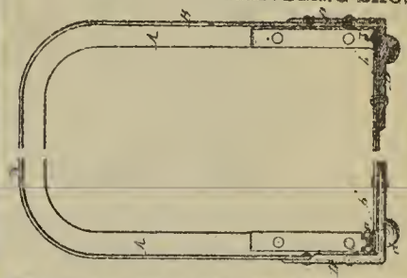
TRAVELING-BAGS.



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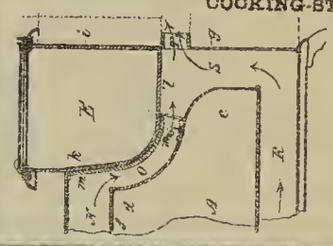
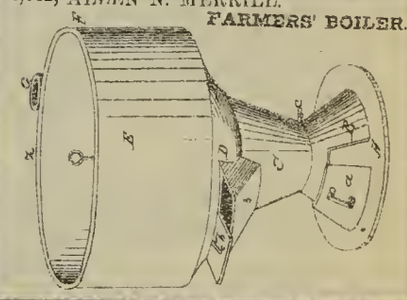
COOKING-STOVE.



4,062, ALLEN N. MERRILL.
FARMERS' BOILER.



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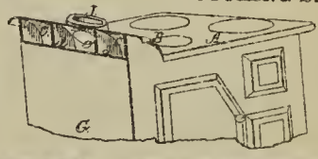
COOKING-STOVE.



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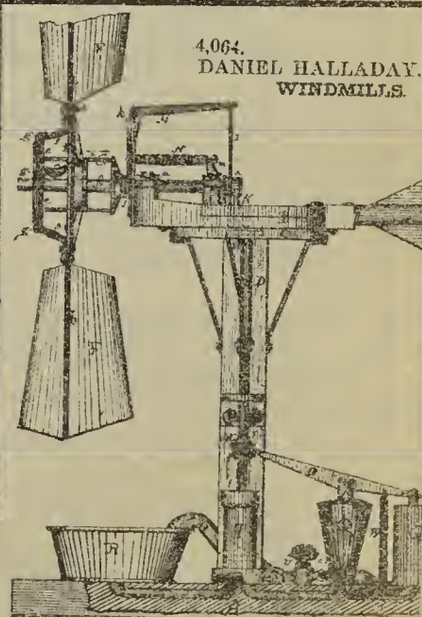
DANIEL HALLADAY.
WINDMILLS.



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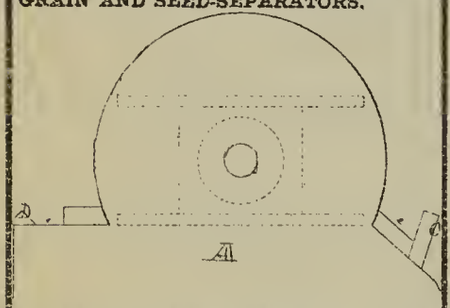
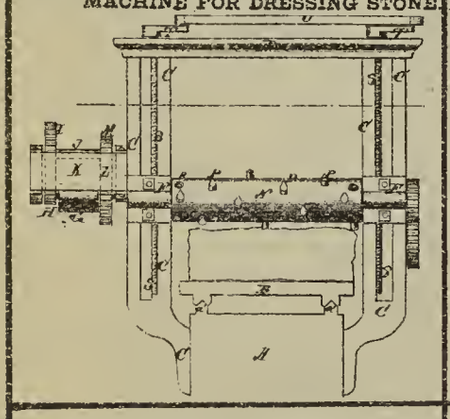
105,157 HORACE C. ALEXANDER.
SAFETY-CAPS FOR CANS.

105,158, CHAS. L. ALLEN. FAN-CASE FOR GRAIN AND SEED-SEPARATORS.

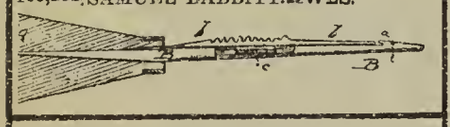


105,159 ALEX. G. ANDERSON.
MACHINE FOR DRESSING STONE.

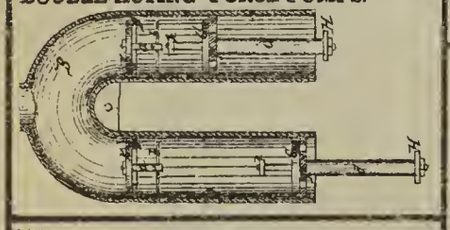


105,160, RAMON ANTIGÜEDAD.
MANUFACTURE OF TOBACCO-PAPER.

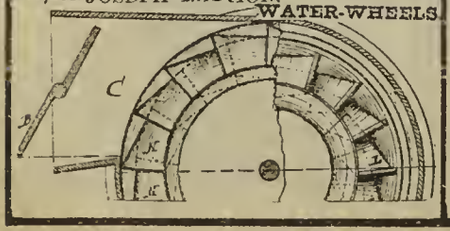
105,161, SAMUEL BABBITT. AWLS.



105,162, ALLEN BAGLEY.
DOUBLE-ACTING FORCE-PUMPS.



105,163 JOSEPH BASTION.
WATER-WHEELS.



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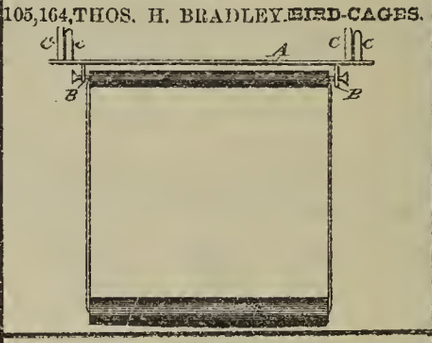

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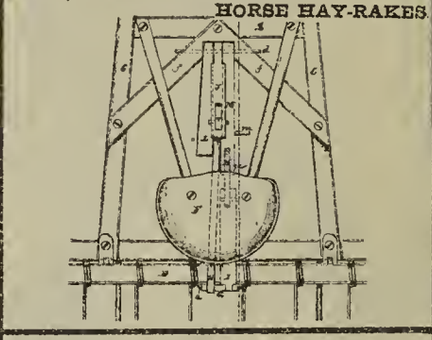

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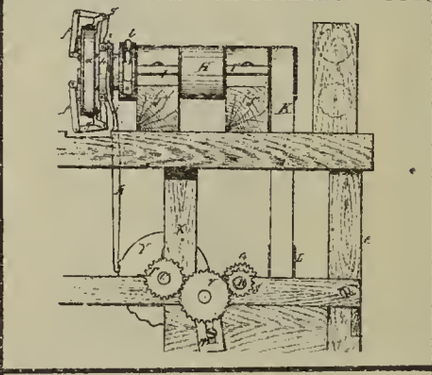
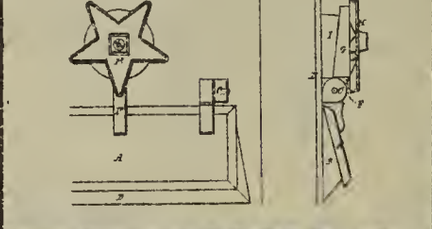
LATHES FOR TURNING WOOD.



105,167 MICAJAH C. BURLEIGH. DAMPERS.



105,168. LUCY J. BUTTRILL.
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105,169. JOHN CAMPION.
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105,170, EDWARD CHADDERDON.
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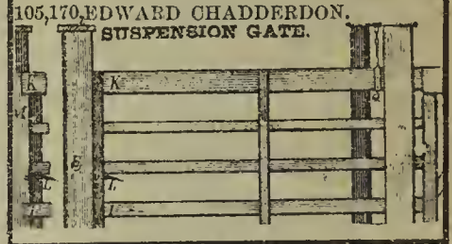

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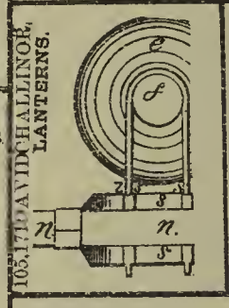
LANTERNS.



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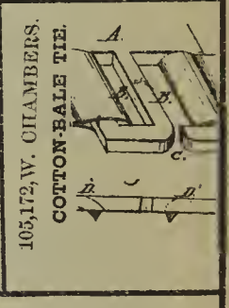
COTTON-BALE TIE.



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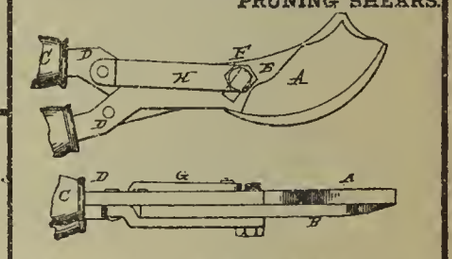
PRUNING SHEARS.



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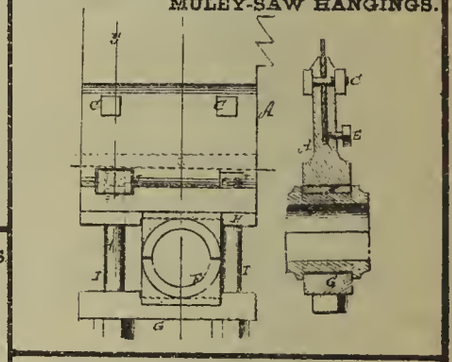
MULEY-SAW HANGINGS.



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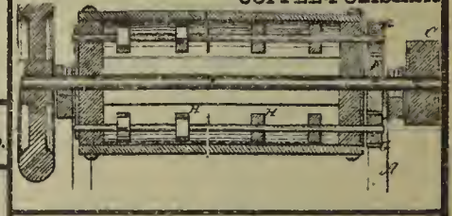

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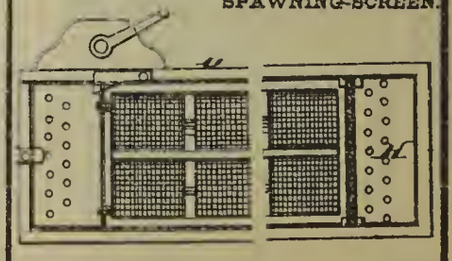
SPAWNING-SCREEN.



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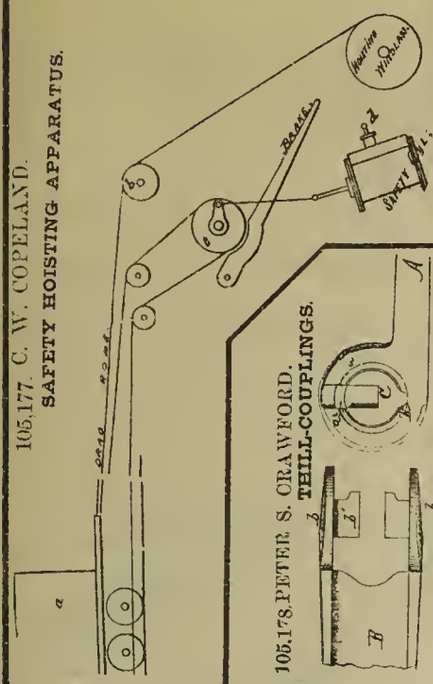
SAFETY HOISTING APPARATUS.



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THILL-COUPLINGS.

105,179,
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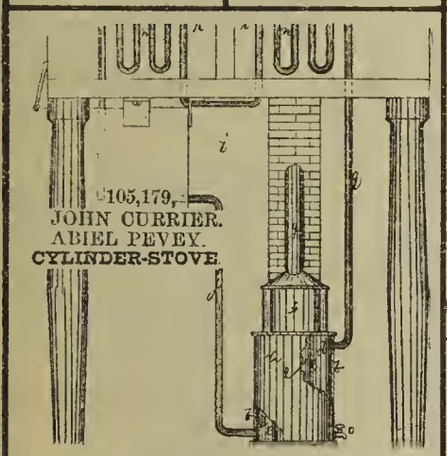
ABIEL PEVEY.
CYLINDER-STOVE.



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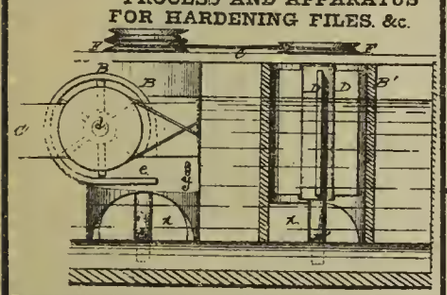
PROCESS AND APPARATUS FOR HARDENING FILES, &c.



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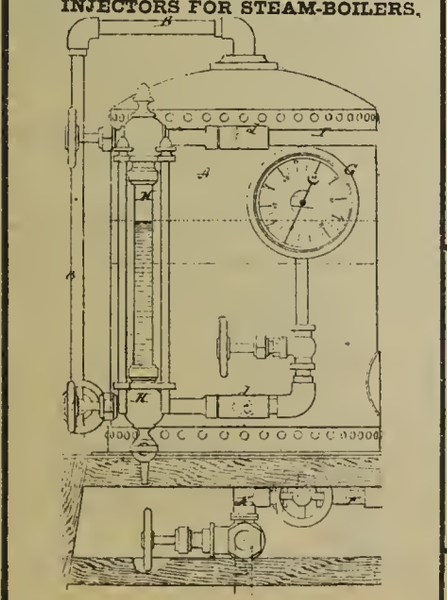
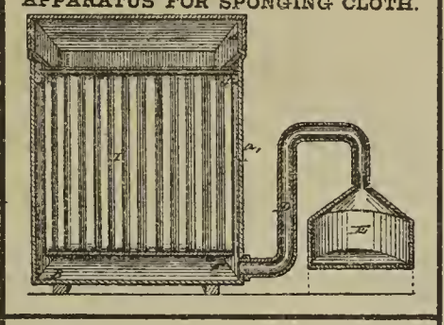
INJECTORS FOR STEAM-BOILERS.



105,182, ISAAC A. DAVIS.
APPARATUS FOR SPONGING CLOTH.



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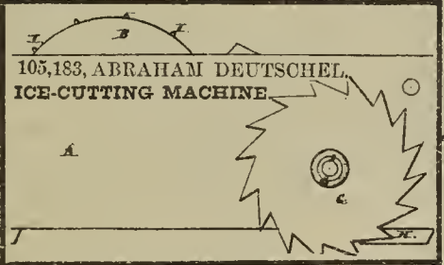
ICE-CUTTING MACHINE.



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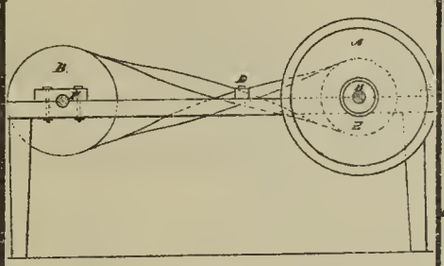

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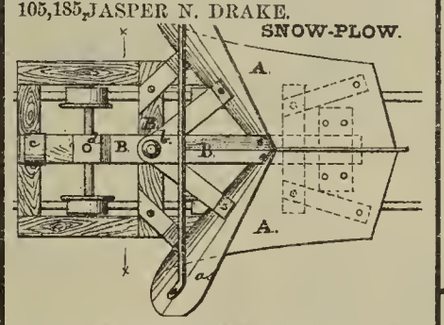

105,186, WILLIAM G. DUNNIWAY,
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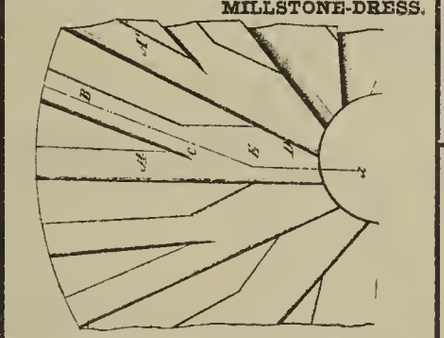
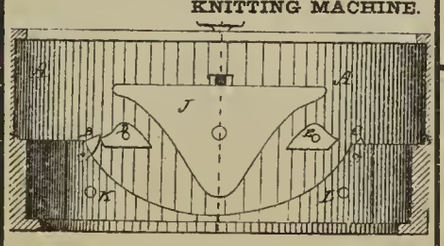
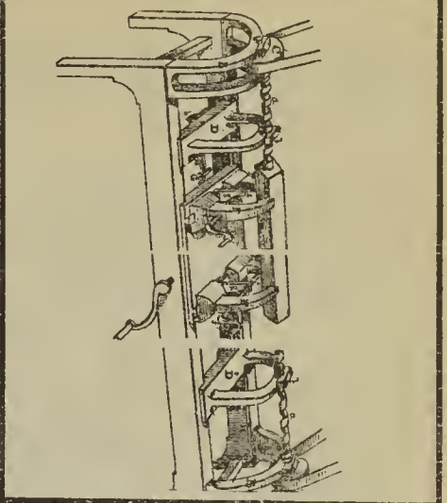


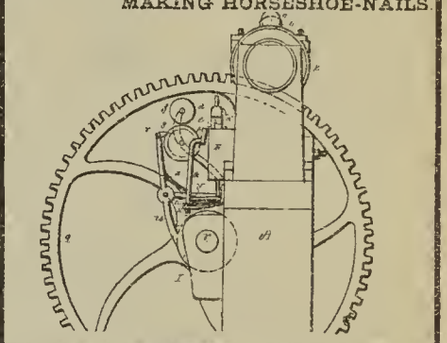
105,187. W. FRANZ AND W. POPE.
KNITTING MACHINE.



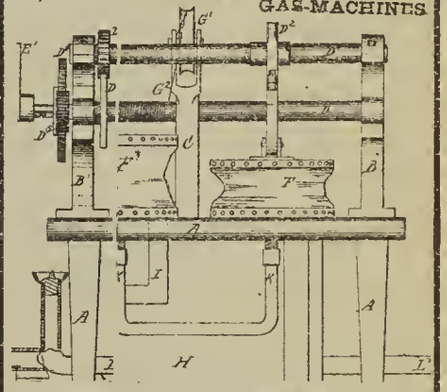
105,188, JOSHUA W. FRAZEE.
BORING-MACHINE.



105,189, P. N. GALLAER.
ISAAC C. TATE. MACHINE FOR MAKING HORSESHOE-NAILS.

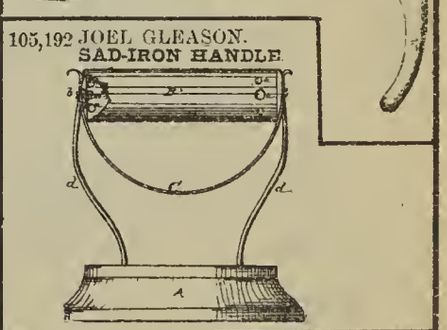


105,190, JOSEPH P. GALLAGHER.
GAS-MACHINES.

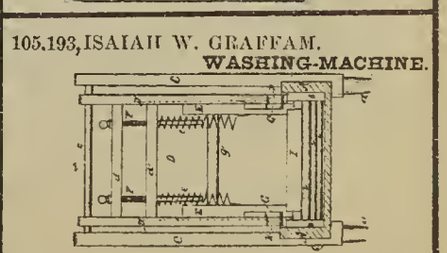


105,191, WILLIAM R. GARDNER.
PESSARIES.

105,192 JOEL GLEASON.
SAD-IRON HANDLE.

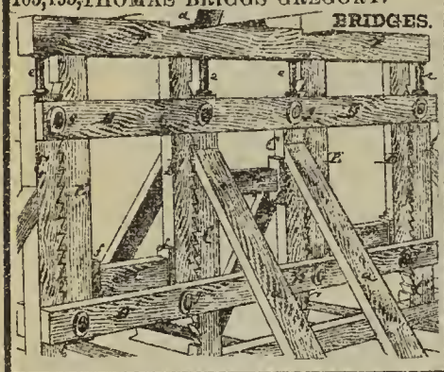


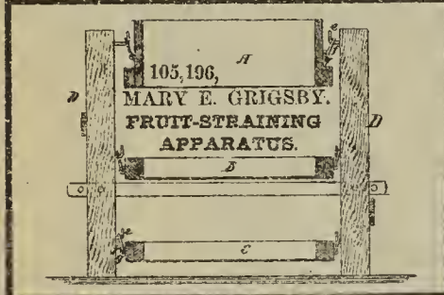
105,193, ISAIAH W. GRAFFAM.
WASHING-MACHINE.



105,194, JOHN GREEN. BOILER-TUBE CLEANERS.

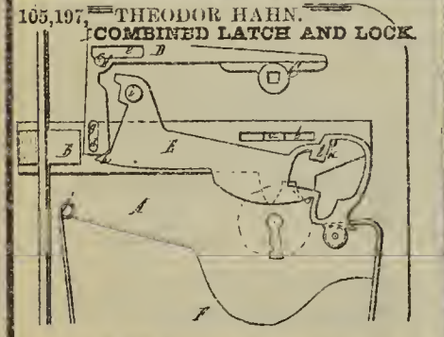
105,195, THOMAS BRIGGS GREGORY. BRIDGES.



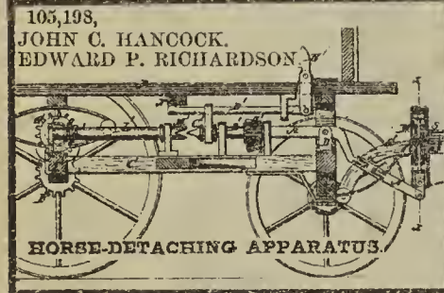


105,196, MARY E. GRIGSBY. FRUIT-STRAINING APPARATUS.

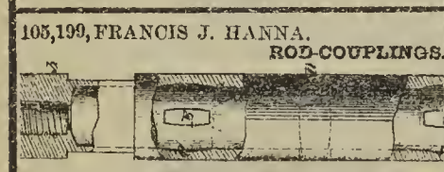
105,197, THEODOR HAHN. COMBINED LATCH AND LOCK.



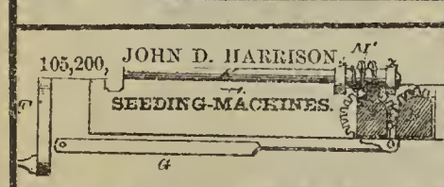
105,198, JOHN C. HANCOCK. EDWARD P. RICHARDSON. HORSE-DETACHING APPARATUS.



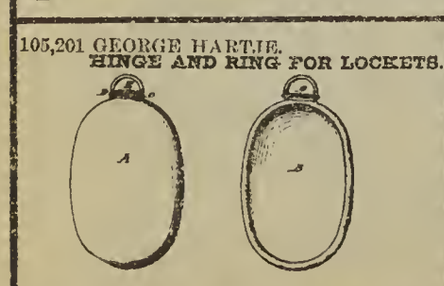
105,199, FRANCIS J. HANNA. ROD-COUPLINGS.



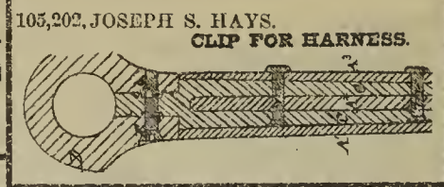
105,200, JOHN D. HARRISON. SEEDING-MACHINES.



105,201 GEORGE HARTJE. HINGE AND RING FOR LOCKETS.

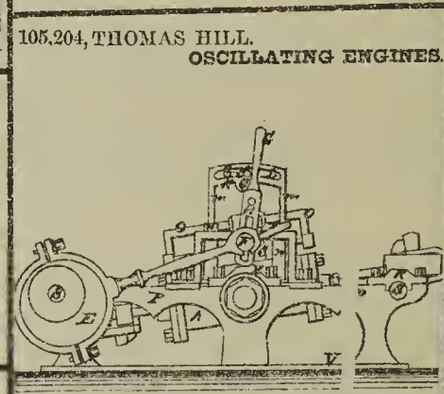


105,202, JOSEPH S. HAYS. CLIP FOR HARNESS.

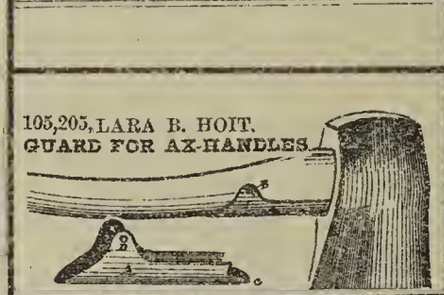


105,203. LUDWIG HERMAN. FIRE-EXTINGUISHERS.

105,204, THOMAS HILL. OSCILLATING ENGINES.

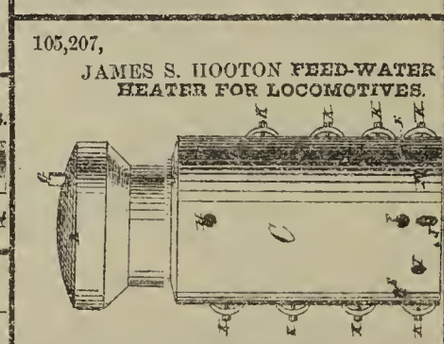


105,205, LARA B. HOIT. GUARD FOR AX-HANDLES.

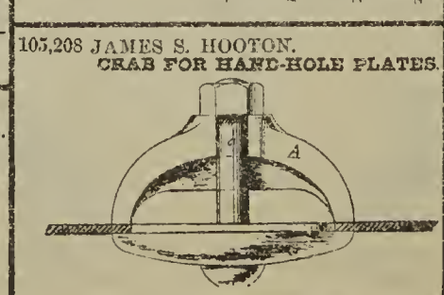


105,206, JOSIAH HONSINGER. SASH-HOLDERS.

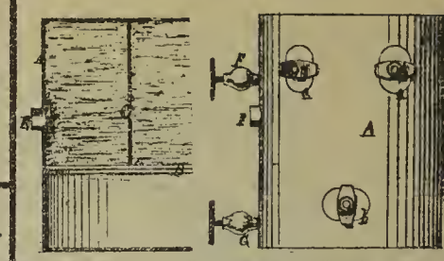
105,207, JAMES S. HOOTON FEED-WATER HEATER FOR LOCOMOTIVES.

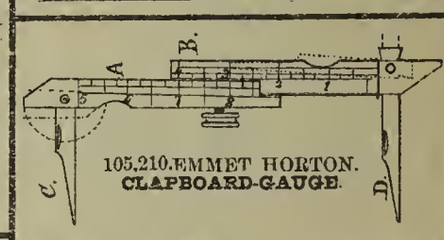


105,208 JAMES S. HOOTON. CRAB FOR HAND-HOLE PLATES.



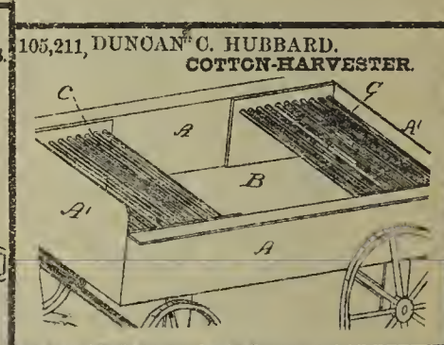
105,209, JAMES S. HOOTON. FEED-WATER FILTERS.



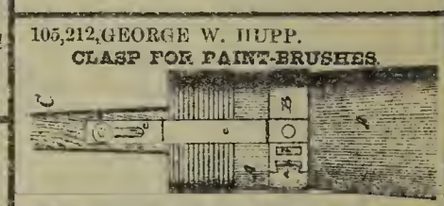


105,210. EMMET HORTON. CLAPBOARD-GAUGE.

105,211, DUNCAN C. HUBBARD. COTTON-HARVESTER.

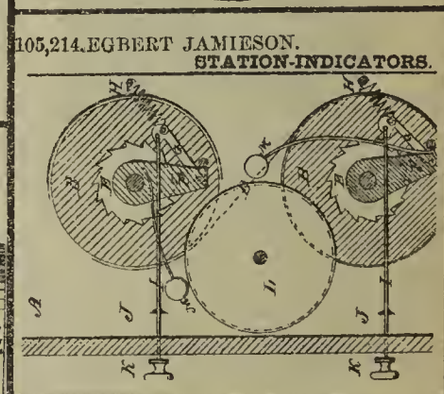


105,212, GEORGE W. HUPP. CLASP FOR PAINT-BRUSHES.

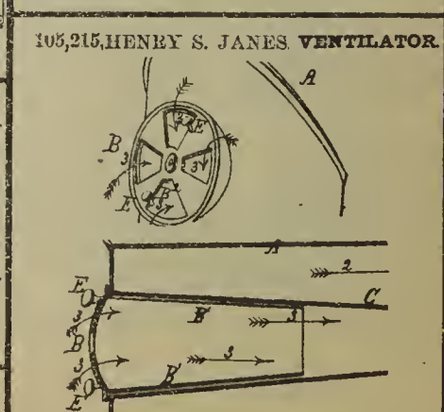


105,213, CLEMENT R. JACOBI. KINDLING-FAGOT.

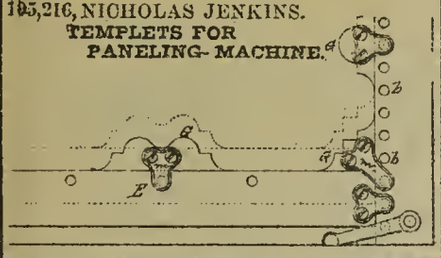
105,214. EGBERT JAMIESON. STATION-INDICATORS.



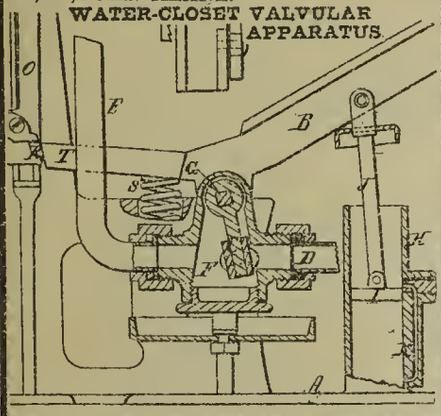
105,215, HENRY S. JANES. VENTILATOR.



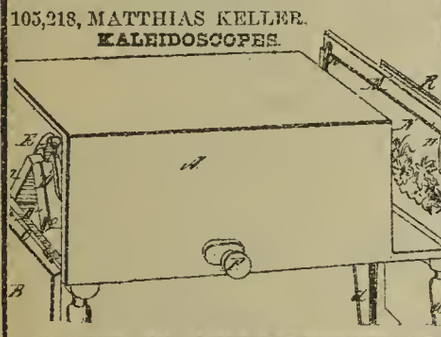
105,216, NICHOLAS JENKINS.
TEMPLETS FOR PANELING-MACHINE.



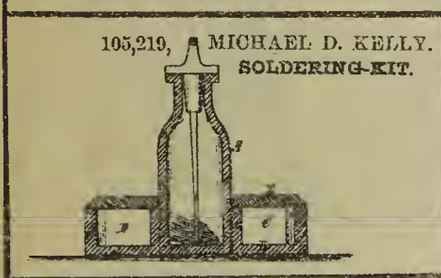
105,217, JOHN KEANE.
WATER-CLOSET VALVULAR APPARATUS.



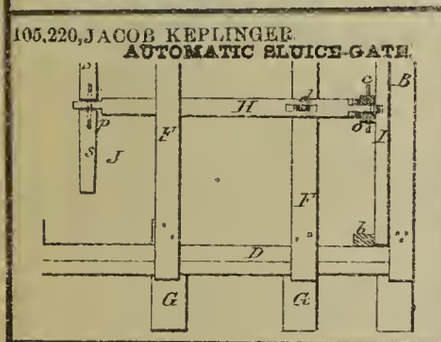
105,218, MATTHIAS KELLER.
KALEIDOSCOPES.



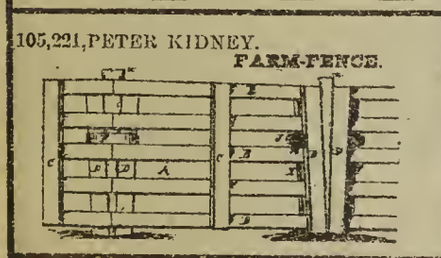
105,219, MICHAEL D. KELLY.
SOLDERING-KIT.



105,220, JACOB KEPLINGER.
AUTOMATIC SLUICE-GATE.

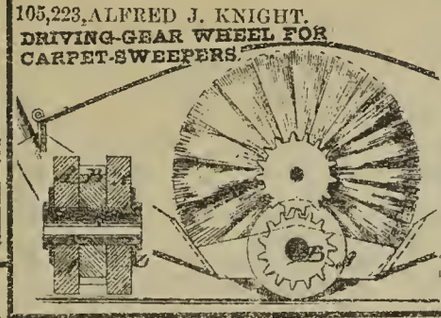


105,221, PETER KIDNEY.
FARM-FENCE.



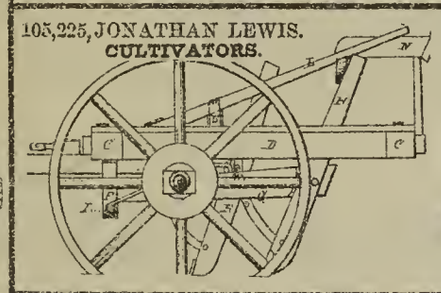
105,222, GEO. W. KING.
FOLDING-SEAT.

105,223, ALFRED J. KNIGHT.
DRIVING-GEAR WHEEL FOR CARPET-SWEEPERS.



105,224, SAMUEL LAIGHTON
FEVER AND AGUE MEDICINE.

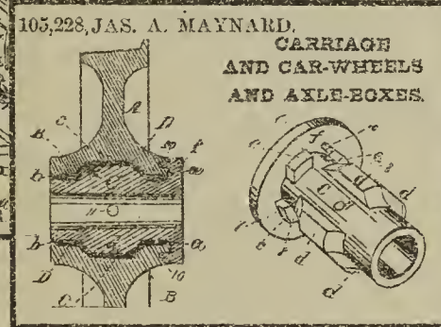
105,225, JONATHAN LEWIS.
CULTIVATORS.



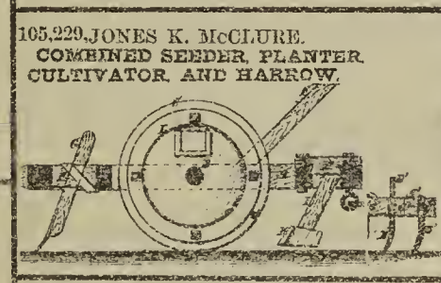
105,226, SCHUYLER W. MAHAN.
LEMON FRUIT SIRUP.

105,227
SCHUYLER W. MAHAN. RASPBERRY AND STRAWBERRY FRUIT SIRUP

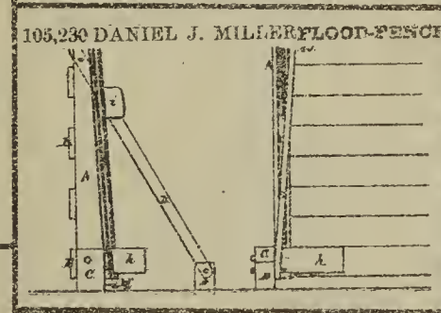
105,228, JAS. A. MAYNARD.
CARRIAGE AND CAR-WHEELS AND AXLE-BOXES.



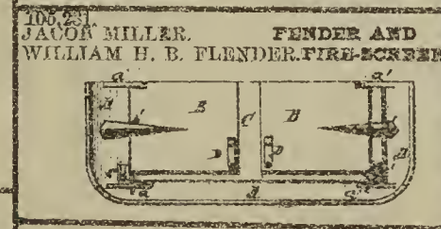
105,229, JONES K. McCLURE.
COMBINED SEEDER, PLANTER, CULTIVATOR, AND HARROW.



105,230 DANIEL J. MILLER. FLOOD-FENCE.

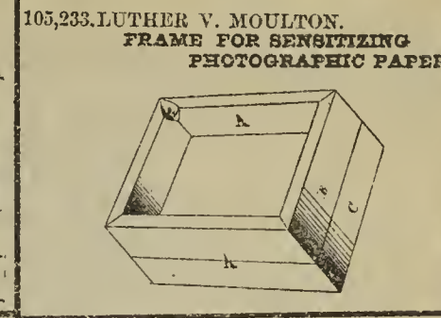


105,231
JACOB MILLER. WILLIAM H. B. FLENDER. FENDER AND FIRE-SCREEN

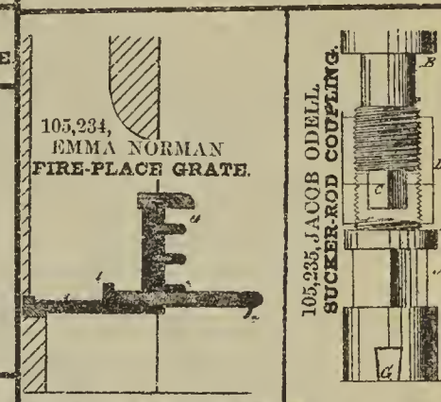


105,232, WILLIAM MILLER.
WEATHER-STRIP.

105,233. LUTHER V. MOULTON.
FRAME FOR SENSITIZING PHOTOGRAPHIC PAPER.

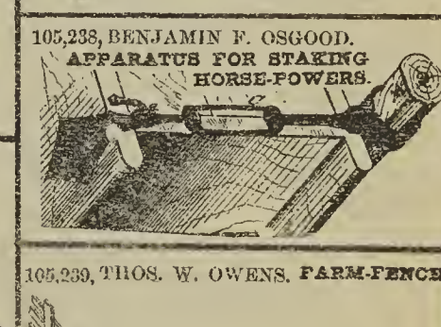


105,234,
EMMA NORMAN
FIRE-PLACE GRATE.

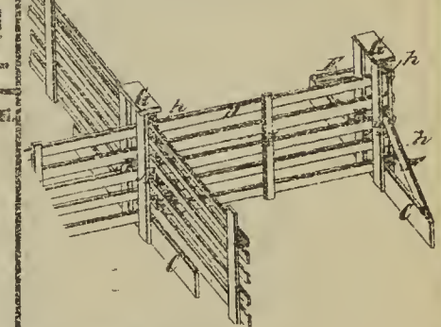


105,235, JACOB ODELL.
SUCKER-ROD COUPLING.

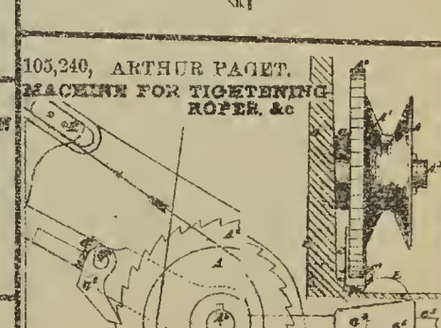
105,236. CHARLES M. O'HARA.
SHOE-STRING FASTENING.



105,237,
MATHEW O'REARDON.
PEN-RACKS.

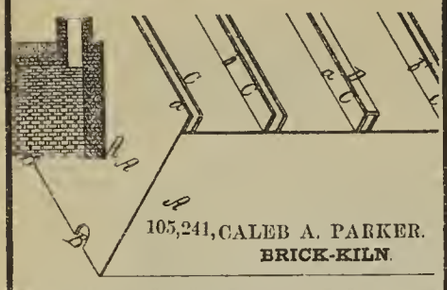


105,238, BENJAMIN F. OSGOOD.
APPARATUS FOR STAKING HORSE-POWERS.



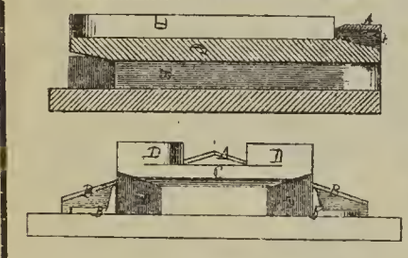
105,239, THOS. W. OWENS. FARM-FENCE.

105,240, ARTHUR PAGET.
MACHINE FOR TIGHTENING ROPES, &c.

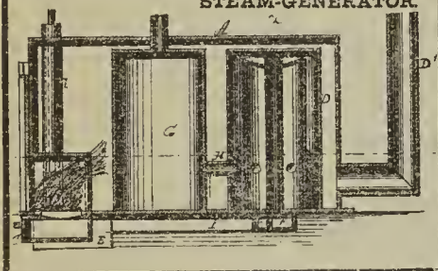


105,241, CALEB A. PARKER. BRICK-KILN.

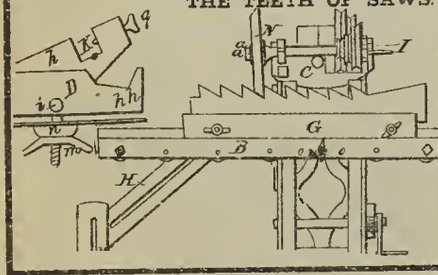
105,242, F. M. PATTERSON, H. P. MILLER. HARNESS-MAKERS' EDGING-TOOL.



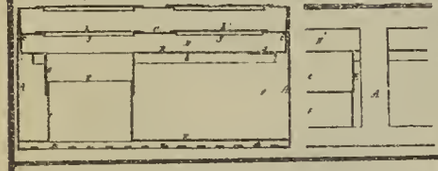
105,243, ROBERT PATTERSON. STEAM-GENERATOR.



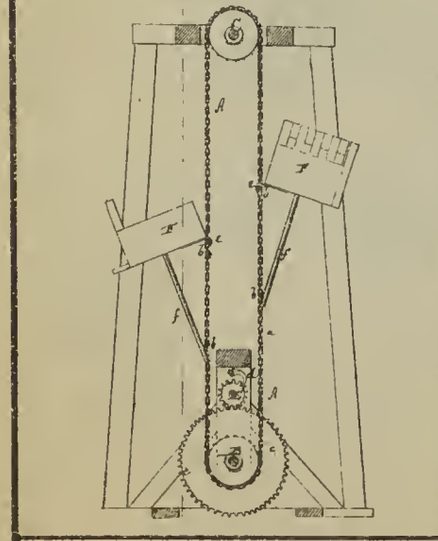
105,244, HARFORD J. PERKINS. MACHINE FOR SHARPENING THE TEETH OF SAWS.



105,245, E. PHILLIPS. SAD-IRON HEATER.

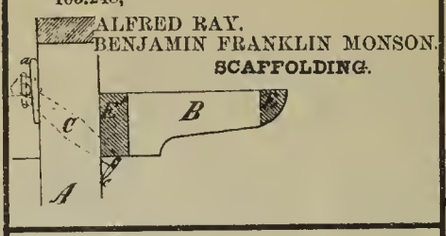


105,246. J. POWERS. HOD ELEVATOR.

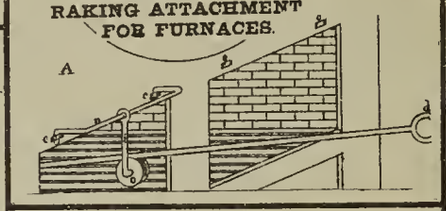


105,247, WM. PYLE. THE MANUFACTURE OF LEATHER.

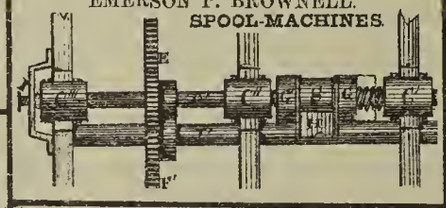
105,248, ALFRED RAY, BENJAMIN FRANKLIN MONSON. SCAFFOLDING.



105,249 JOHN RICE. RAKING ATTACHMENT FOR FURNACES.



105,250 JOHN F. C. RIDER, EMERSON P. BROWNELL. SPOOL-MACHINES.



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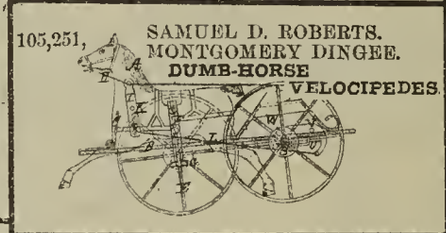

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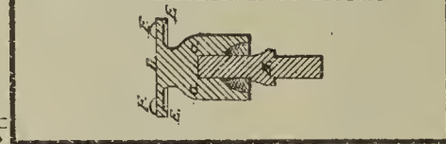
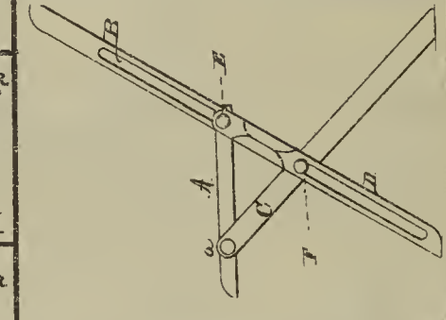


105,253, AUGUSTA M. RODGERS. FOLDING CHAIR.



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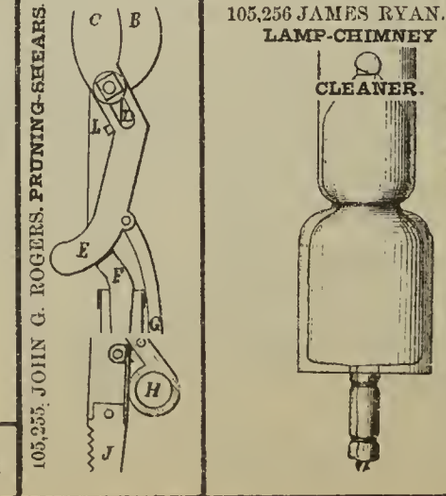
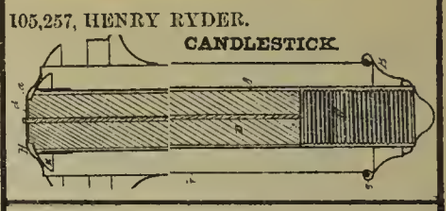
105,255, JOHN G. ROGERS. PRUNING-SHEARS.



105,256 JAMES RYAN. LAMP-CHIMNEY CLEANER.

105,257, HENRY RYDER. CANDLESTICK.



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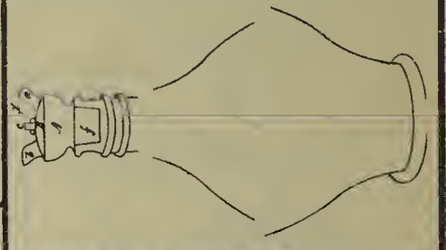
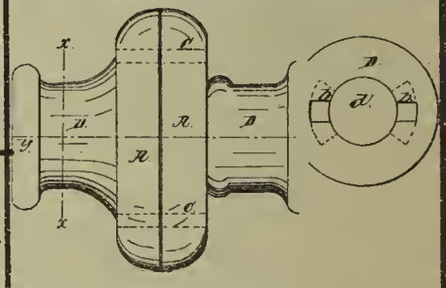
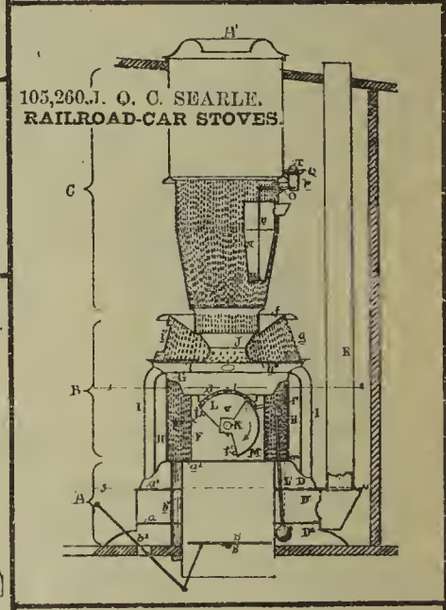


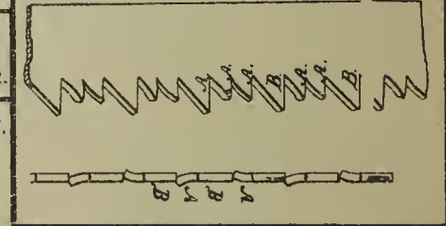
105,259, SILAS C. SCHOFIELD. COUPLING FOR TUMBLING-SHAFTS.



105,260, J. Q. C. SEARLE. RAILROAD-CAR STOVES.



105,261, SIMON W. SHAILER. SAWS.



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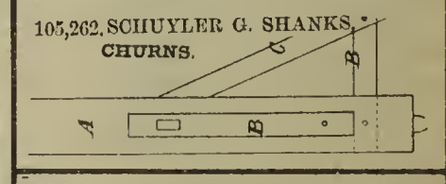
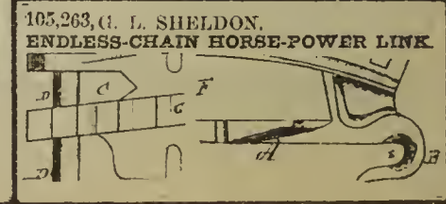


105,263, G. L. SHELDON. ENDLESS-CHAIN HORSE-POWER LINK.



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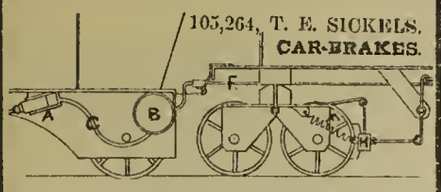
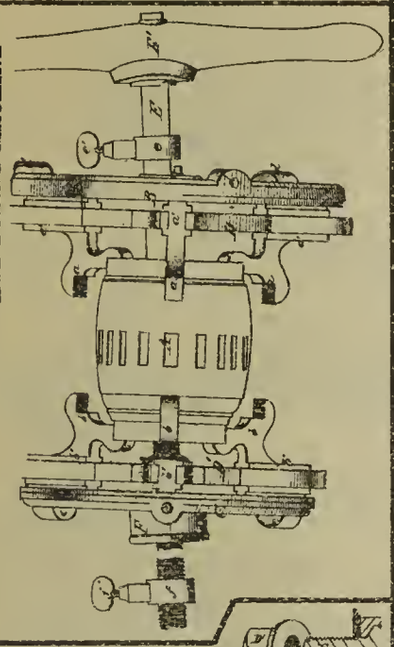
CAR-BRAKES.

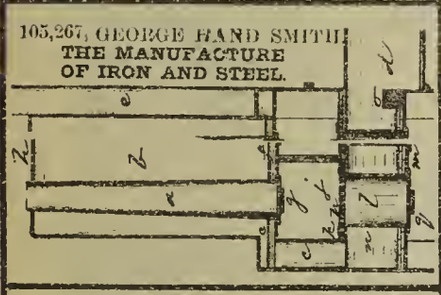


105,265, ALBERT R. SILVER.
HUB BORING MACHINE

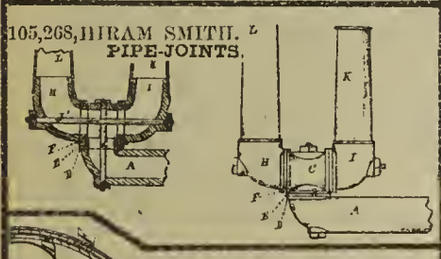


105,266, ALFRED E. SMITH.
CARRIAGE-AXLES.

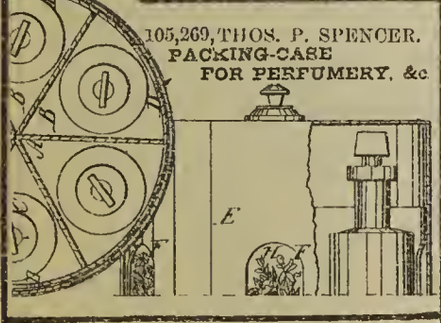
105,267, GEORGE HAND SMITH.
THE MANUFACTURE
OF IRON AND STEEL.



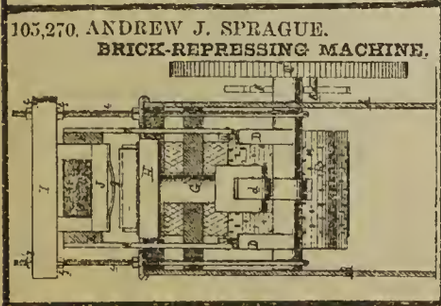
105,268, HIRAM SMITH.
PIPE-JOINTS.



105,269, THOS. P. SPENCER.
PACKING-CASE
FOR PERFUMERY, &c



105,270, ANDREW J. SPRAGUE.
BRICK-REPRESSING MACHINE.



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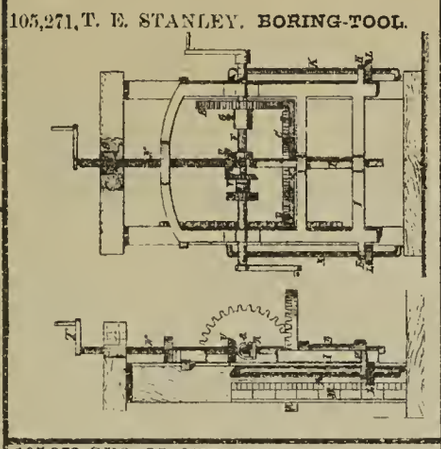

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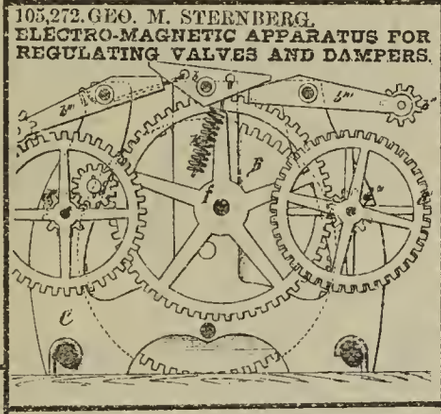
ELECTRO-MAGNETIC APPARATUS FOR
REGULATING VALVES AND DAMPERS.



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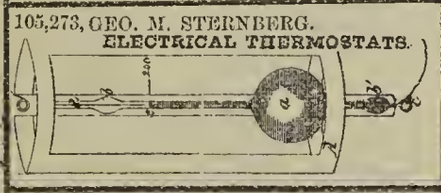
ELECTRICAL THERMOSTATS.



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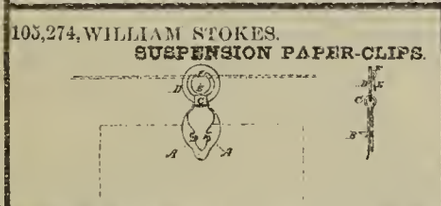
SUSPENSION PAPER-CLIPS.



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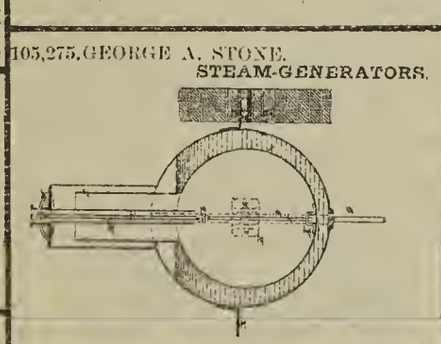

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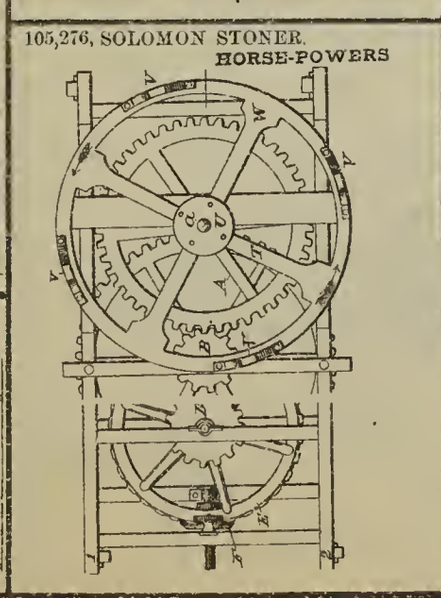
HORSE-POWERS



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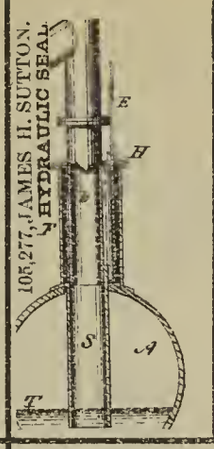
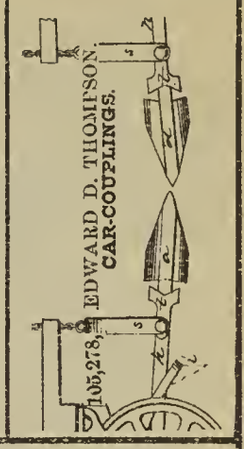
HYDRAULIC SEAL.



105,278, EDWARD D. THOMPSON.
CAR-COUPLINGS.



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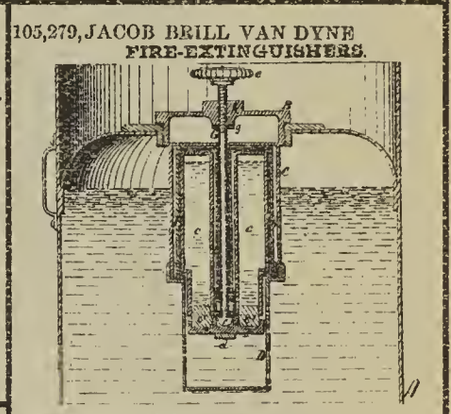
FIRE-EXTINGUISHERS.



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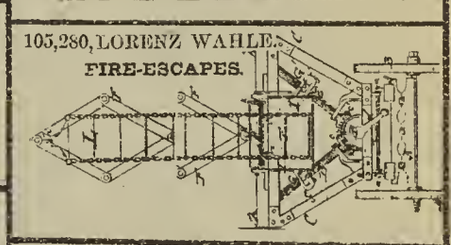
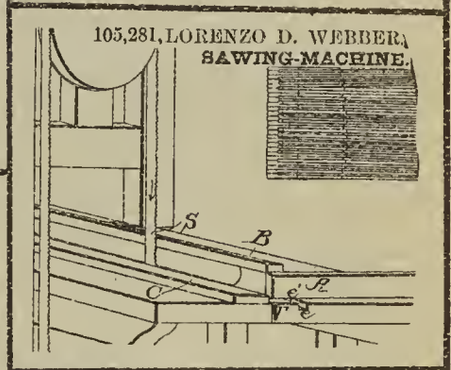
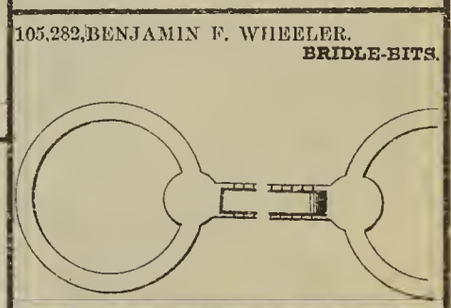
FIRE-ESCAPES.



105,281, LORENZO D. WEBBER.
SAWING-MACHINE.

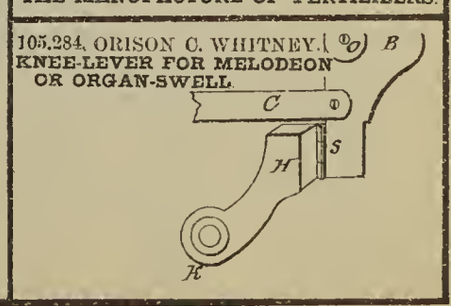


105,282, BENJAMIN F. WHEELER.
BRIDLE-BITS.

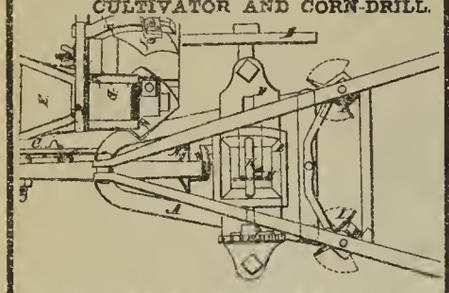


105,283, EXUM his × mark WHITLEY.
THE MANUFACTURE OF FERTILIZERS.

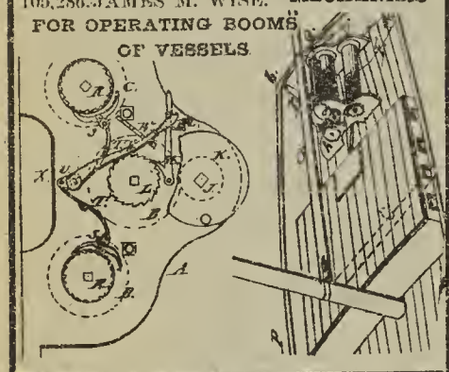
105,284, ORISON C. WHITNEY.
KNEE-LEVER FOR MELODEON
OR ORGAN-SWELL.



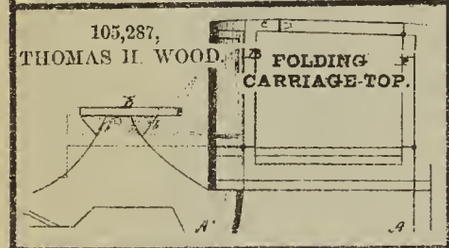
105,285. CAMDEN L. WILCOX. COMBINED CULTIVATOR AND CORN-DRILL.



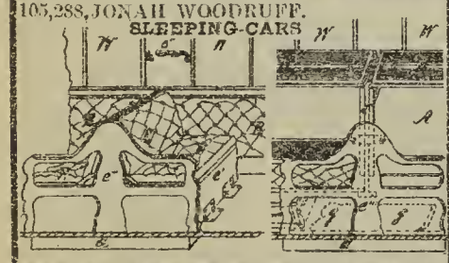
105,286. JAMES M. WISE. MECHANISM FOR OPERATING BOOMS OF VESSELS.



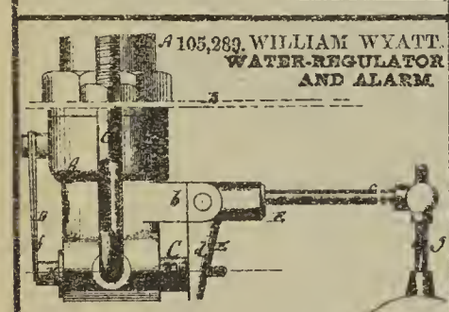
105,287, THOMAS H. WOOD. FOLDING CARRIAGE-TOP.



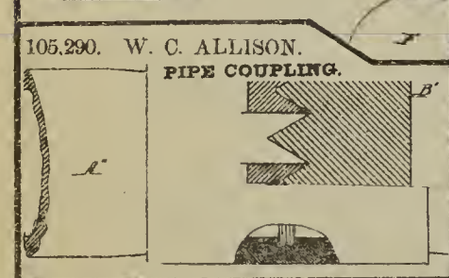
105,288, JONAH WOODRUFF. SLEEPING-CARS



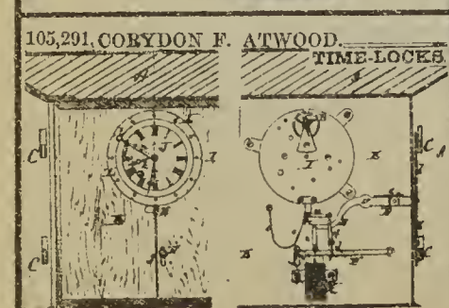
105,289. WILLIAM WYATT. WATER-REGULATOR AND ALARM.



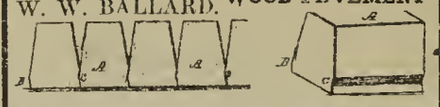
105,290. W. C. ALLISON. PIPE COUPLING.



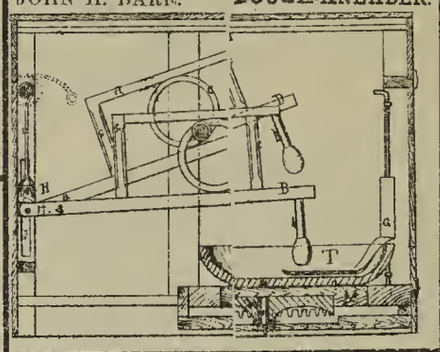
105,291. CORYDON F. ATWOOD. TIME-LOCKS.



105,292 W. W. BALLARD. WOOD PAVEMENT



105,293. JOHN H. BARR. JACOB H. SMITH. DOUGH-KNEADER.



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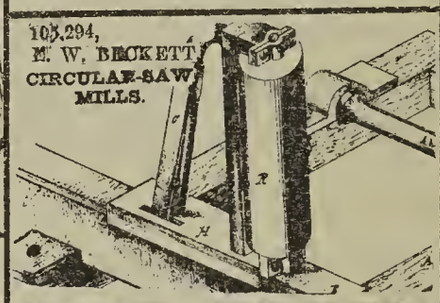
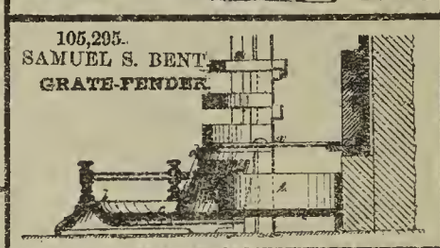
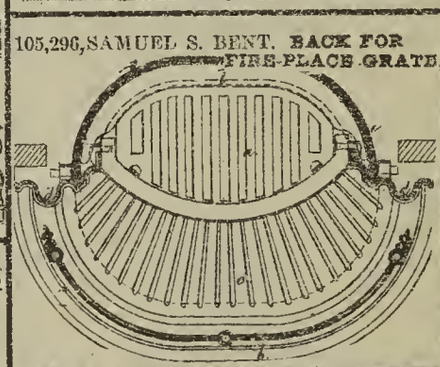


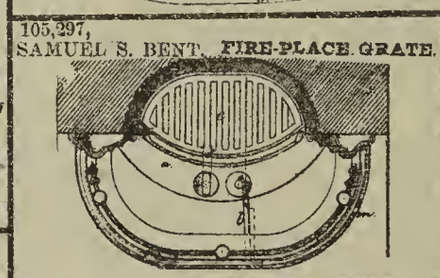
105,295. SAMUEL S. BENT. GRATE-FENDER.



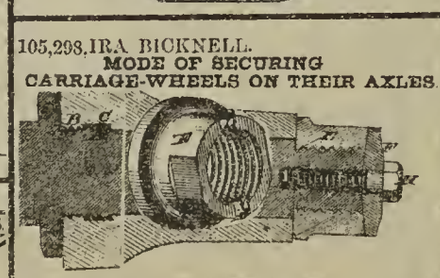
105,296, SAMUEL S. BENT. BACK FOR FIRE-PLACE GRATE



105,297, SAMUEL S. BENT. FIRE-PLACE GRATE.



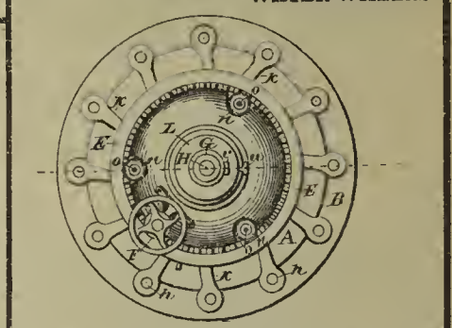
105,298. IRA BICKNELL. MODE OF SECURING CARRIAGE-WHEELS ON THEIR AXLES.



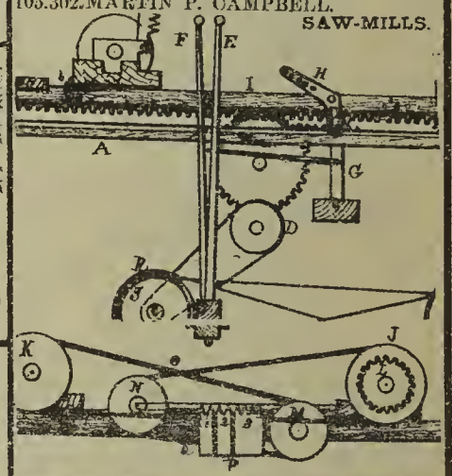
105,299. GEORGE W. BISHOP. SASH-HOLDERS.

105,300. DAVID W. BOWDOIN. ELASTIC TRANSFER PRINTING.

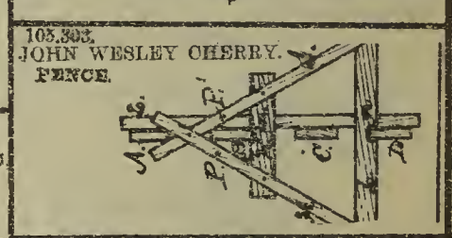
105,301. JAMES CAMPBELL. WATER-WHEELS



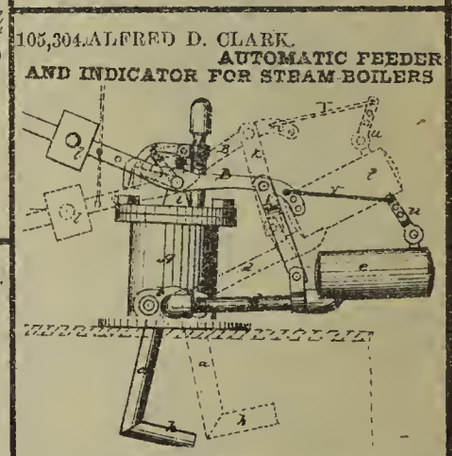
105,302. MARTIN P. CAMPBELL. SAW-MILLS.



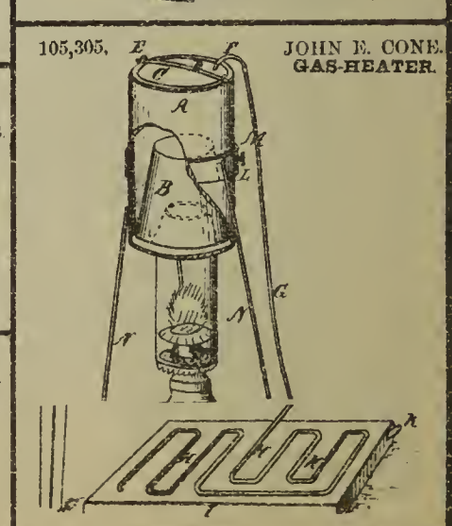
105,303. JOHN WESLEY CHERRY. FENCE.



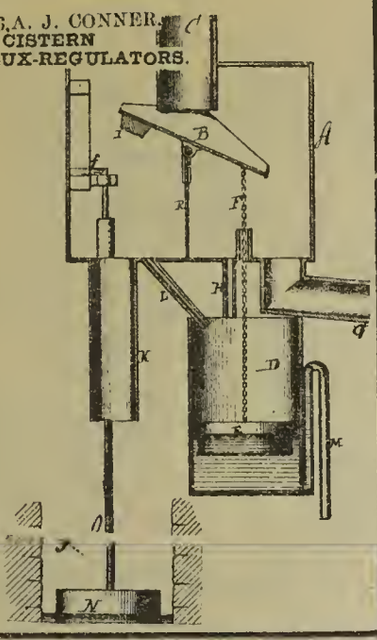
105,304. ALFRED D. CLARK. AUTOMATIC FEEDER AND INDICATOR FOR STEAM-BOILERS



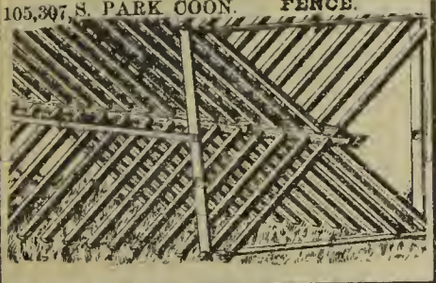
105,305. JOHN E. CONE. GAS-HEATER.



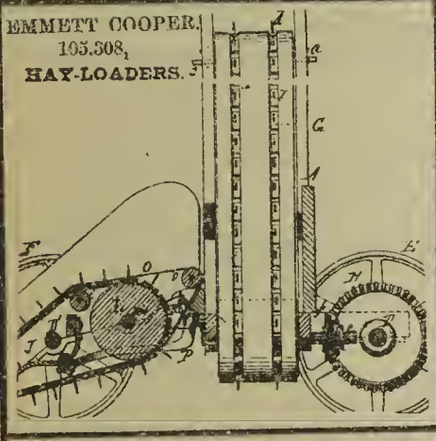
105,306, A. J. CONNER.
CISTERN INFLUX-REGULATORS.



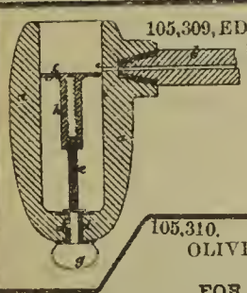
105,307, S. PARK COON. FENCE.



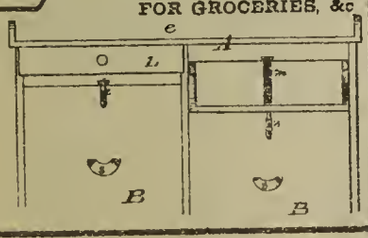
EMMETT COOPER.
105,308,
HAY-LOADERS.



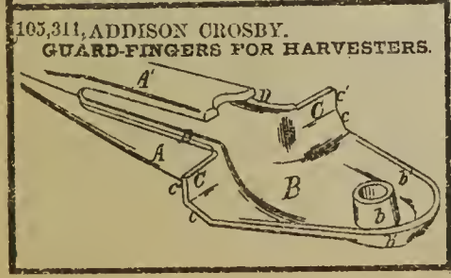
105,309, EDWARD COTTAM.
SMOKING-PIPE.



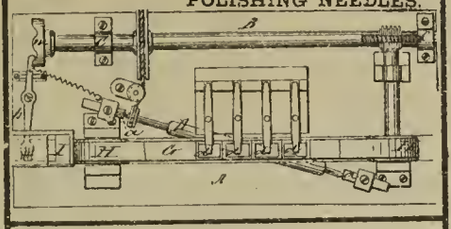
105,310.
OLIVER R. COWGILL.
RESERVATORY FOR GROCERIES, &c



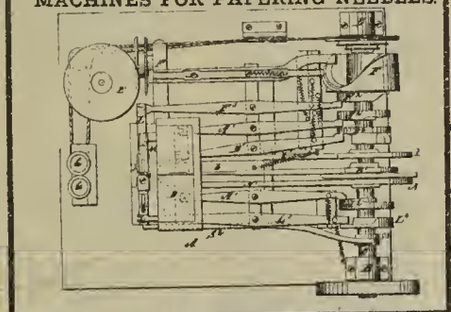
105,311, ADDISON CROSBY.
GUARD-FINGERS FOR HARVESTERS.



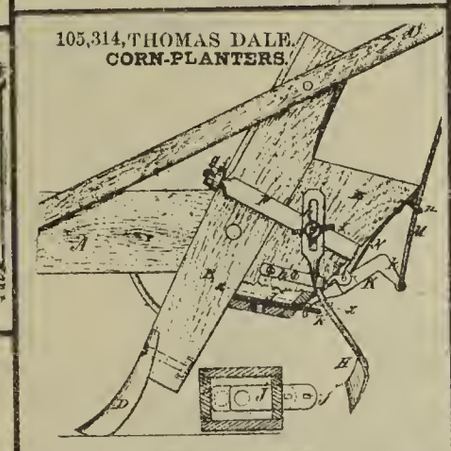
105,312, C. O. CROSBY. MACHINES FOR POLISHING NEEDLES.



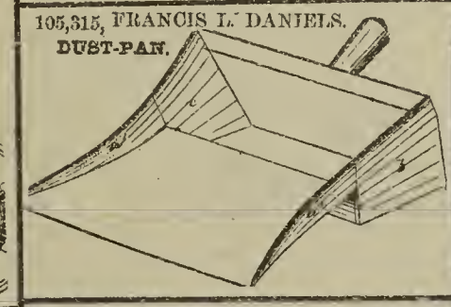
105,313, C. O. CROSBY.
MACHINES FOR PAPERING NEEDLES.



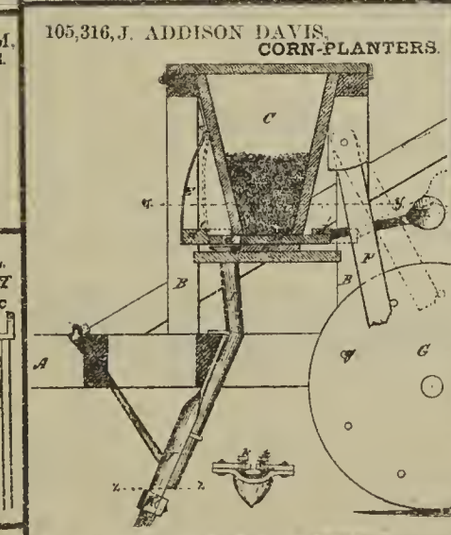
105,314, THOMAS DALE.
CORN-PLANTERS.



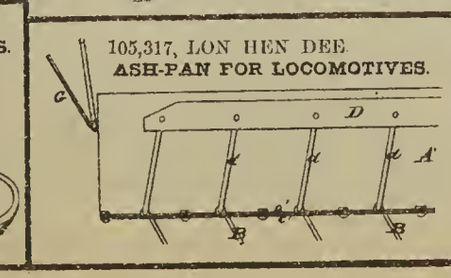
105,315, FRANCIS L. DANIELS.
DUST-PAN.



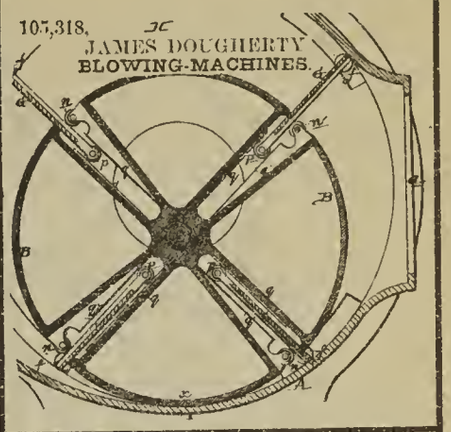
105,316, J. ADDISON DAVIS.
CORN-PLANTERS.



105,317, LON HEN DEE.
ASH-PAN FOR LOCOMOTIVES.



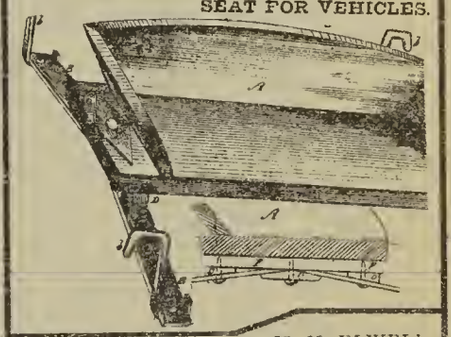
105,318, JAMES DOUGHERTY
BLOWING-MACHINES.



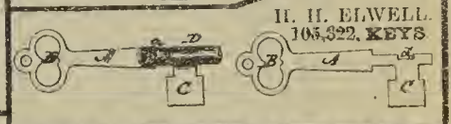
105,319, ALFRED DUVALL.
TREATING VITRIOLIZED PHOSPHATES.

105,320, A. K. EATON.
THE MANUFACTURE OF TOOLS FOR CUTTING, GRINDING, AND POLISHING.

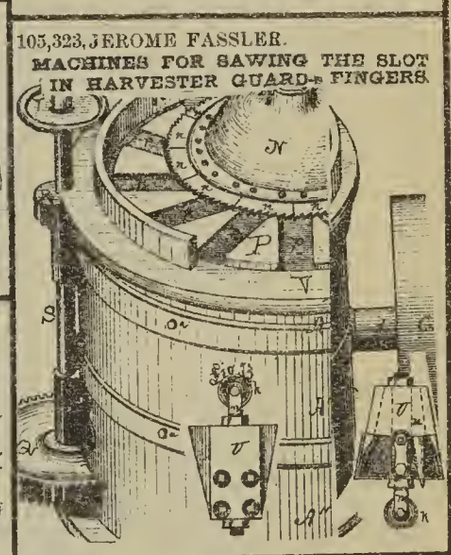
105,321, WILLIAM H. ELLIOTT.
SEAT FOR VEHICLES.



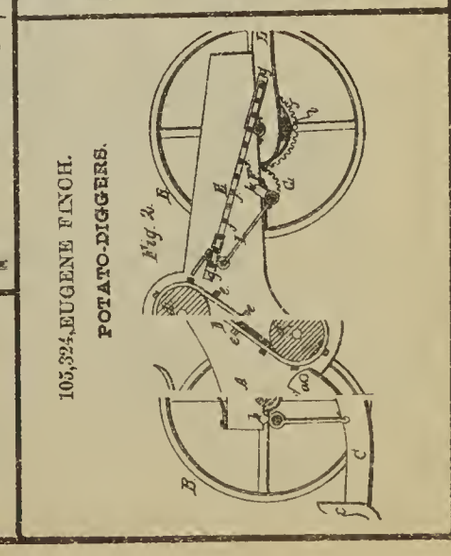
H. H. ELWELL.
105,322, KEYS.



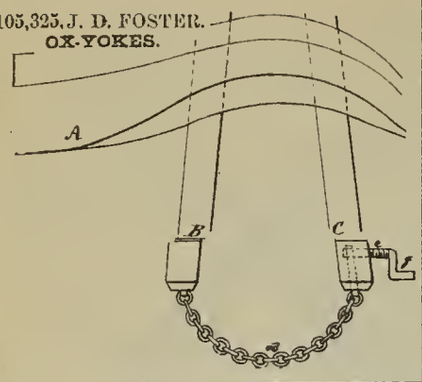
105,323, JEROME FASSLER.
MACHINES FOR SAWING THE SLOT IN HARVESTER GUARD-FINGERS.



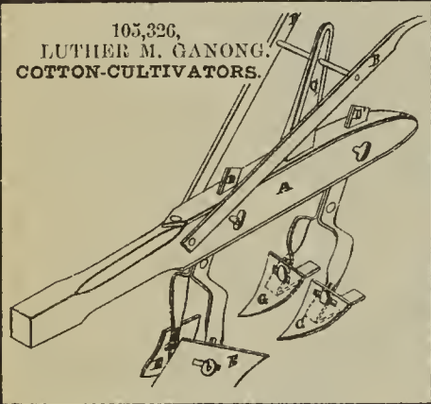
105,324, EUGENE FINCH.
POTATO-DIGGERS.



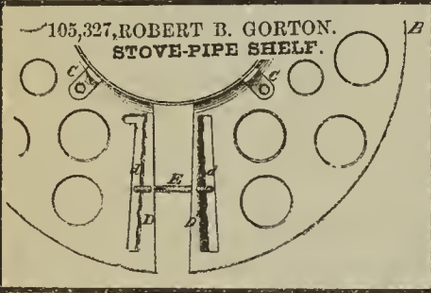
105,325, J. D. FOSTER. OX-YOKES.



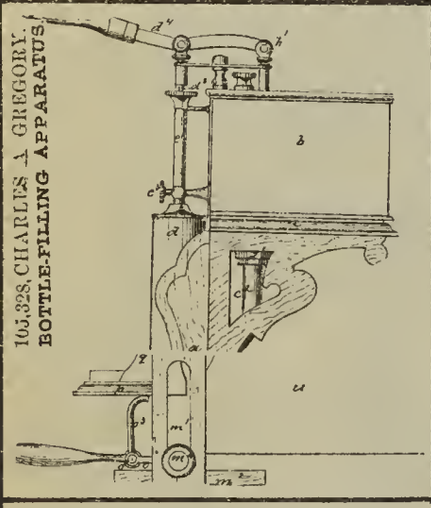
105,326, LUTHER M. GANONG. COTTON-CULTIVATORS.



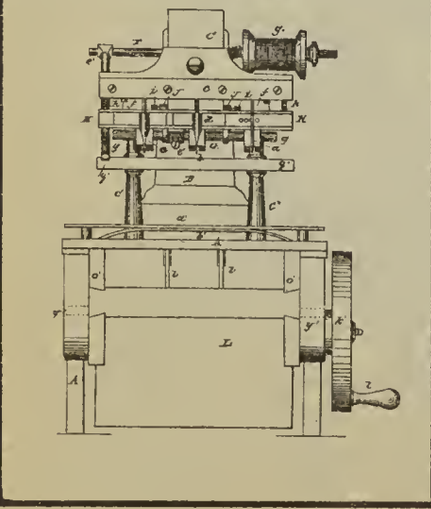
105,327, ROBERT B. GORTON. STOVE-PIPE SHELF.



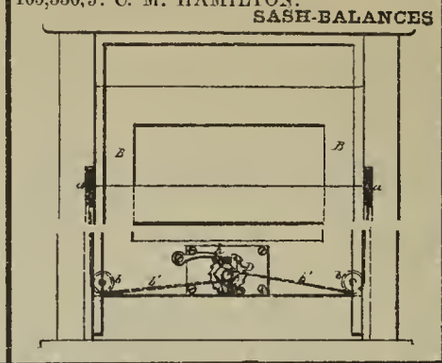
105,328, CHARLES A. GREGORY. BOTTLE-FILLING APPARATUS.



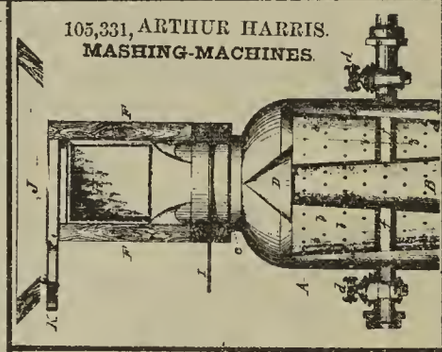
105,329. LUTHER HALL. MACHINE FOR SEWING BOOKS.



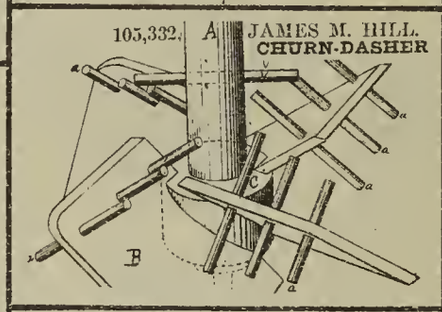
105,330, J. C. M. HAMILTON. SASH-BALANCES



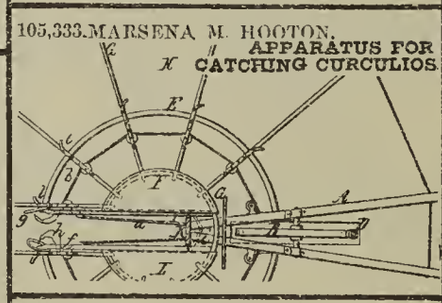
105,331, ARTHUR HARRIS. MASHING-MACHINES.



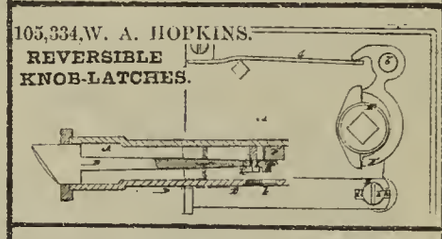
105,332, JAMES M. HILL. CHURN-DASHER



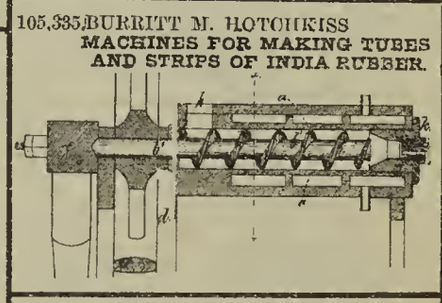
105,333, MARSENA M. HOOTON. APPARATUS FOR CATCHING CURCULIOS.



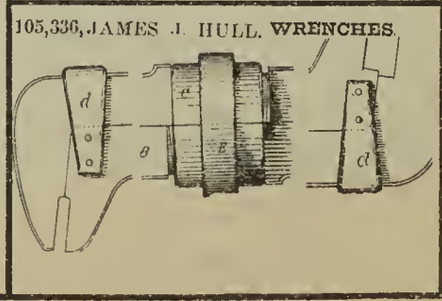
105,334, W. A. HOPKINS. REVERSIBLE KNOB-LATCHES.



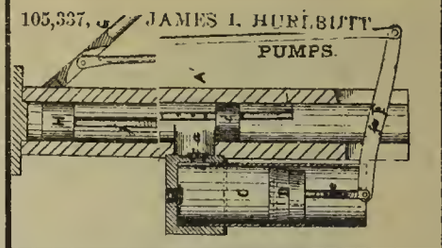
105,335, BURRITT M. HOTCHKISS MACHINES FOR MAKING TUBES AND STRIPS OF INDIA RUBBER.



105,336, JAMES J. HULL. WRENCHES.

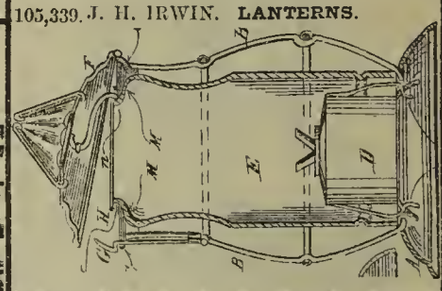


105,337, JAMES I. HURLBUTT. PUMPS.

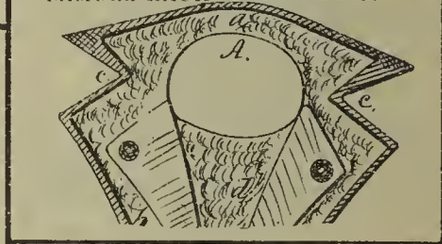


105,338. J. W. HYATT, JR., AND I. S. HYATT. TREATING AND MOLDING PYROXYLINE

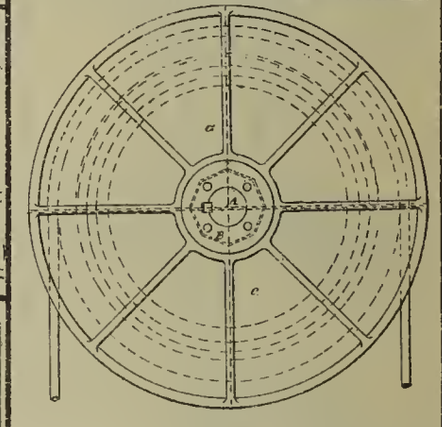
105,339. J. H. IRWIN. LANTERNS.



105,340, JOHN H. KAPPELHOFF. SAMUEL RAUH. FUR COLLARS.

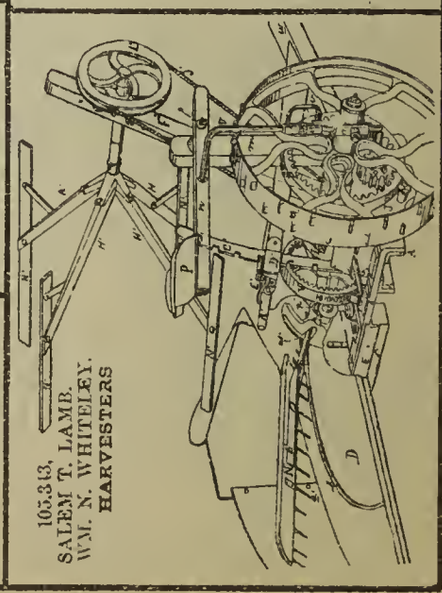


105,341, WM. KELSEY. DOUBLE-GRIPPING FLANGED DRUMS, PULLEYS, AND WHEELS.

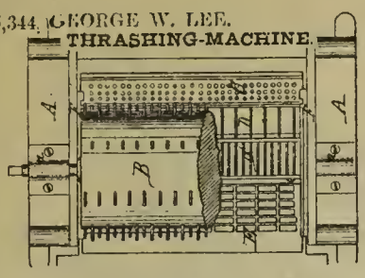


105,342. JOHN KNAPP. PRESERVING EGGS.

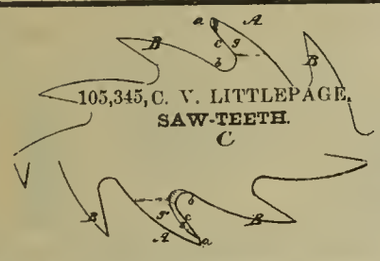
105,343, SALEM T. LAMB. WM. N. WHITELEY. HARVESTERS



105,344, GEORGE W. LEE.
THRASHING-MACHINE.

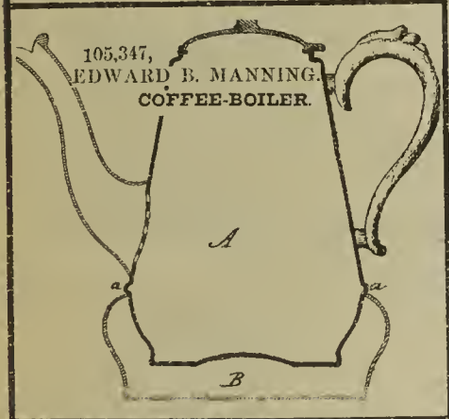


105,345, C. V. LITTLEPAGE.
SAW-TEETH.

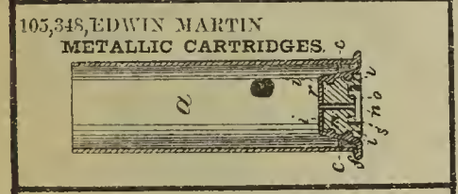


105,346, WM. W. LYMAN.
CAN-OPENERS.

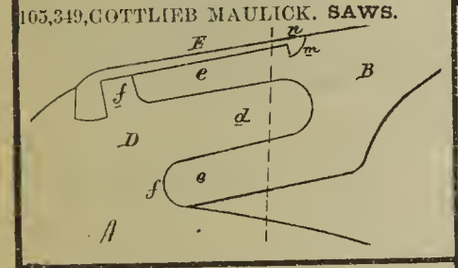
105,347,
EDWARD B. MANNING.
COFFEE-BOILER.



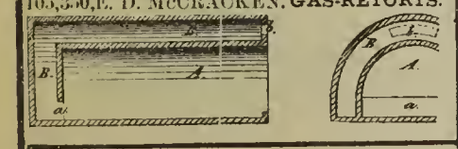
105,348, EDWIN MARTIN
METALLIC CARTRIDGES.



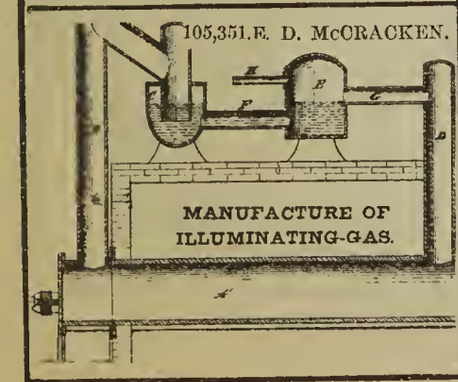
105,349, GOTTLIEB MAULICK. SAWS.



105,350, E. D. McCRACKEN. GAS-RETORTS.

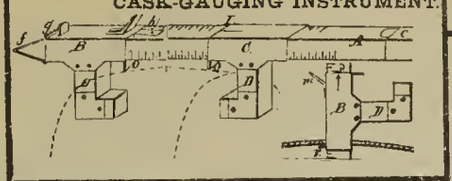


105,351, E. D. McCRACKEN.

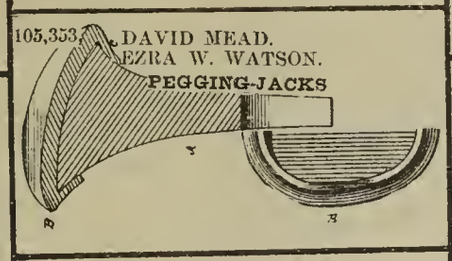


MANUFACTURE OF
ILLUMINATING-GAS.

105,352, E. R. McKEAN
CASK-GAUGING INSTRUMENT.

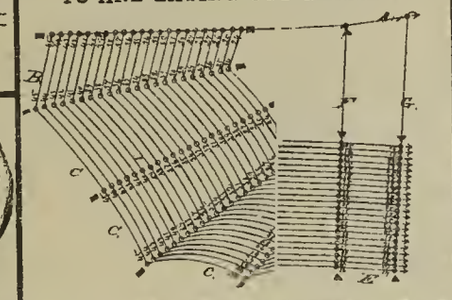


105,353, DAVID MEAD.
EZRA W. WATSON.
PEGGING-JACKS

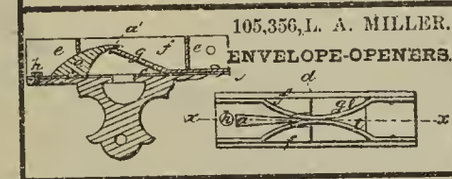


105,354, W. H. MERRICK.
PREPARING PAPER PULP FOR
PACKING AND TRANSPORTATION.

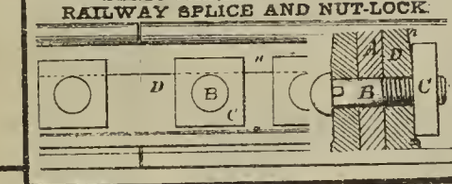
105,355 JONATHAN J. MILLER.
APPLYING MEASUREMENTS
TO AND LAYING OUT GARMENTS.



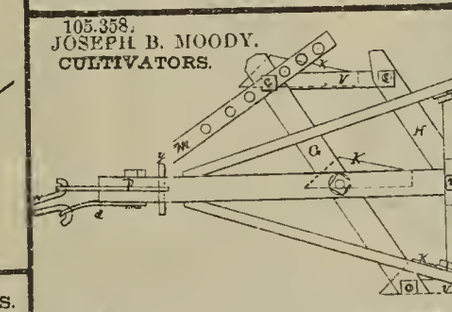
105,356, L. A. MILLER.
ENVELOPE-OPENERS.

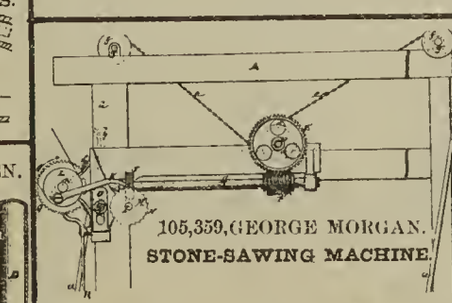


105,357, JOHN MINER.
SILAS MERRICK.
RAILWAY SPLICE AND NUT-LOCK.



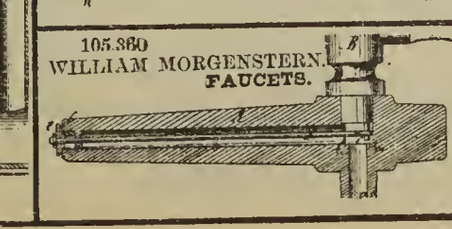
105,358.
JOSEPH B. MOODY.
CULTIVATORS.





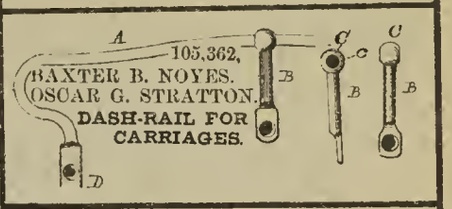
105,359, GEORGE MORGAN.
STONE-SAWING MACHINE.

105,360
WILLIAM MORGENSTERN.
FAUCETS.

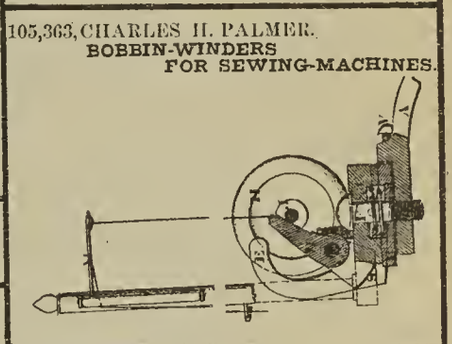


105,361, ELIZA DEXTER MURFEY.
MATERIAL FOR PACKINGS
AND BEARINGS.

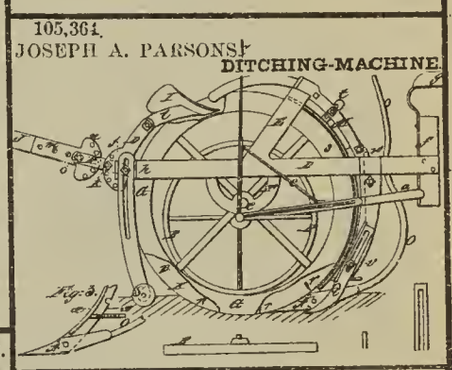
105,362,
BAXTER B. NOYES.
OSCAR G. STRATTON.
DASH-RAIL FOR
CARRIAGES.



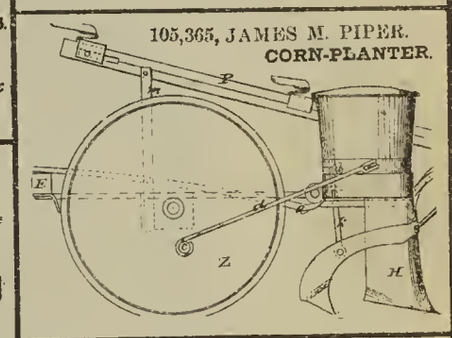
105,363, CHARLES H. PALMER.
BOBBIN-WINDERS
FOR SEWING-MACHINES.



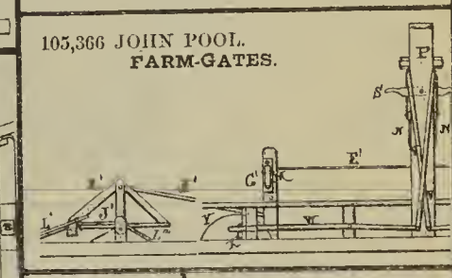
105,364.
JOSEPH A. PARSONS.
DITCHING-MACHINE.



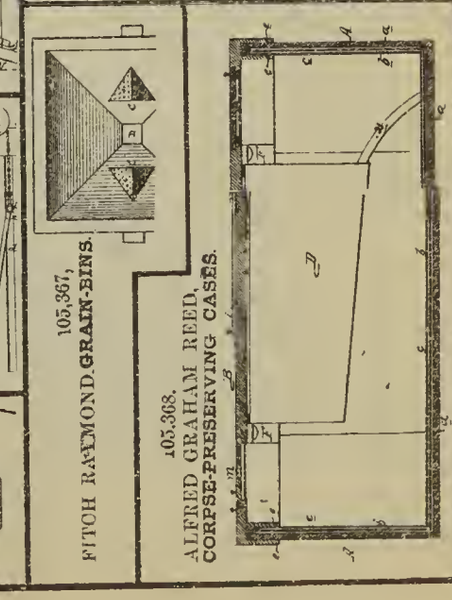
105,365, JAMES M. PIPER.
CORN-PLANTER.



105,366 JOHN POOL.
FARM-GATES.

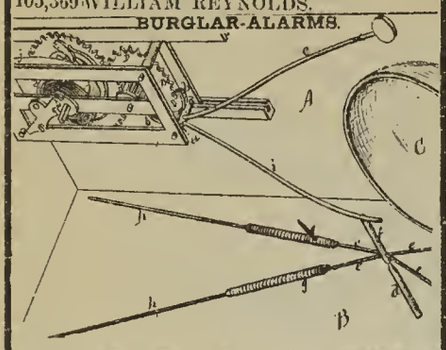


105,367,
FITCH RAYMOND. GRAIN-BINS.

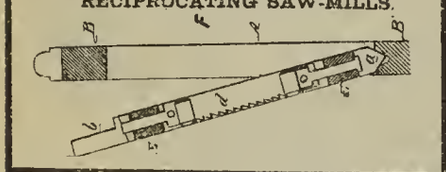


105,368.
ALFRED GRAHAM REED.
CORPSE-PRESERVING CASES.

105,369 WILLIAM REYNOLDS.
BURGLAR-ALARMS.

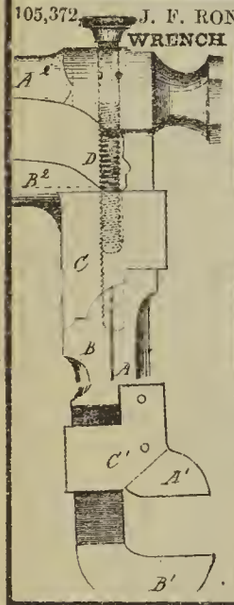


105,370, EDWARD RHODES.
RECIPROCATING SAW-MILLS.

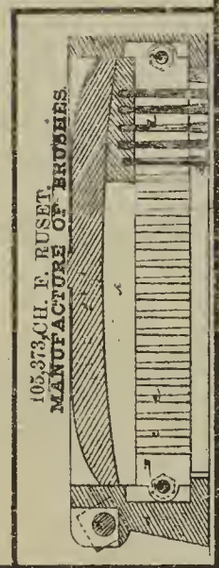


105,371, STEPHEN M. RICHARDS.
RAILWAY-TRACKS.

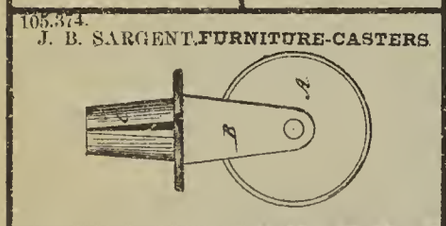
105,372, J. F. RONAN. JR.
WRENCH.



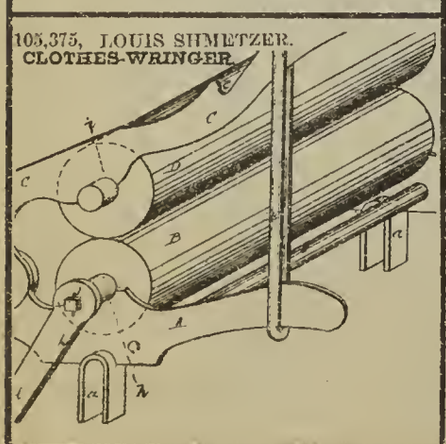
105,373, H. F. RUSET.
MANUFACTURE OF BRUSHES.

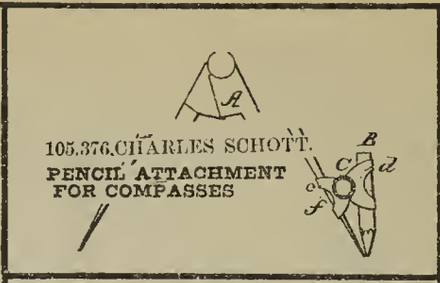


105,374.
J. B. SARGENT. FURNITURE-CASTERS.



105,375, LOUIS SHMETZER.
CLOTHES-WRINGER.



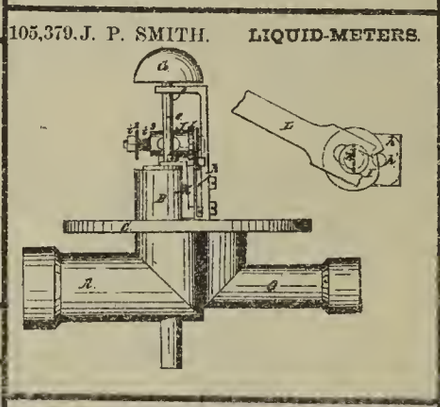


105,376. CHARLES SCHOTT.
PENCIL ATTACHMENT FOR COMPASSES

105,377, ISAAC C. SHULER. COFFINS.

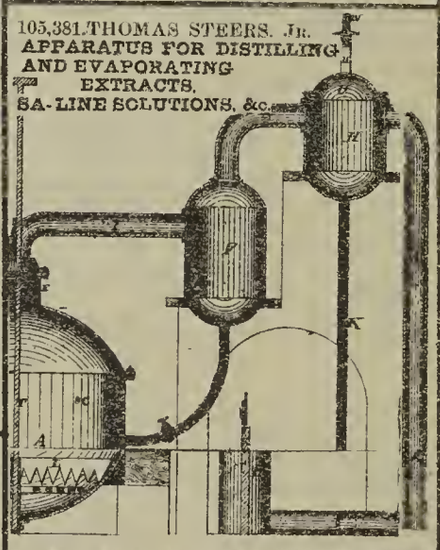
105,378,
WARREN A. SIMONDS.
CARBURETING APPARATUS.

105,379. J. P. SMITH. LIQUID-METERS.

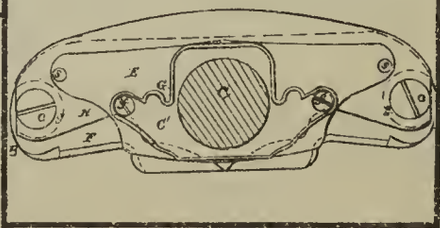


WM. SMITH.
105,380, H. D. ROGERS. METHOD OF PRODUCING PRICE-CURRENT SHEETS.

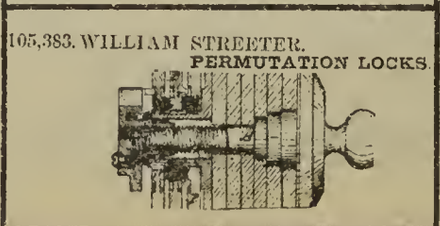
105,381. THOMAS STEERS. JR.
APPARATUS FOR DISTILLING AND EVAPORATING EXTRACTS, SALINE SOLUTIONS, &c.



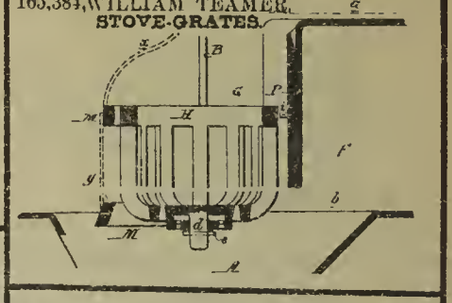
105,382 EDWIN B. STIMPSON. PRESSES FOR PERFORATING SHOE-TIPS.



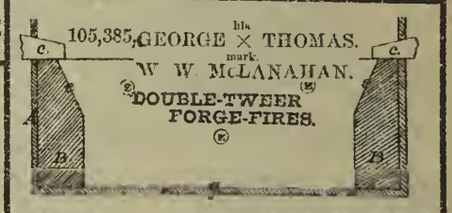
105,383. WILLIAM STREETER.
PERMUTATION LOCKS.



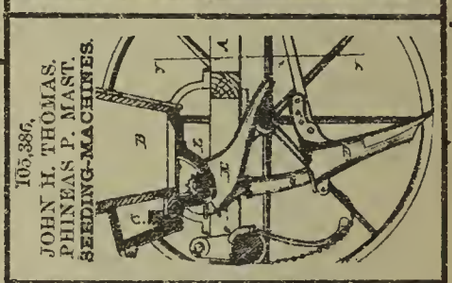
105,384, WILLIAM TEAMER.
STOVE-GRATES.



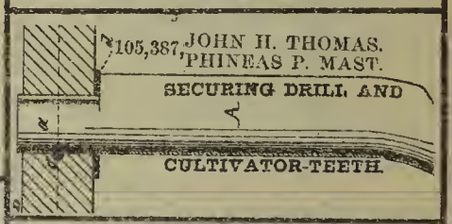
105,385, GEORGE his × mark THOMAS.
W. W. McLANAHAN.
DOUBLE-TWEER FORGE-FIRES.



105,386,
JOHN H. THOMAS.
PHINEAS P. MAST.
SEEDING-MACHINES.

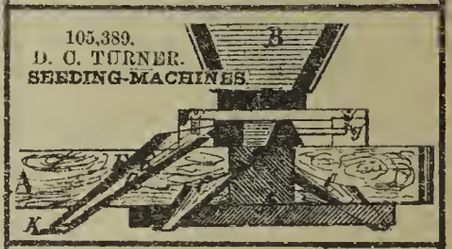


105,387, JOHN H. THOMAS.
PHINEAS P. MAST.
SECURING DRILL AND CULTIVATOR-TEETH.

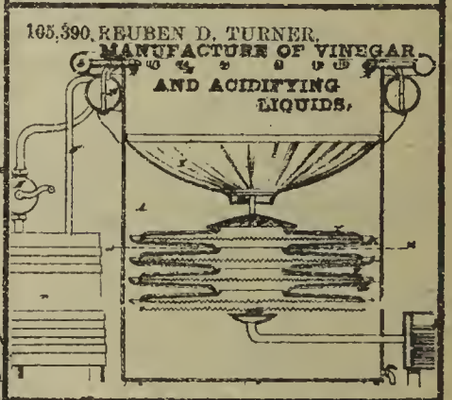


F. ALEXANDER THUER.
105,388, BREECH-LOADING FIRE-ARMS.

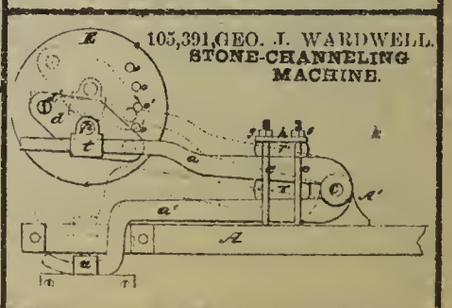
105,389.
D. C. TURNER.
SEEDING-MACHINES.



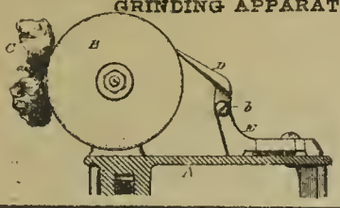
105,390, REUBEN D. TURNER.
MANUFACTURE OF VINEGAR AND ACIDIFYING LIQUIDS.



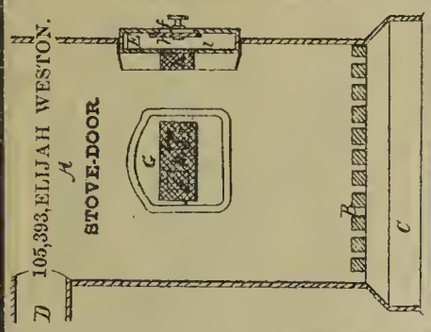
105,391, GEO. J. WARDWELL.
STONE-CHANNELING MACHINE.



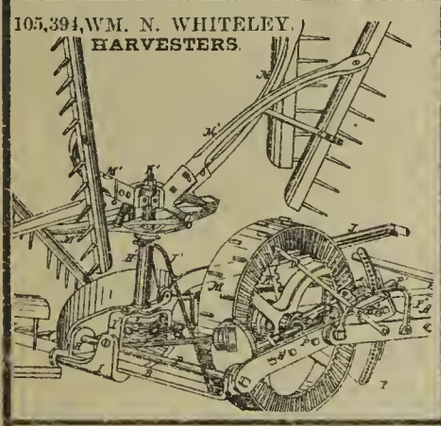
105,392, WILLIAM L. WASHBURN. GRINDING APPARATUS.



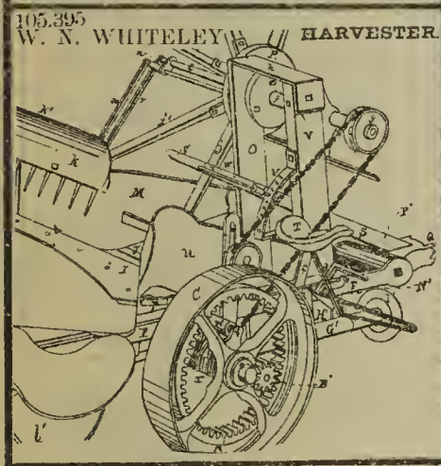
105,393, ELIJAH WESTON. STOVE-DOOR.



105,394, WM. N. WHITELEY. HARVESTERS.

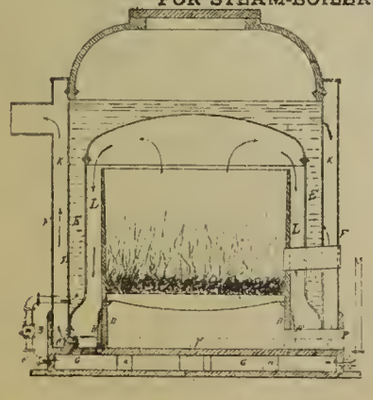


105,395 W. N. WHITELEY. HARVESTER.

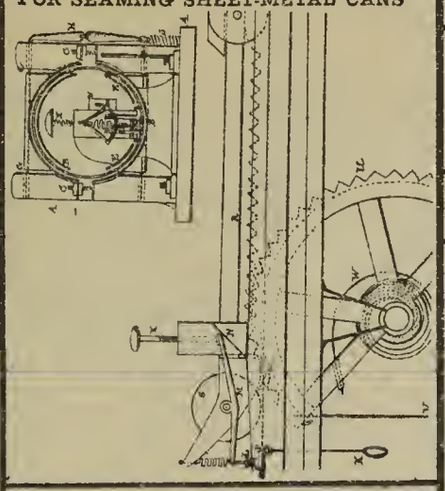


105,396, WM. N. WHITELEY. HARVESTER-DROPPERS.

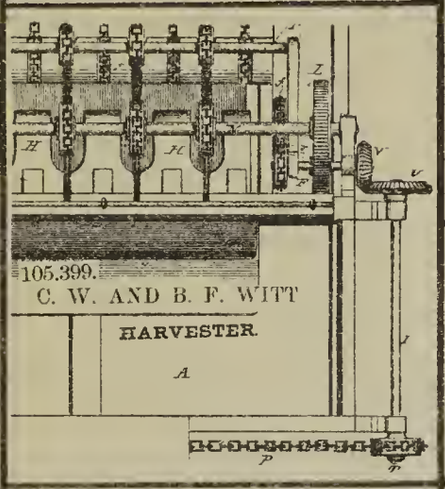
105,397 DANIEL WHITLOCK. FEED-WATER HEATERS FOR STEAM-BOILERS.



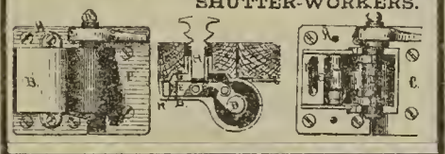
105,398, WM. A. WICKS. MACHINE FOR SEAMING SHEET-METAL CANS



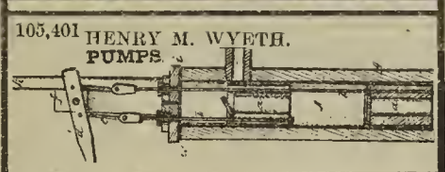
105,399. C. W. AND B. F. WITT HARVESTER.



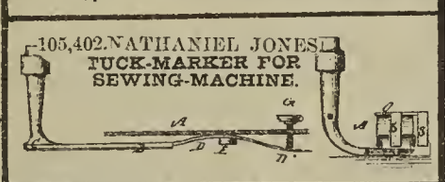
105,400, HERMANN WOLFF. SHUTTER-WORKERS.



105,401 HENRY M. WYETH. PUMPS.



105,402. NATHANIEL JONES. TUCK-MARKER FOR SEWING-MACHINE.



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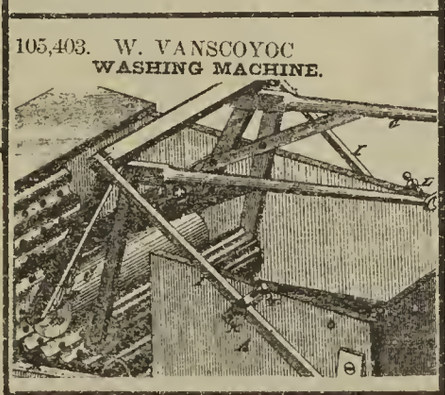
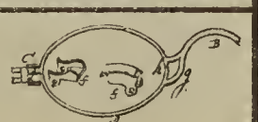


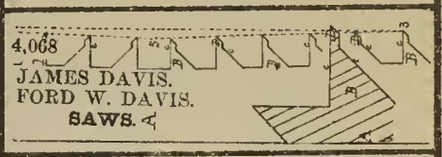
4,065. LOUIS BLACK. SPECTACLES.



4,066, GEO. W. CHIPMAN. CARPET-LINING.

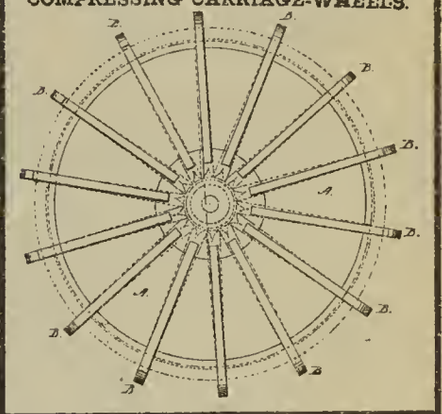
4,067, WM. COFFIN. PROCESS OF EXTRACTING FATTY SUBSTANCES.

4,068 JAMES DAVIS. FORD W. DAVIS. SAWS.



4,069, WILLIAM FIELDS. MANUFACTURE OF STEEL.

4,070, HENRY KILLAM. MACHINE FOR COMPRESSING CARRIAGE-WHEELS.



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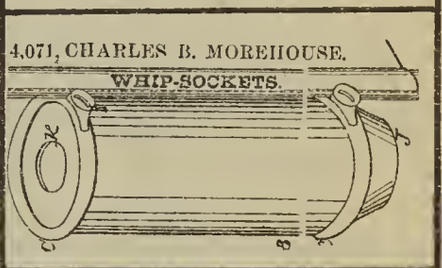
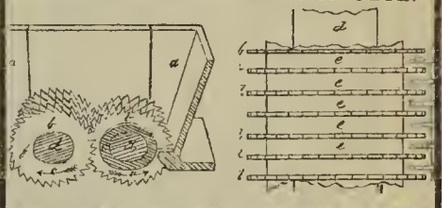


4,072. E. GODDARD. MANUFACTURE OF GLUE.



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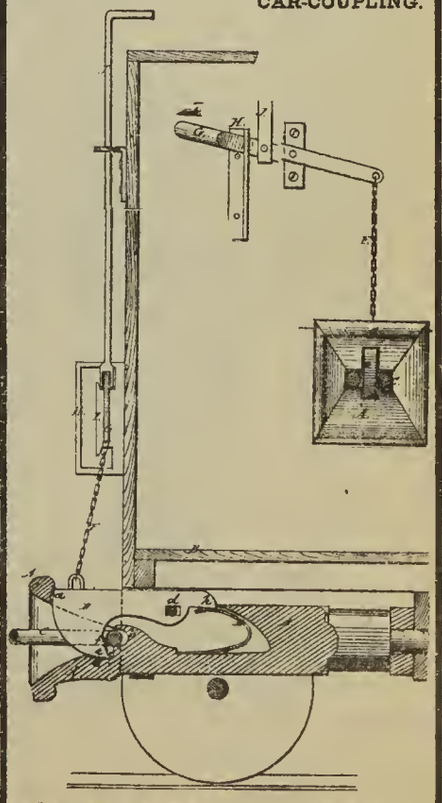

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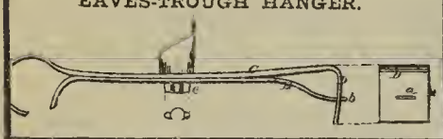
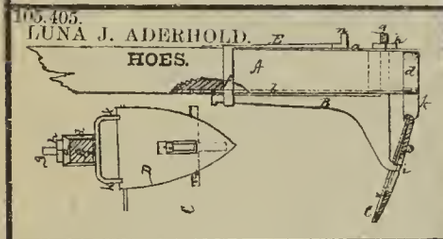
JULY 19, 1870.

105,404, J. P. ABBOTT. EAVES-TROUGH HANGER.



105,405, LUNA J. ADERHOLD. HOES.



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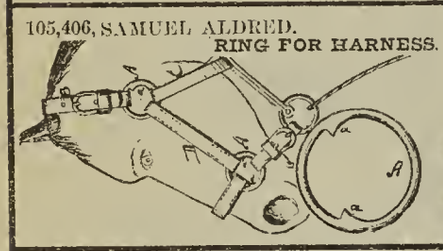

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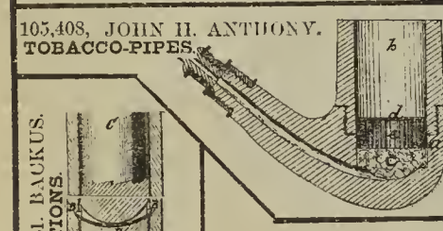
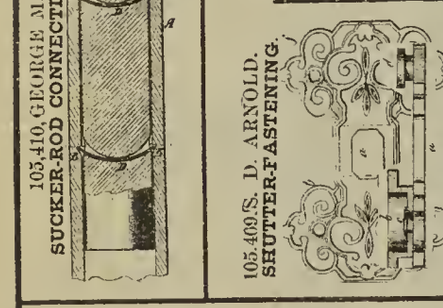
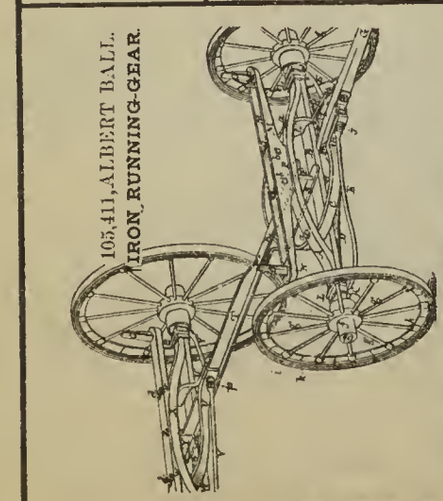
105,408, JOHN H. ANTHONY. TOBACCO-PIPES.



105,410, GEORGE M. BACKUS. SUCKER-ROD CONNECTIONS.



105,409, S. D. ARNOLD. SHUTTER-FASTENING.



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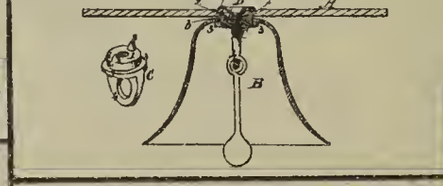
105,412, W. E. BARTON. MODE OF ATTACHING SLEIGH-BELLS.



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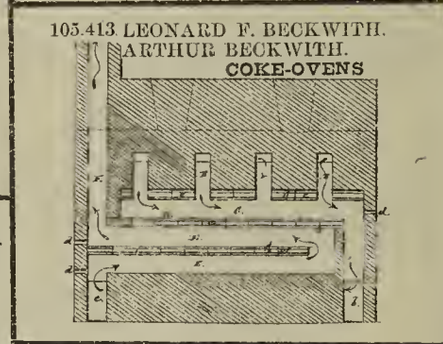
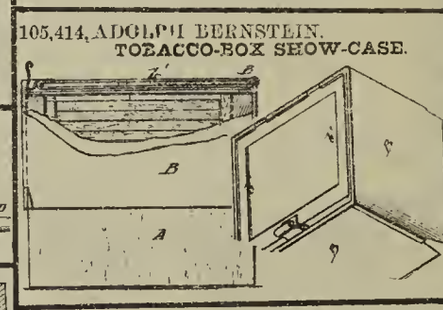
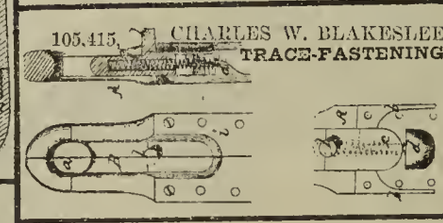


105,414, ADOLPH BERNSTEIN. TOBACCO-BOX SHOW-CASE.



105,415, CHARLES W. BLAKESLEE. TRACE-FASTENING.



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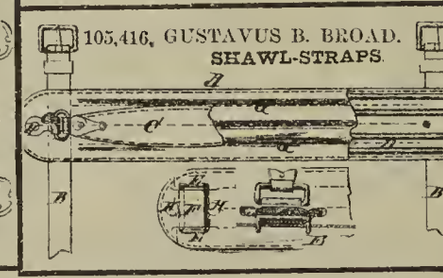
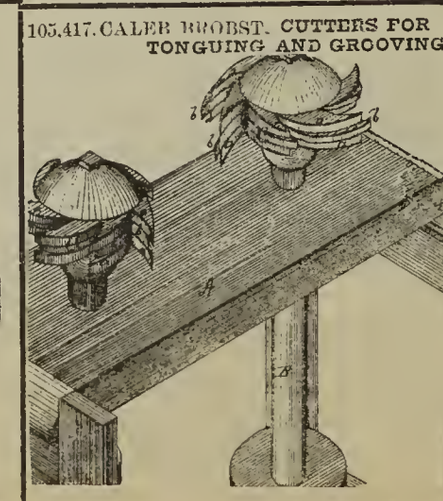


105,417, CALEB BROBST. CUTTERS FOR TONGUING AND GROOVING.



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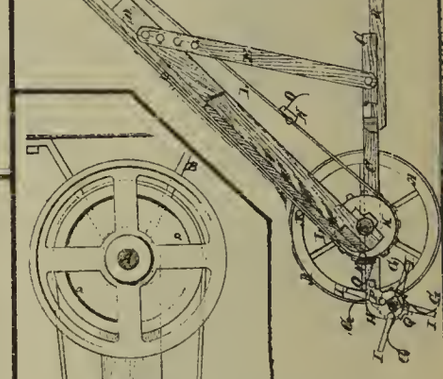
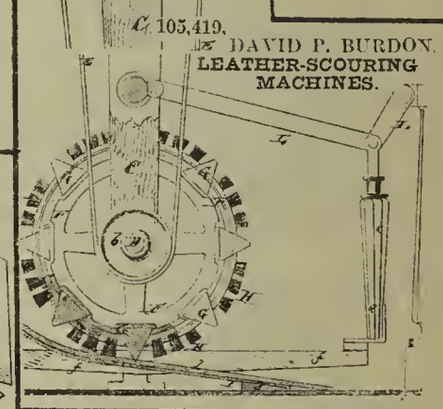


105,419, DAVID P. BURDON. LEATHER-SCOURING MACHINES.



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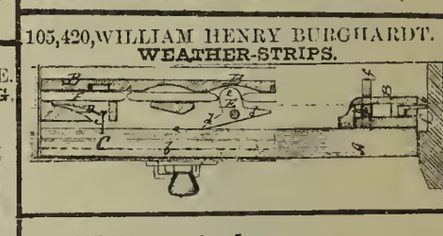
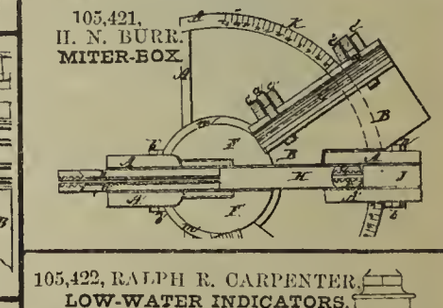


105,421, H. N. BURR. MITER-BOX.



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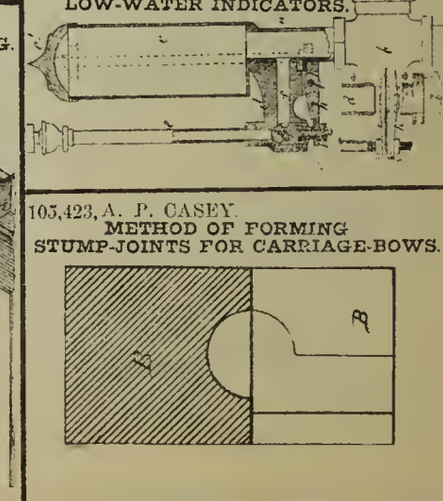

105,423, A. P. CASEY. METHOD OF FORMING STUMP-JOINTS FOR CARRIAGE-BOWS.

105,424, CYRUS CHAMBERS, Jr.
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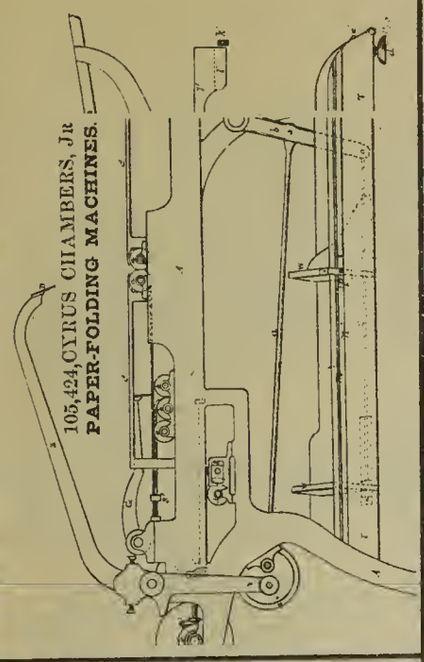
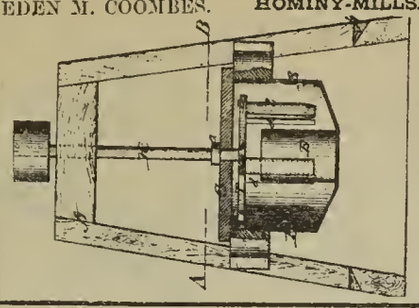


105,430.
EDEN M. COOMBES. HOMINY-MILLS.



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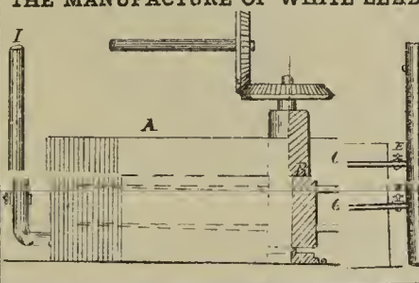

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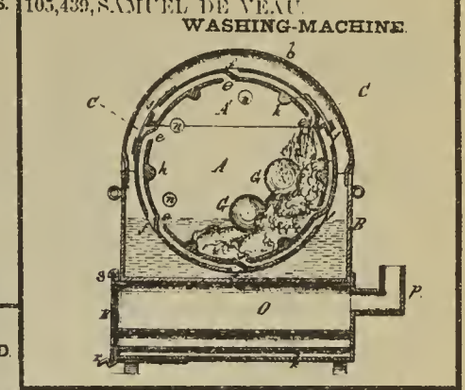

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105,441, ADOLF ECCARD.
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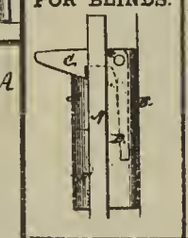

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H. GODFREY EMERY.
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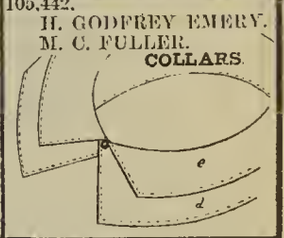

105,425, H. A. CHASE.
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105,426.
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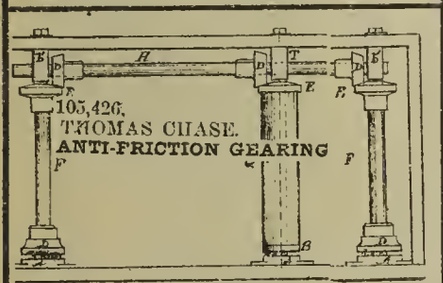

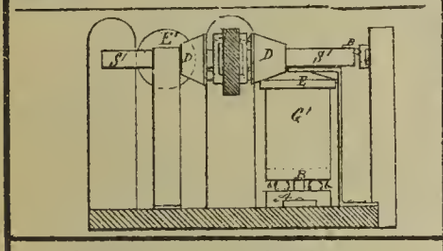

105,432.
JOHN J. CURNAN.
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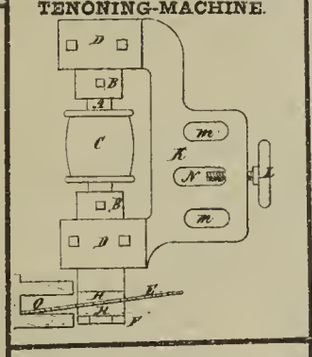

105,433, CHARLES R. S. CURTIS.
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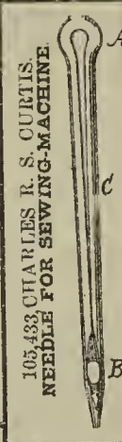

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105,443, JOSEPH ENGLAENDER.
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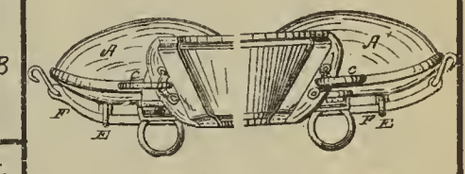

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105,427, FRANCIS G. CHESMAN
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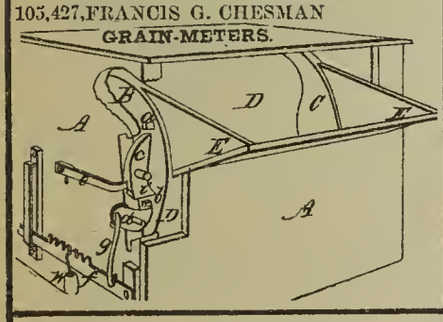

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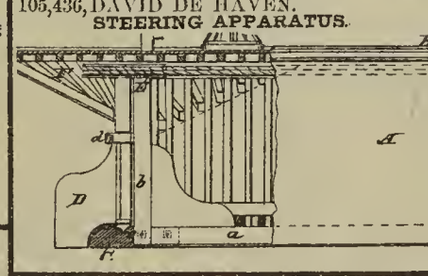

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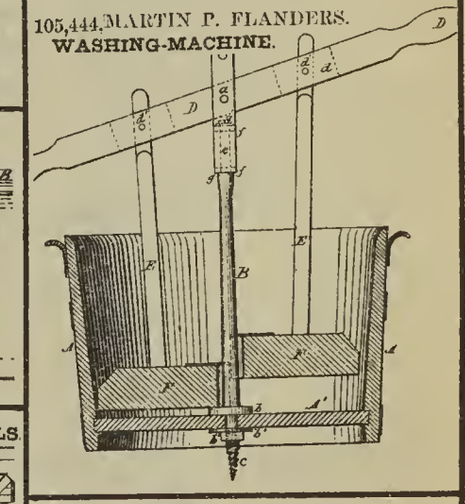

105,428, WILLIAM GILLS.
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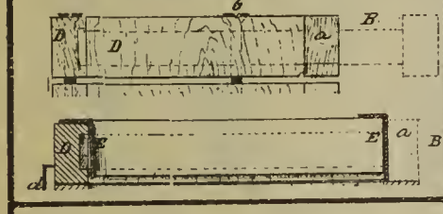
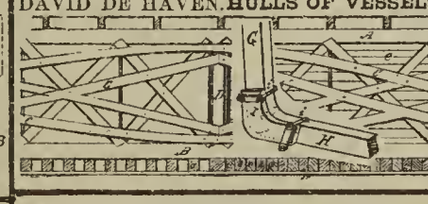


105,437.
DAVID DE HAVEN. HULLS OF VESSELS.



105,429, JOHN H. CLARK.
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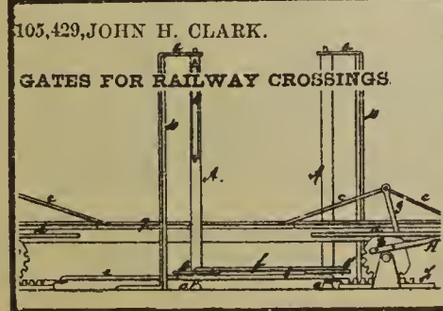
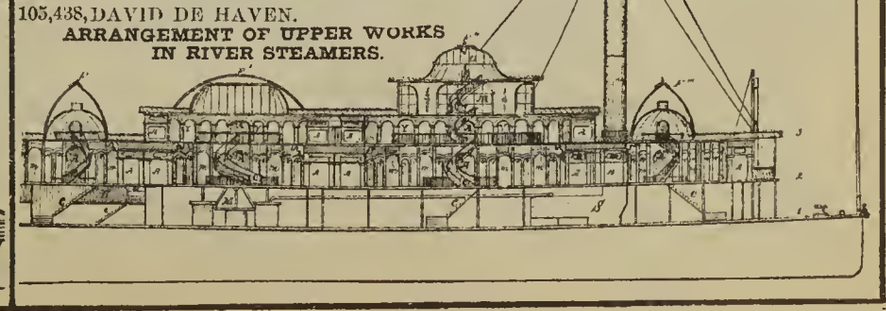
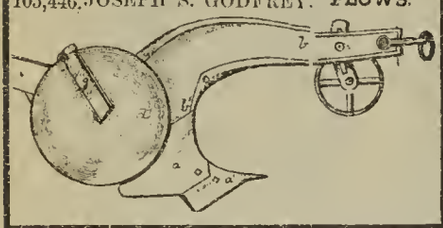


105,438, DAVID DE HAVEN.
ARRANGEMENT OF UPPER WORKS IN RIVER STEAMERS.

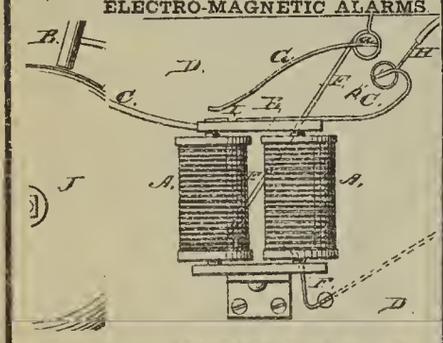


105,445, WALTER C. GIFFORD. SWINGING STANCHIONS.

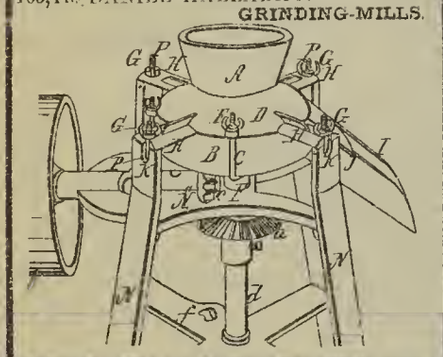
105,446, JOSEPH S. GODFREY. PLOWS.



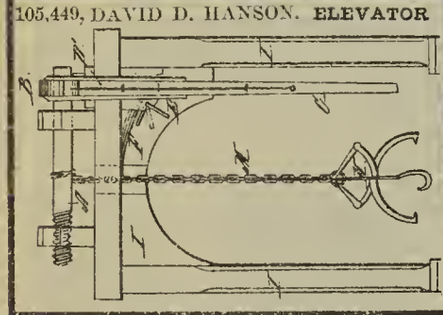
105,447, THOMAS S. HALL. ELECTRO-MAGNETIC ALARMS.



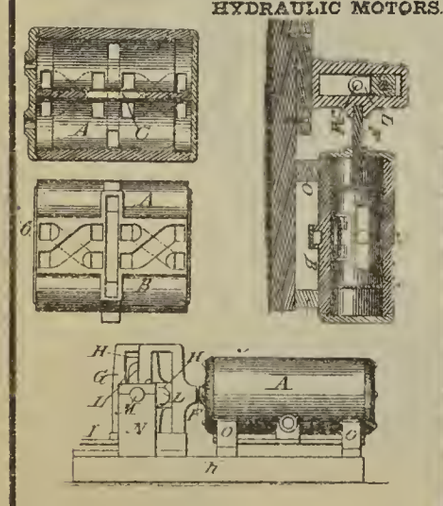
105,448, DANIEL HALLADAY. GRINDING-MILLS.



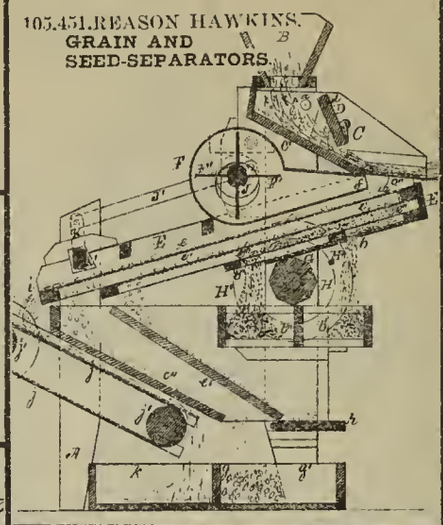
105,449, DAVID D. HANSON. ELEVATOR.



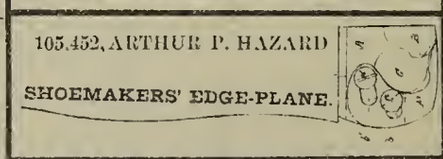
105,450, JAMES HARRIS. HYDRAULIC MOTORS.



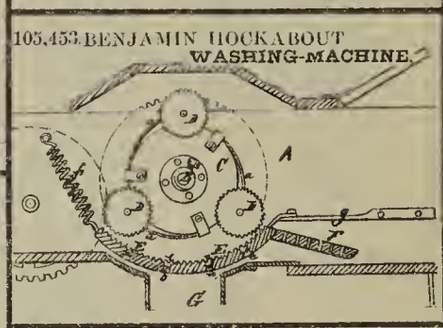
105,451, REASON HAWKINS. GRAIN AND SEED-SEPARATORS.



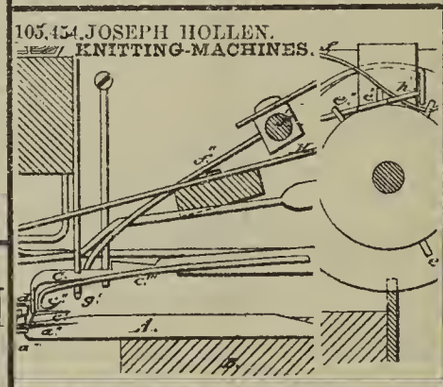
105,452, ARTHUR P. HAZARD. SHOEMAKERS' EDGE-PLANE.



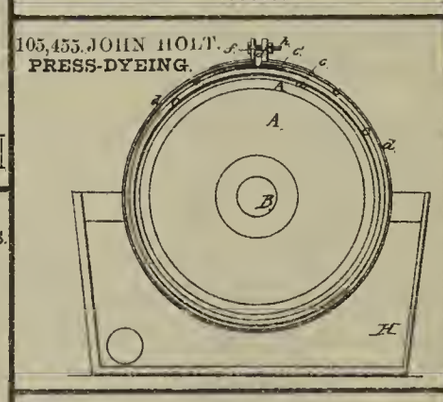
105,453, BENJAMIN HOCKABOUT. WASHING-MACHINE.



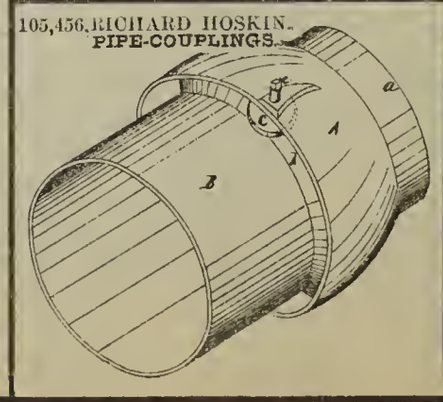
105,454, JOSEPH HOLLEN. KNITTING-MACHINES.



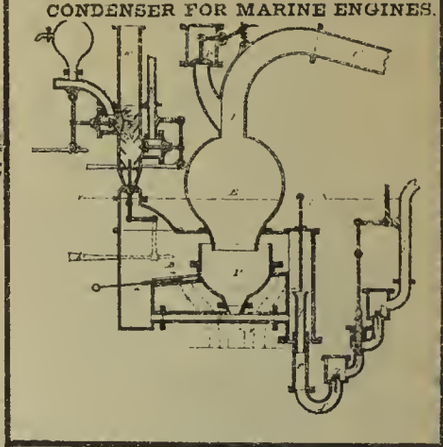
105,455, JOHN HOLT. PRESS-DYEING.



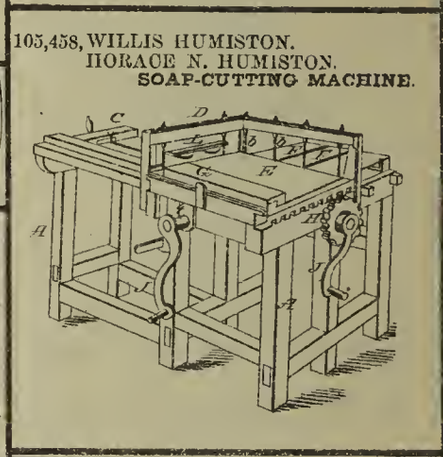
105,456, RICHARD HOSKIN. PIPE-COUPLINGS.



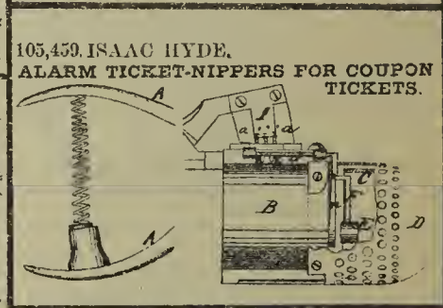
105,457, JOHN HOUPT. CONDENSER FOR MARINE ENGINES.



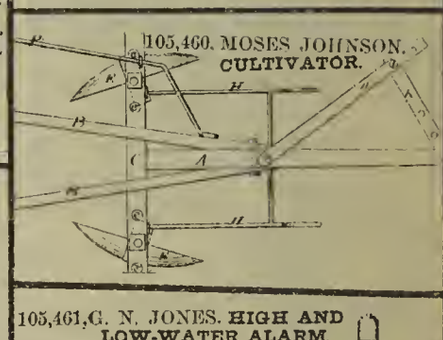
105,458, WILLIS HUMISTON. HORACE N. HUMISTON. SOAP-CUTTING MACHINE.



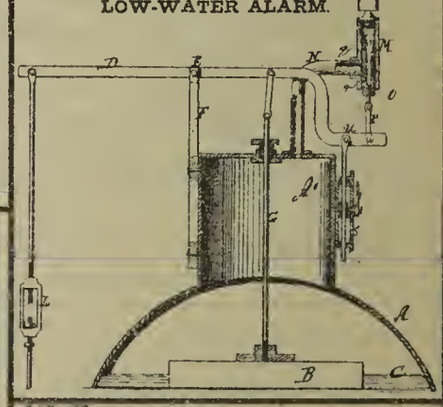
105,459, ISAAC HYDE. ALARM TICKET-NIPPERS FOR COUPON TICKETS.



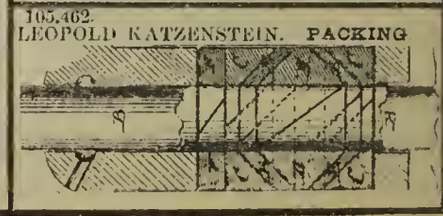
105,460, MOSES JOHNSON. CULTIVATOR.



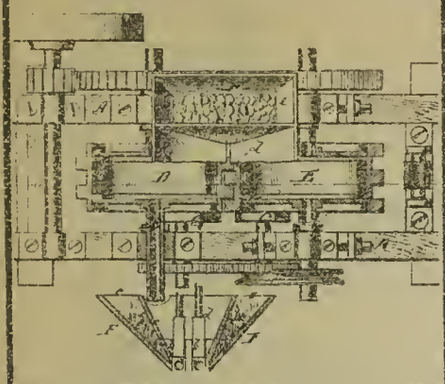
105,461, G. N. JONES. HIGH AND LOW-WATER ALARM.



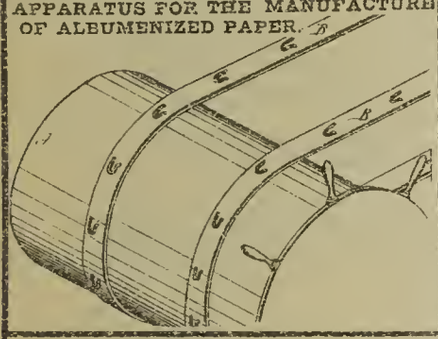
105,462. LEOPOLD KATZENSTEIN. PACKING.



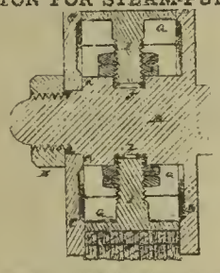
105,463, KARL M. KLEES. MACHINES FOR MAKING PRINTERS' LEADS.



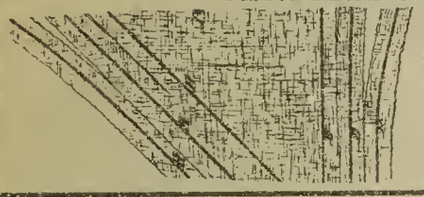
105,464, JAKOB KLEIN. APPARATUS FOR THE MANUFACTURE OF ALBUMENIZED PAPER.



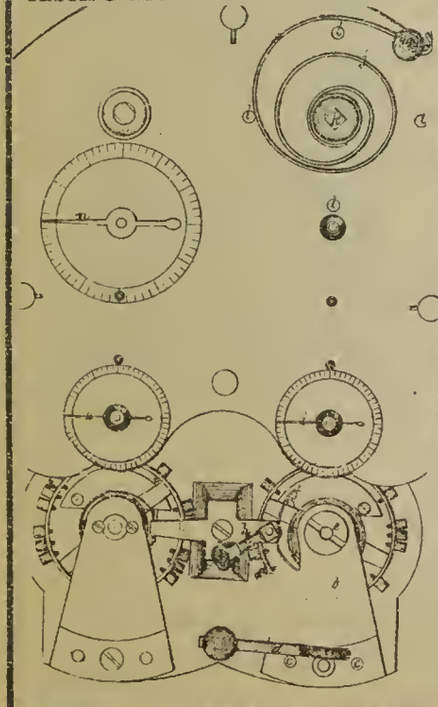
105,465, LUCIUS J. KNOWLES. PISTON FOR STEAM-PUMPS

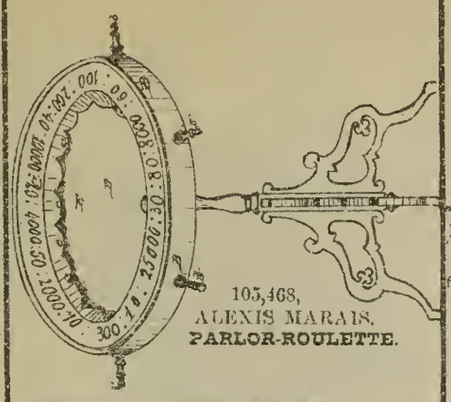


105,466, LUCIUS J. KNOWLES. PISTON-PACKING.



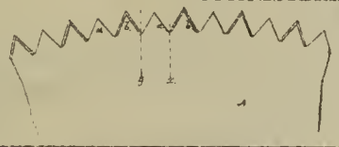
105,467, JOHN LOGAN. HAIR-SPRING-TESTING APPARATUS FOR WATCHES.



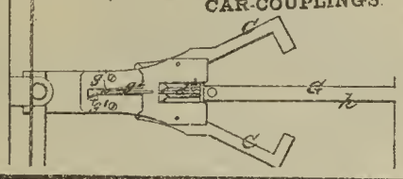


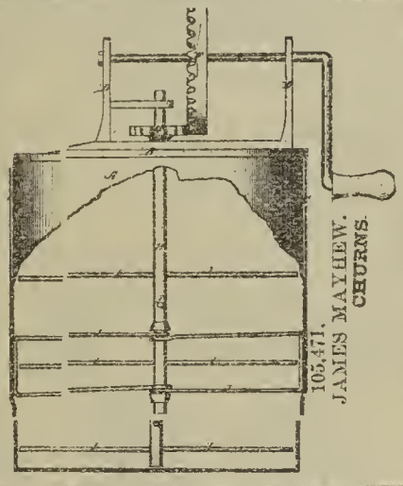
105,468, ALEXIS MARAIS. PARLOR-ROULETTE.

105,469, GEORGE W. MARBLE. SAW FOR MAKING STUFFING FOR UPHOLSTERING.



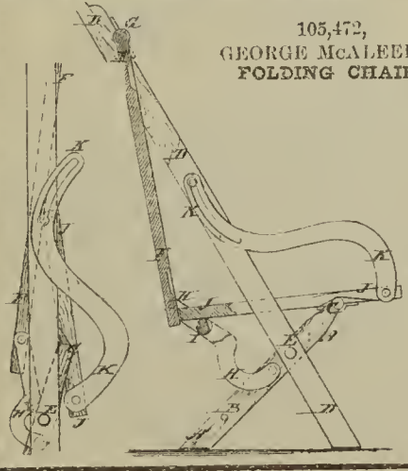
105,470, CHARLES MARKLEY. CAR-COUPLINGS.



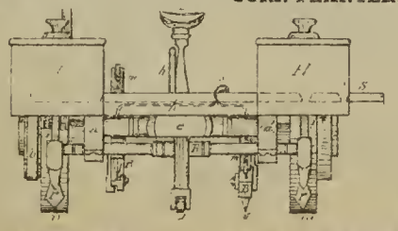


105,471, JAMES MAYHEW. CHURNS.

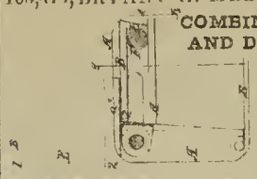
105,472, GEORGE McALEER. FOLDING CHAIR.



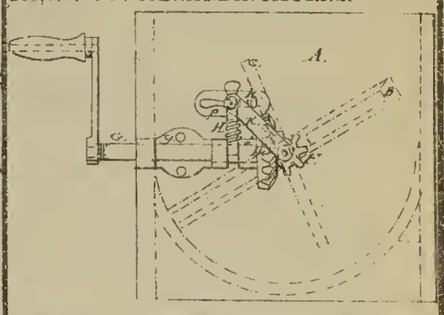
105,473, JOSEPH A. McCLURE. CORN-PLANTER.



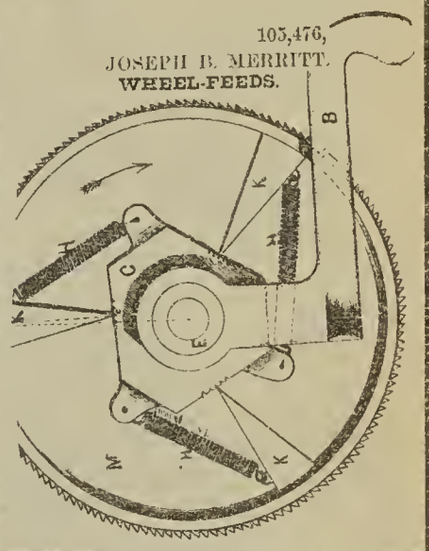
105,474, BRYANT H. MELENDY. COMBINED KEY-RING AND DOOR-FASTENER.



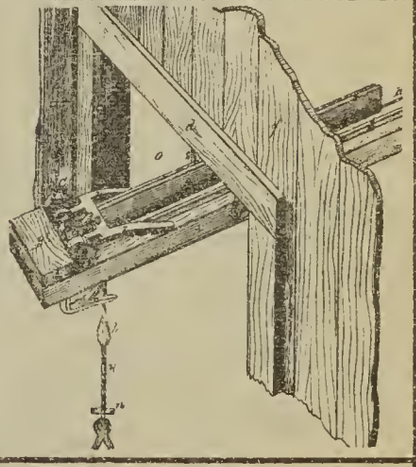
105,475, J. P. MERANDA. CHURNS.



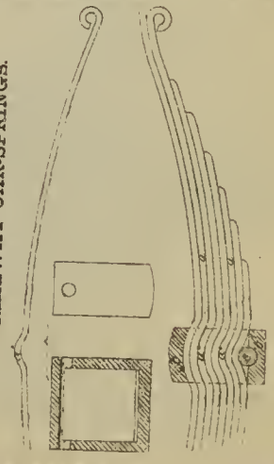
105,476, JOSEPH B. MERRITT. WHEEL-FEEDS.



105,477, CHARLES A. MILLER. HAY-ELEVATOR AND CONVEYER.

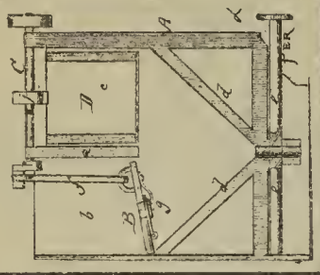


105,478, JOSEPH MITCHELL. RAILWAY CAR-SPRINGS.

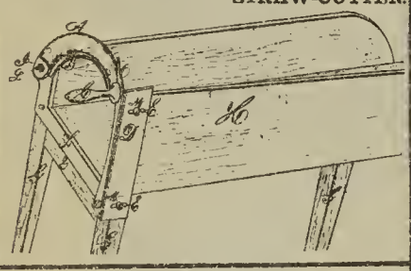


105,479, ADOLPHE MOT.
MAKING BUTTER

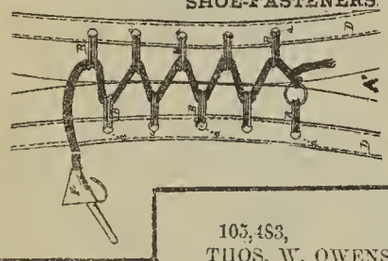
105,480. D. NEVIN.
ORE SEPARATOR.



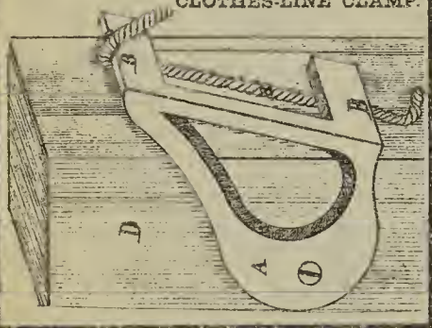
105,481, HARRISON OGBORN.
STRAW-CUTTER.



105,482, JULIUS E. OTTO.
SHOE-FASTENERS.



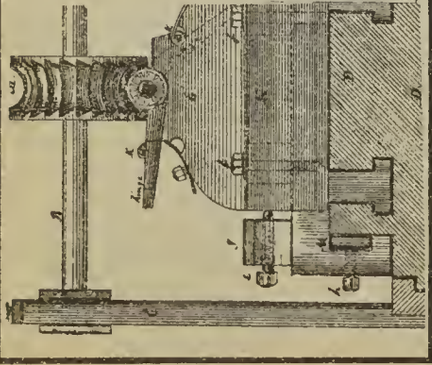
105,483,
THOS. W. OWENS.
CLOTHES-LINE CLAMP.



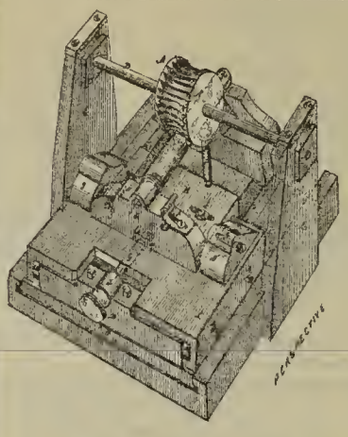
105,484 H. L. PALMER. PRESERVING
VARIOUS ARTICLES OF FOOD.

105,485, H. L. PALMER.
PRESERVING VEGETABLE EXTRACTS.

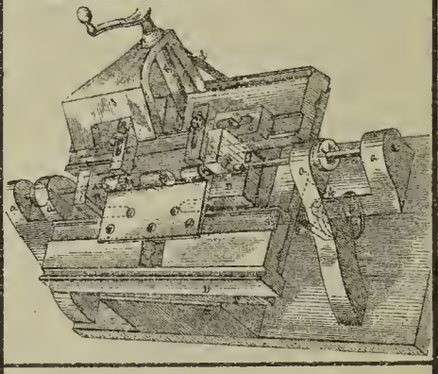
105,486, MOSES PALMER, JR.
E. W. ANDERSON.
PATTERN FOR MEASURING THE BODY
FOR GARMENTS.



105,487, EMERY PARKER.
MACHINE FOR MILLING THE
KNUCKLES OF BUTT-HINGES

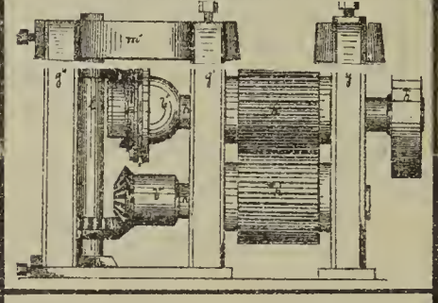


105,488. EMERY PARKER.
MACHINE FOR CENTERING BUTTS.

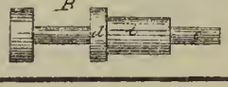


105,489, RUSSEL B. PRINDLE.
DOOR-BOLTS.

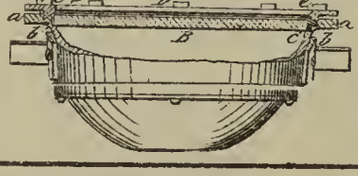
105,490. ABRAM REESE. MACHINE FOR
JACOB REESE.
MAKING HORSESHOE BLANKS.



105,491. W. RICKARDS, JR. BUFFER
HEAD FOR CAR COUPLINGS.

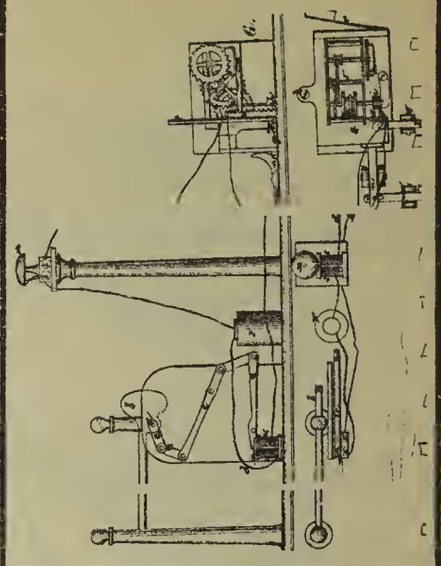


105,492. EDW. S. RITCHIE.
MARINE COMPASSES.

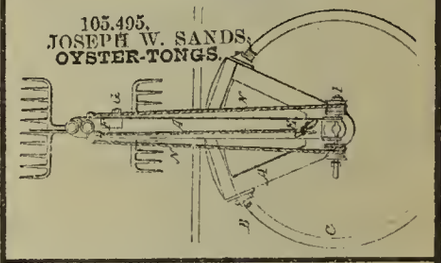


105,493 WM. ROBINSON.
ELECTRO-MAGNETIC GATE AND
SIGNAL APPARATUS FOR RAILROADS.

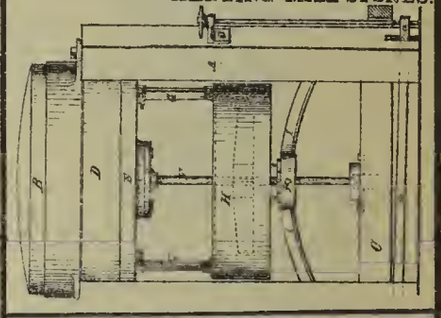
105,494. WM. ROBINSON.
ELECTRO-MAGNETIC GATE-
OPERATING APPARATUS



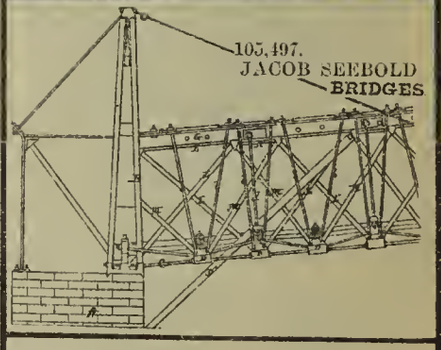
105,495.
JOSEPH W. SANDS.
OYSTER-TONGS.



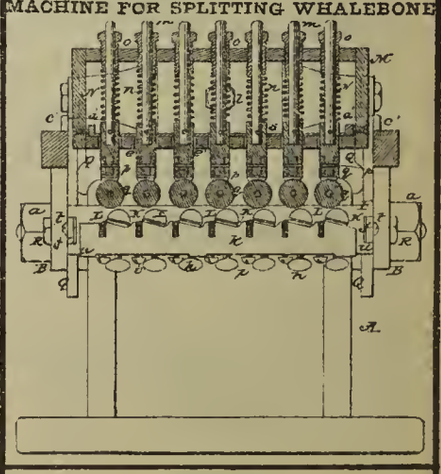
105,496. CHARLES SCHNEIDER.
HANGING MILL-STONES.



105,497.
JACOB SEEBOLD
BRIDGES

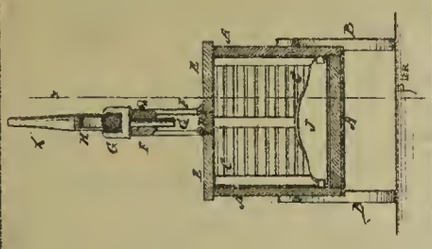


105,498. J. A. SEVEY.
MACHINE FOR SPLITTING WHALEBONE



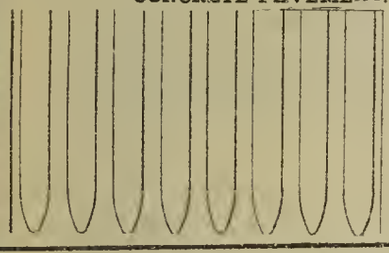
105,499. EDWIN B. S. SHOEMAKER.
THE MANUFACTURE OF LUBRICATING
COMPOUNDS

105,500, PETER B. SHOEMAKER.
WASHING-MACHINE.

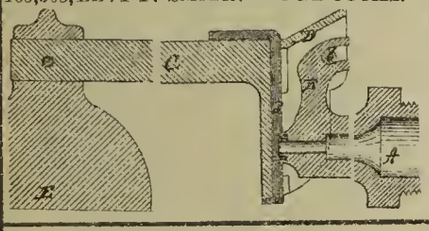


105,501, NATHAN J. SIMONDS.
BOOT AND SHOE-STIFFENER.

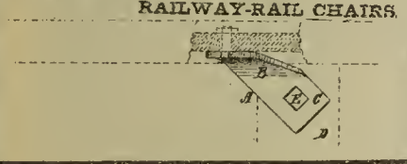
105,502, R. SKINNER AND B. BONNET
CONCRETE PAVEMENT.



105,503, LEVI F. SMITH. GAUGE-COCKS.

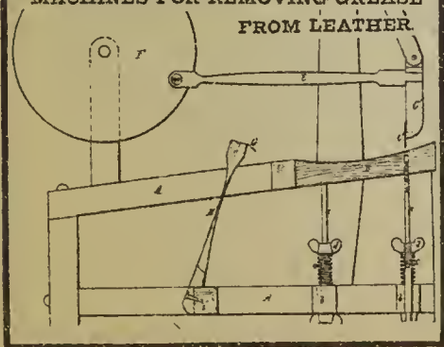


105,504, SAMUEL H. SMITH
RAILWAY-RAIL CHAIRS.

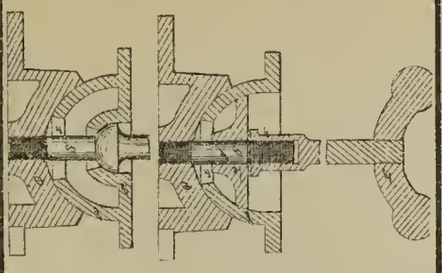


105,505, THOMAS G. STAGG.
FOLDING CARRIAGE FOR CHILDREN.

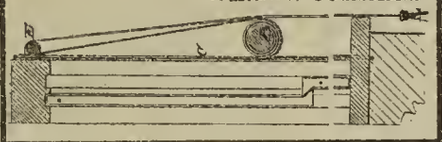
105,506, JAMES STARRATT.
MACHINES FOR REMOVING GREASE FROM LEATHER.



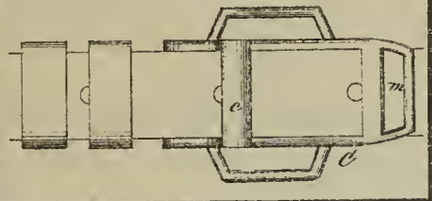
105,507, ANSON P. STEPHENS. VISES



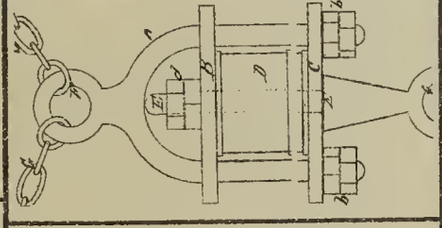
105,508, JOHN STEPHENS.
JAIRUS COLLINS.
APPARATUS FOR OPERATING WINDOW-CURTAINS



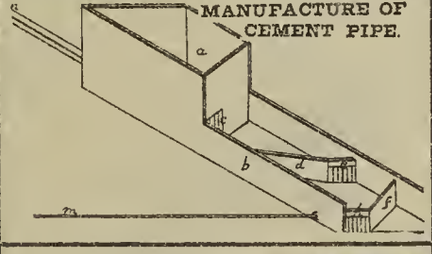
105,509, CHARLES H. STEVENS
TRACE-BUCKLES.



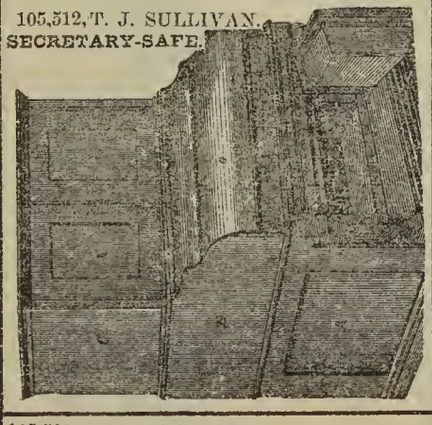
105,510 JAMES STITT. CABLE-STOPPERS.



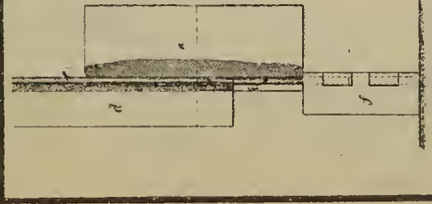
105,511, JOHN W. STOCKWELL.
PREPARATION OF CEMENT FOR THE MANUFACTURE OF CEMENT PIPE.



105,512, T. J. SULLIVAN.
SECRETARY-SAFE.

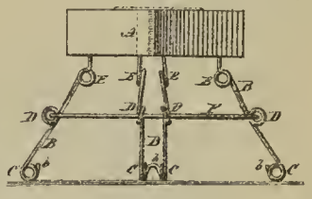


105,513, L. P. SUMMERS.
DEVICES FOR INSERTING THE PINTLES OR PINS IN BUTT-HINGES

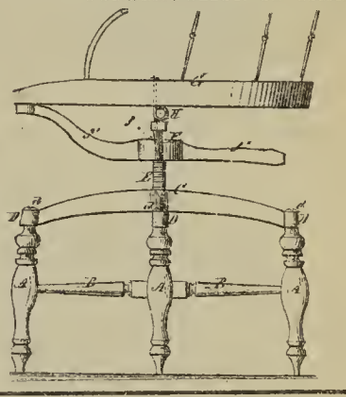


105,514, WILLIAM FRANCIS SWASEY.
CONDIMENT OR RELISH.

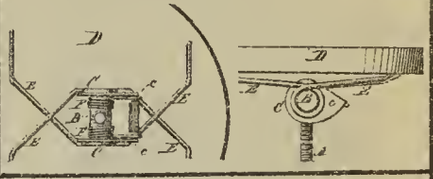
105,515, DANIEL E. TEAL.
CONSTRUCTION OF CHAIRS



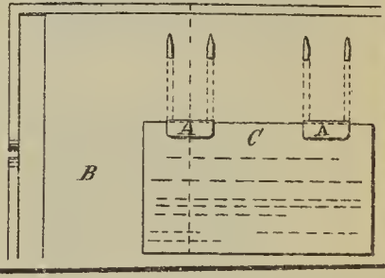
105,516, DANIEL E. TEAL.
CONSTRUCTION OF CHAIRS.



105,517, DANIEL E. TEAL.
CONSTRUCTION OF CHAIRS.

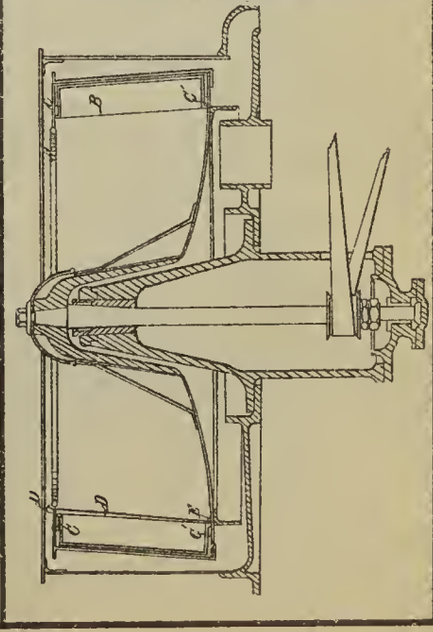


105,518, R. W. THING.
GAUGE-PINS FOR TYMPAN-SHEETS.

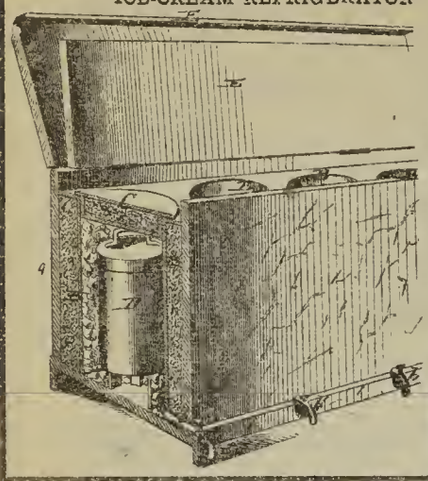


105,519, S. LEE TIBBALS.
DEVICE FOR CURLING HAIR.

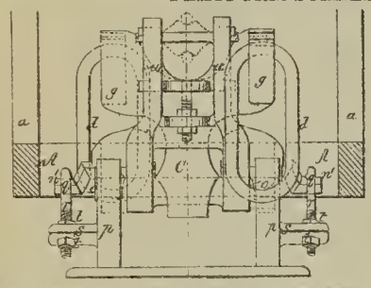
105,520, PATRICK TULLY.
CENTRIFUGAL SUGAR-DRAINING AND MOLDING MACHINE.



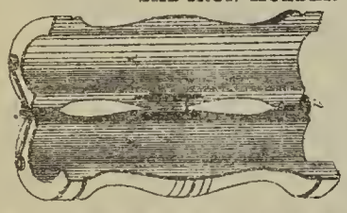
105,521, CARL VIGNAL.
ICE-CREAM REFRIGERATOR



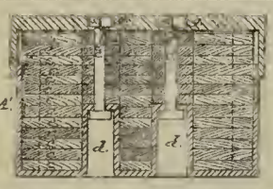
105,522, VICTOR VINCENT.
PLATFORM-SCALES.



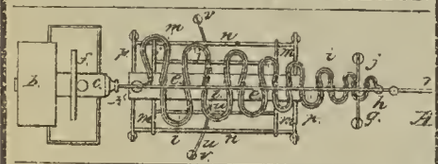
105,523, E. H. GUSTAV VON DOEHREN.
FREDERICK P. L. REIMERS.
SAD-IRON HOLDER



105,524, RICHD. VOSE.
CAR-SPRINGS.

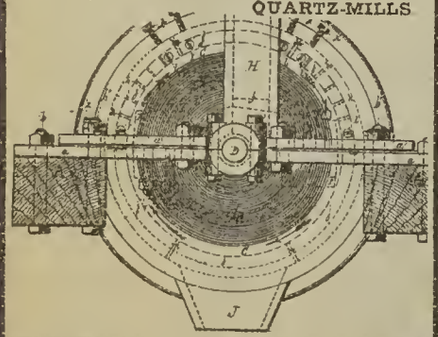


105,525, ALFRED WALKER. REGULATOR
FOR STEAM HEATING APPARATUS.

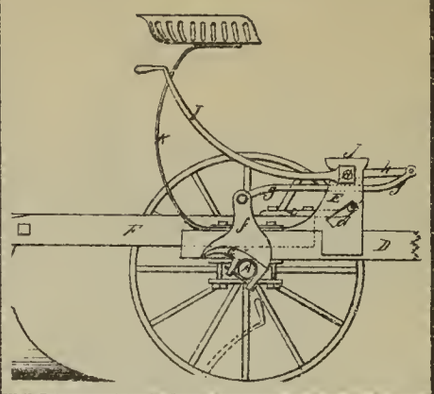


105,526, REBECCA J. WALKER.
MODE OF PROTECTING FRUIT-TREES
FROM CURCULIO, &c.

105,527, THOS. WALKER.
QUARTZ-MILLS



105,528, ELISHA W. WALTON.
GANG-PLOWS



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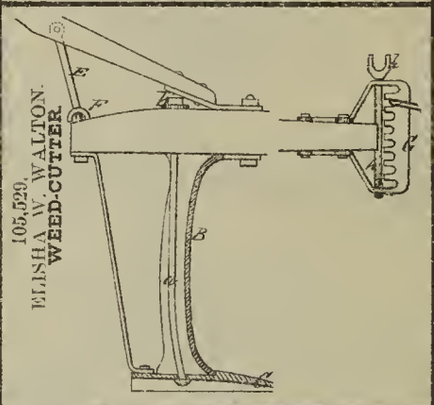
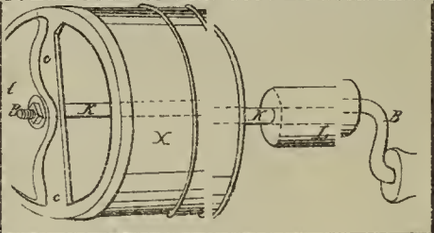
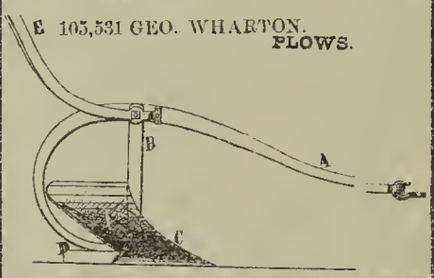
WEED-CUTTER.



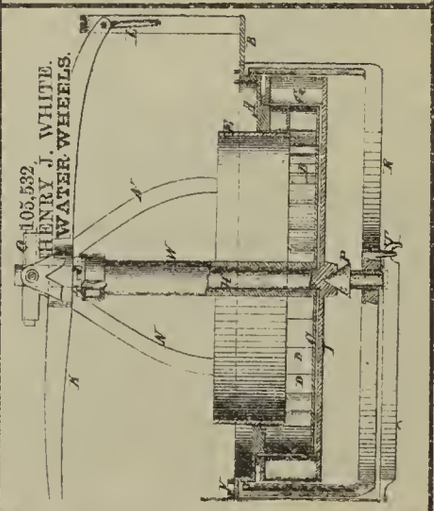
105,530, L. A. WARNER.
CORN-POPPERS AND COFFEE-ROASTERS.



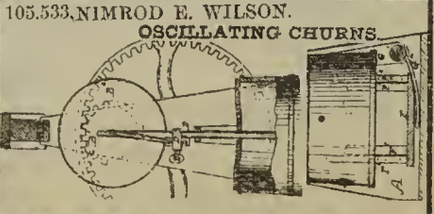
E 105,531 GEO. WHARTON.
PLOWS.



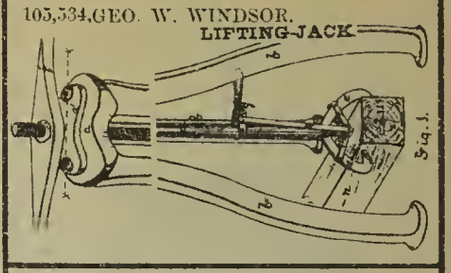
105,532, HENRY J. WHITE.
WATER-WHEELS.



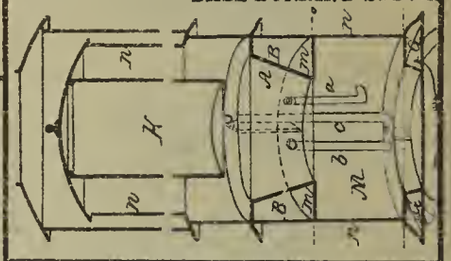
105,533, NIMROD E. WILSON.
OSCILLATING CHURNS.



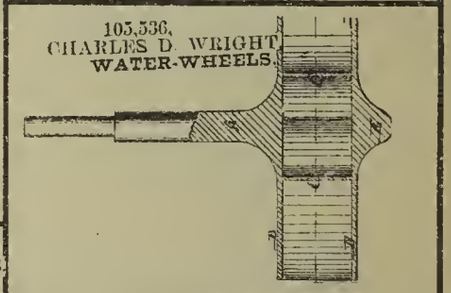
105,534, GEO. W. WINDSOR.
LIFTING-JACK



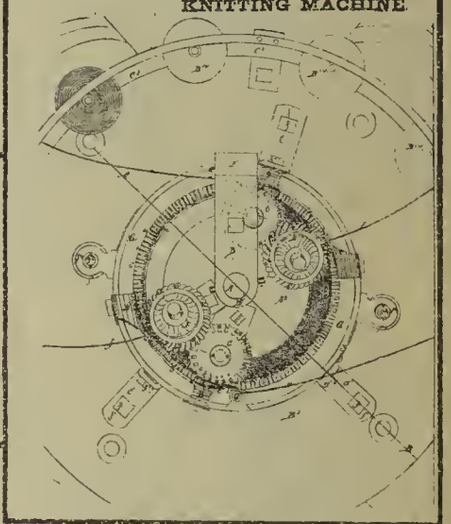
105,535, GEORGE A. WING.
BASE-BURNING STOVE.



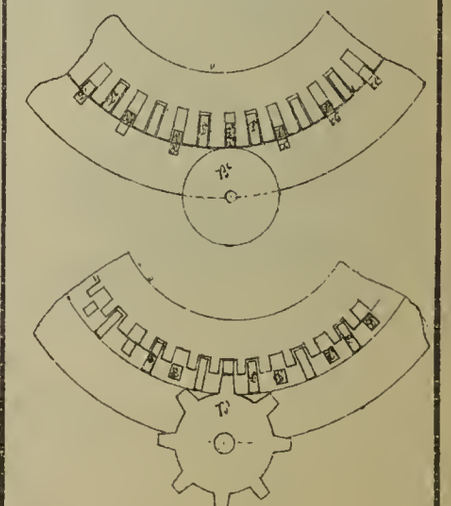
105,536, CHARLES D. WRIGHT.
WATER-WHEELS.



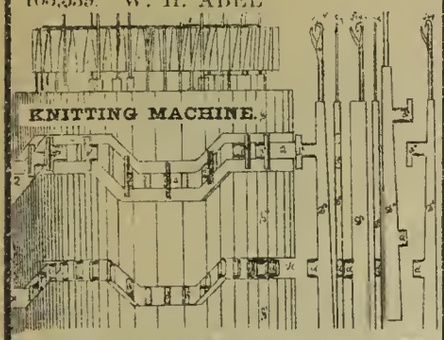
105,537. W. H. ABEL.
KNITTING MACHINE.



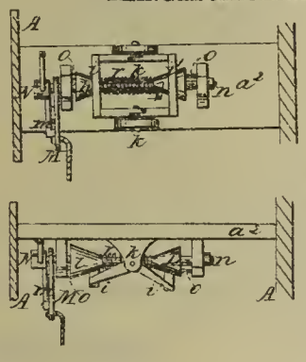
105,538. W. H. ABEL
KNITTING MACHINE.



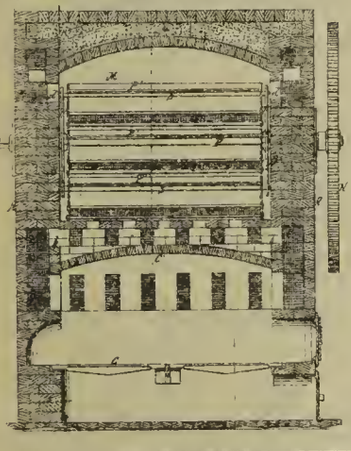
105,539. W. H. ABEL
KNITTING MACHINE.



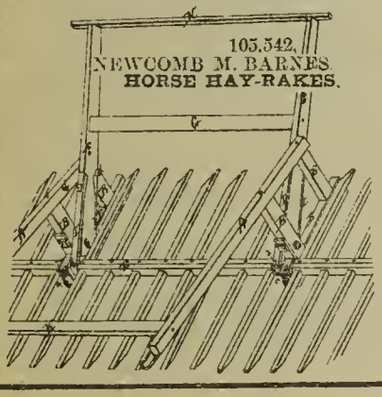
105,540. JAS. E. AUSTIN.
SHINGLE-MACHINE.



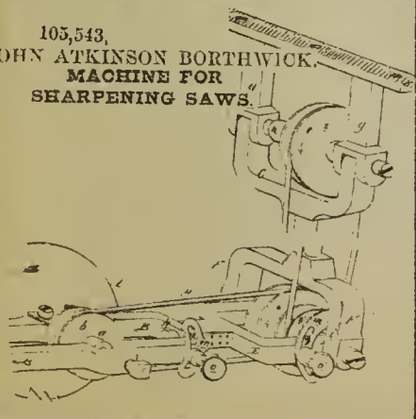
105,541. HOSEA BALLOVEN.



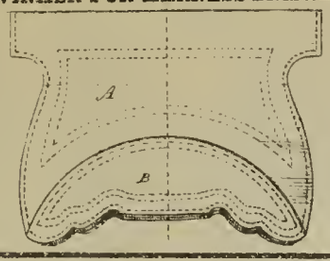
105,542.
NEWCOMB M. BARNES.
HORSE HAY-RAKES.



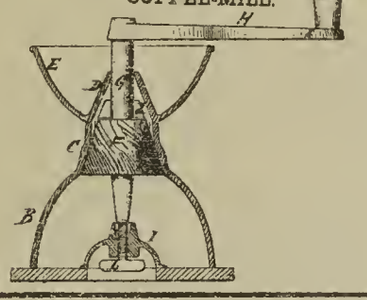
105,543.
JOHN ATKINSON BORTHWICK.
MACHINE FOR
SHARPENING SAWS.



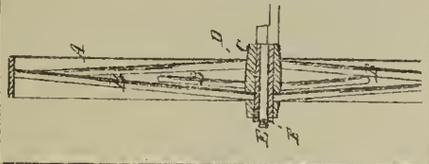
105,544, WILLIAM BOYD.
WINKER FOR HARNESS-BRIDLES.



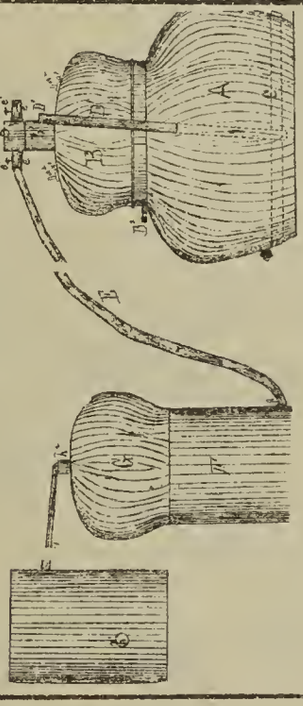
105,545, THOMAS W. BROWN.
COFFEE-MILL.



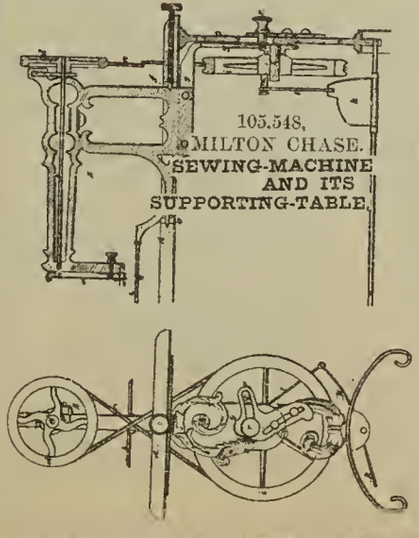
105,546. SENECA B. BUCK.
CARRIAGE-WHEEL.



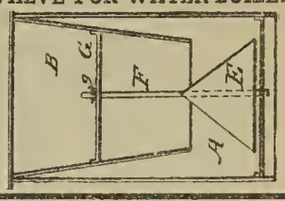
105,547, JAMES A. CAMPBELL.
FRUIT AND ALCOHOL STILLS.



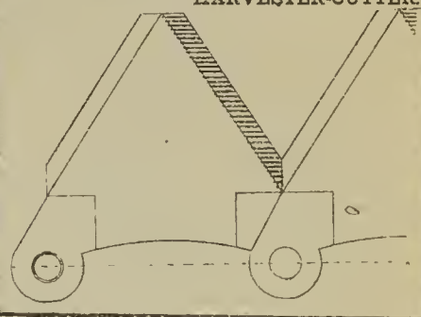
105,548,
MILTON CHASE.
SEWING-MACHINE
AND ITS
SUPPORTING-TABLE.



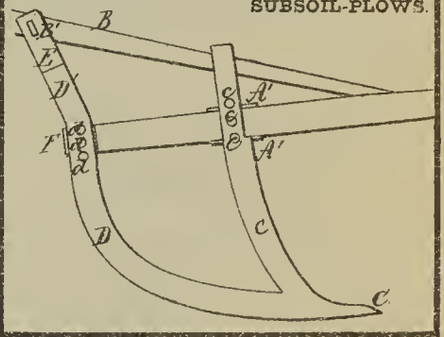
105,549, E. H. CLARKSON.
VALVE FOR WATER-BOILERS.



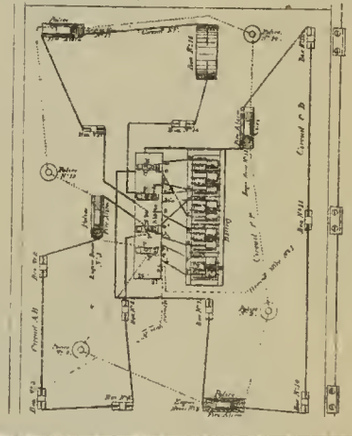
105,550. J. M. CONNEL.
HARVESTER-CUTTER.



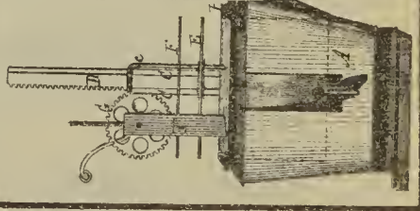
105,551, THOMAS L. COTTEN.
SUBSOIL-PLOWS.



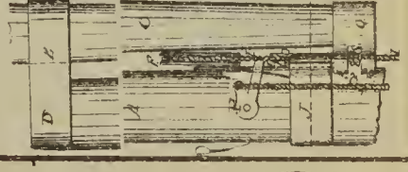
105,552, SYLVANUS D. CUSHMAN.
SYSTEM OF FIRE-ALARM AND
POLICE-TELEGRAPHS.



105,553, W. S. DEEDS.
KETTLE FOR MELTING, MIXING
AND CASTING METALS.

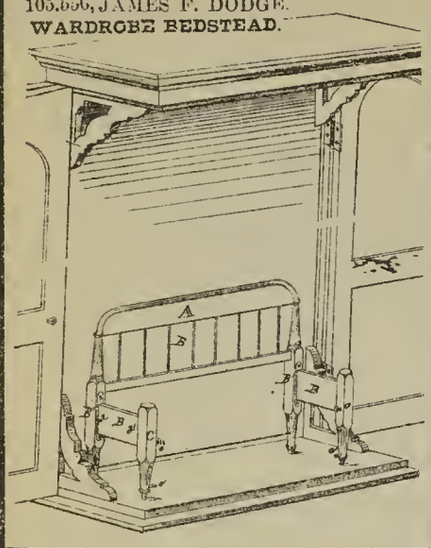


105,554, EBEN DENTON.
SHIPS' TOPMASTS.

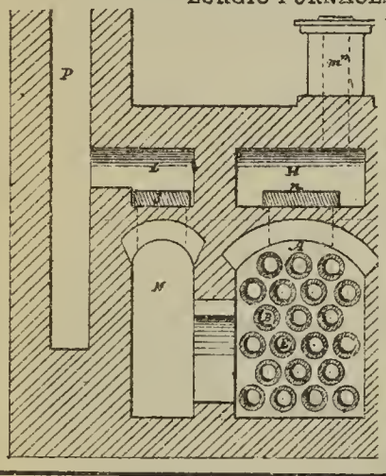


105,555,
ANDREW J. DEXTER.
BLACKSMITHS' TONGS

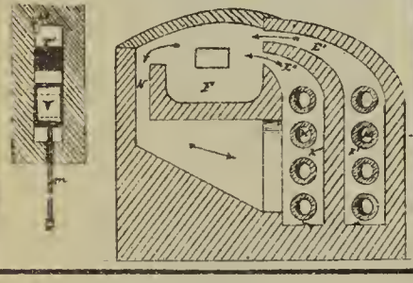
105,556, JAMES F. DODGE.
WARDROBE BEDSTEAD.



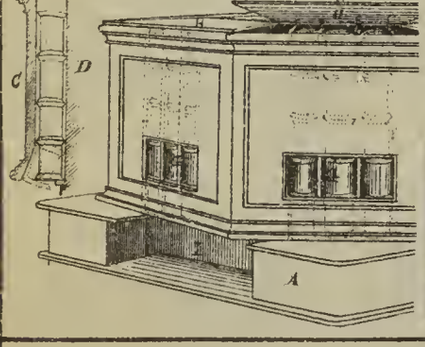
105,557, JOSIAH W. ELLS.
APPARATUS FOR GENERATING AND BURNING GASES IN METALLURGIC FURNACES.



105,558, JOSIAH W. ELLS.
GAS AND AIR-HEATING APPARATUS FOR METALLURGIC FURNACES.

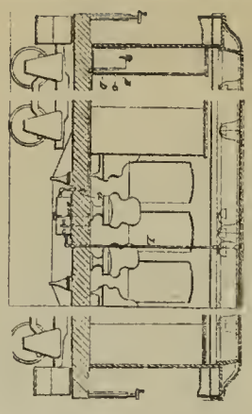


105,559, EBEN B. FENTON.
HENRY S. PENFIELD.
SPOOL-STAND AND SHOW-CASE.

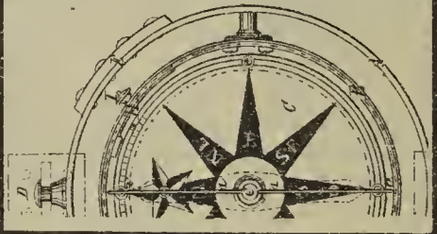


105,560, OSCAR S. FOLLETT.
PRESERVING AND BEAUTIFYING CRYSTALLIZED SALTS UPON GLASS, MICA, &c.

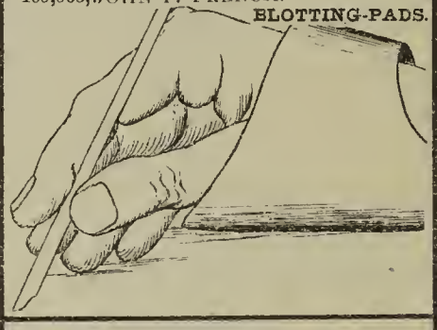
105,561, WM. FOSTER, JR.
GEO. P. GANSTER.
GAS APPARATUS FOR RAILROADS, &c.



105,562, ALFRED FOUCAUT.
ELECTRO-MAGNETIC ATTACHMENT TO SHIPS' COMPASSES.



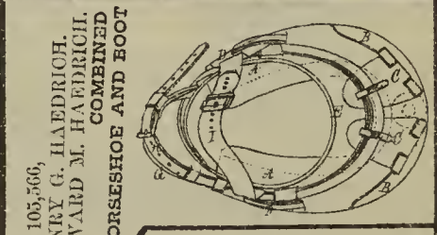
105,563, JOHN F. FRENCH.
BLOTTING-PADS.



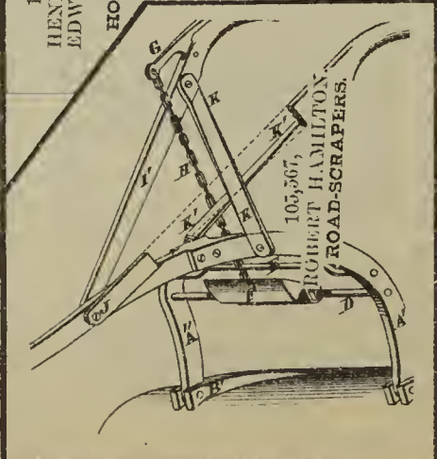
105,564. LEONARD GILSON.
HAND-TRUCKS.

105,565. PARDON H. GRISWOLD.
BARRELS.

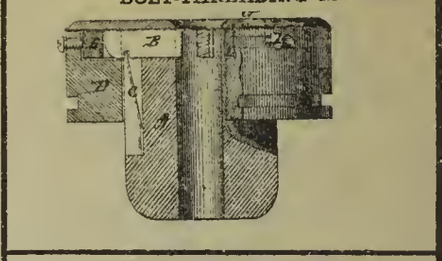
105,566,
HENRY G. HAEDRICH.
EDWARD M. HAEDRICH.
COMBINED HORSESHOE AND BOOT



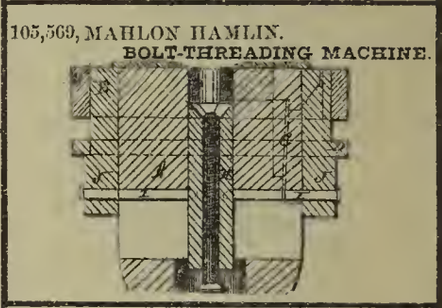
105,567,
ROBERT HAMILTON.
ROAD-SCRAPERS.



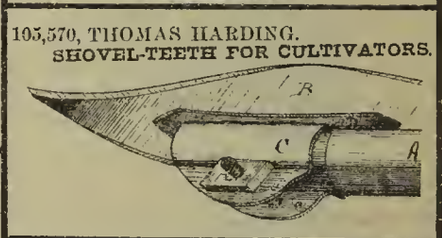
105,568, MAHLON HAMLIN.
BOLT-THREADING MACHINE.



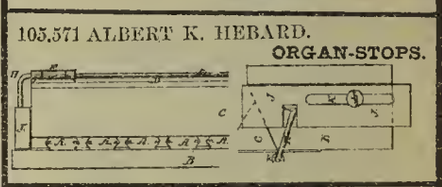
105,569, MAHLON HAMLIN.
BOLT-THREADING MACHINE.



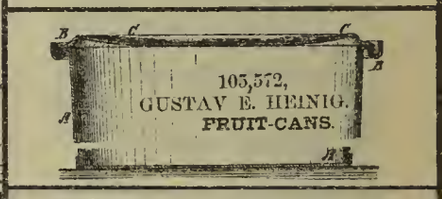
105,570, THOMAS HARDING.
SHOVEL-TEETH FOR CULTIVATORS.



105,571 ALBERT K. HEBARD.
ORGAN-STOPS.

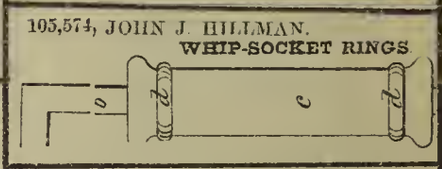


105,572,
GUSTAV E. HEINIG.
FRUIT-CANS.

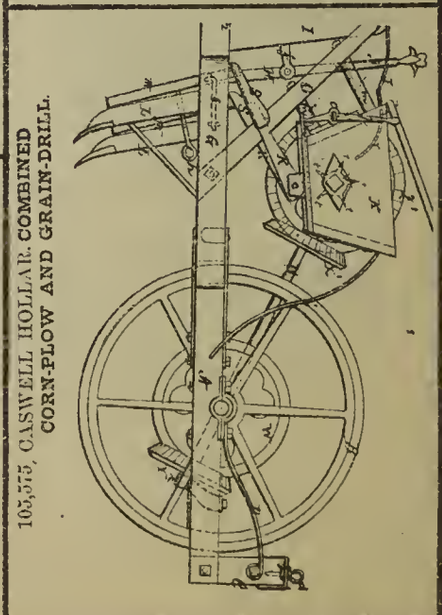


105,573, ENOS T. HIGHAM.
SHADE-CORD RETAINER.

105,574, JOHN J. HILLMAN.
WHIP-SOCKET RINGS.

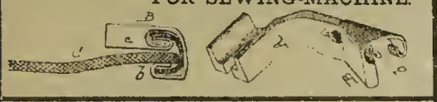


105,575, CASWELL HOLLAR. COMBINED CORN-PLOW AND GRAIN-DRILL.

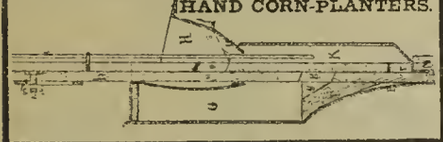


105,576, HENRY M. JOHNSTON.
PROTECTING AND BEAUTIFYING CRYSTALLIZED METALLIC SURFACES.

105,577, AMASA C. KASSON.
BINDING AND HEMMING ATTACHMENT FOR SEWING-MACHINE.



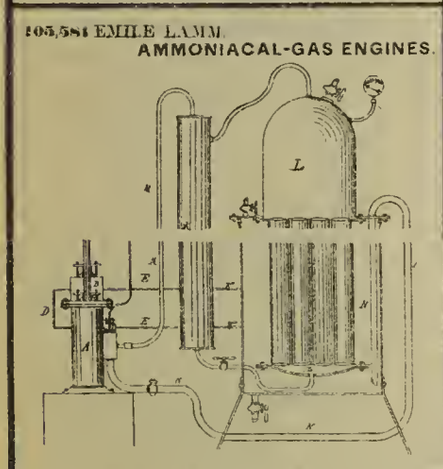
105,578. ISAAC A. KEELER.
HAND CORN-PLANTERS.



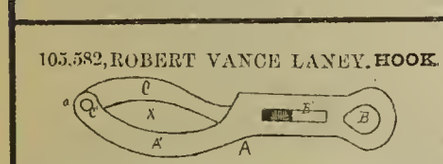
105,579, WILLIAM KELLY.
ANIMAL POKES.

105,580,
LESTER B. KENNEY.
HORSE-COLLARS.

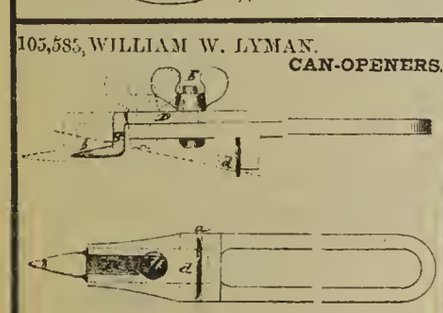
105,581 EMILE LAMM.
AMMONIACAL-GAS ENGINES.



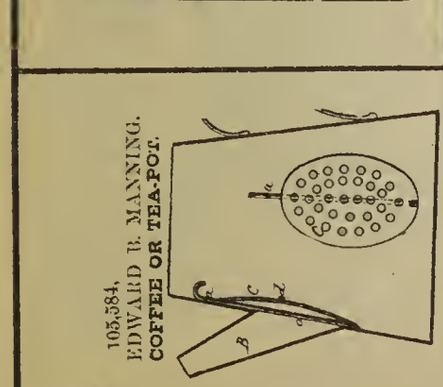
105,582, ROBERT VANCE LANEY. HOOK.



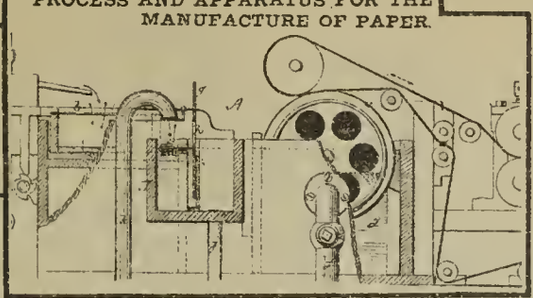
105,583, WILLIAM W. LYMAN.
CAN-OPENERS.



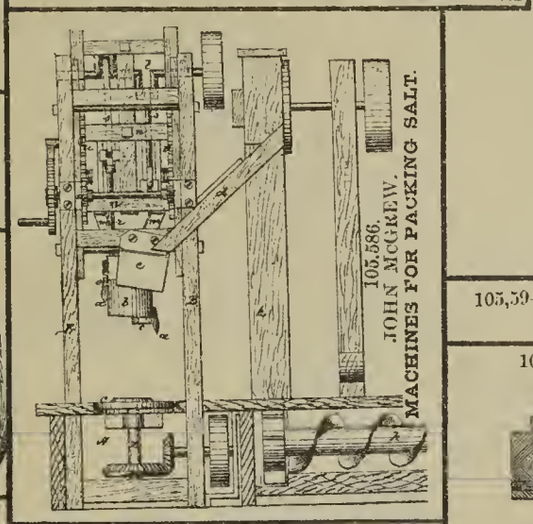
105,584,
EDWARD B. MANNING.
COFFEE OR TEA-POT.



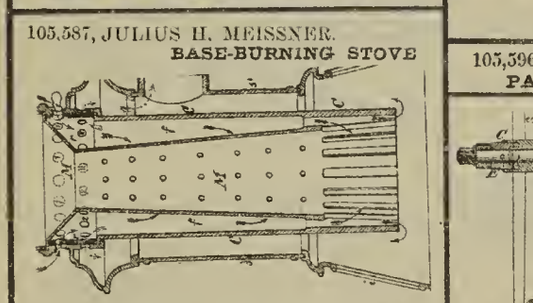
105,585, GEO. E. MARSHALL.
PROCESS AND APPARATUS FOR THE MANUFACTURE OF PAPER.



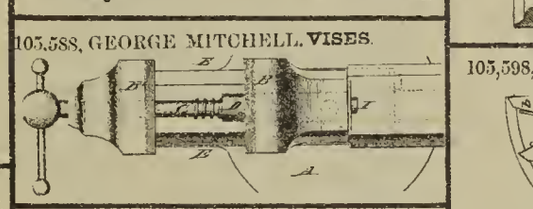
105,586.
JOHN MCGREW.
MACHINES FOR PACKING SALT.



105,587, JULIUS H. MEISSNER.
BASE-BURNING STOVE



105,588, GEORGE MITCHELL. VISES.



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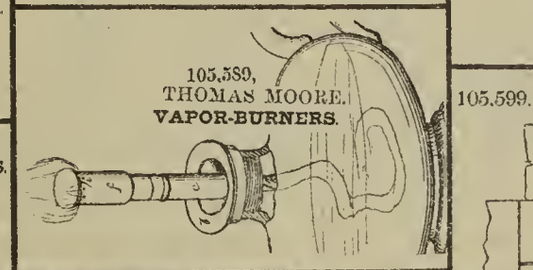
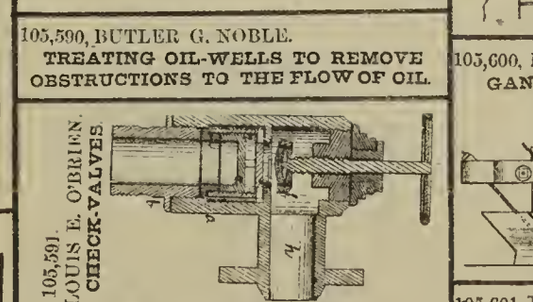
THOMAS MOORE.
VAPOR-BURNERS.

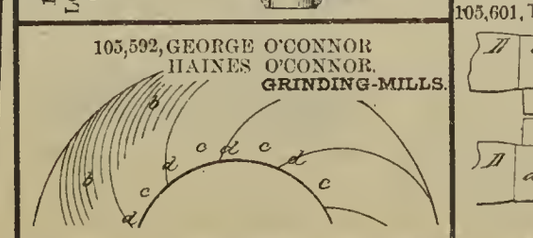


105,590, BUTLER G. NOBLE.
TREATING OIL-WELLS TO REMOVE OBSTRUCTIONS TO THE FLOW OF OIL.

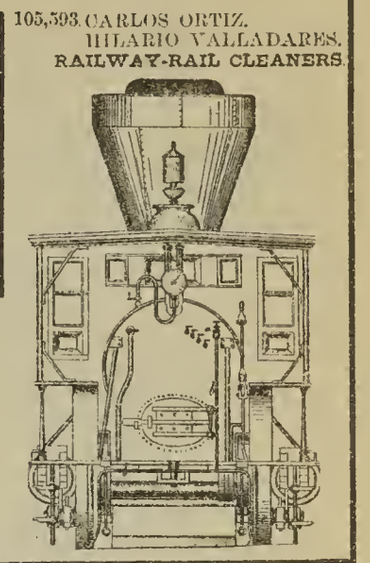
105,591.
LOUIS E. O'BRIEN.
CHECK-VALVES.



105,592, GEORGE O'CONNOR
HAINES O'CONNOR.
GRINDING-MILLS.

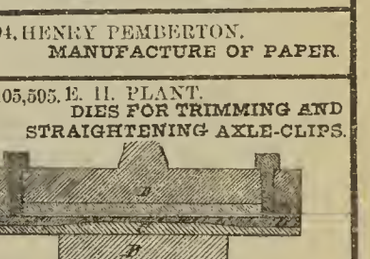


105,593. CARLOS ORTIZ.
HILARIO VALLADARES.
RAILWAY-RAIL CLEANERS.



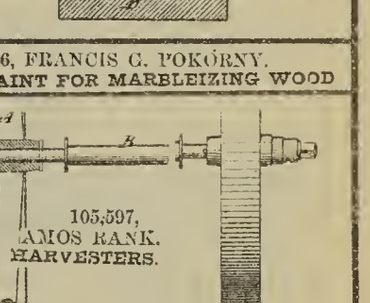
105,594, HENRY PEMBERTON.
MANUFACTURE OF PAPER.

105,595. E. H. PLANT.
DIES FOR TRIMMING AND STRAIGHTENING AXLE-CLIPS.

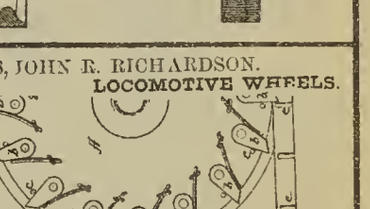


105,596, FRANCIS G. POKÓRNY.
PAINT FOR MARBLEIZING WOOD

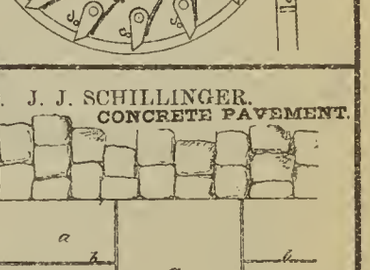
105,597,
AMOS RANK.
HARVESTERS.



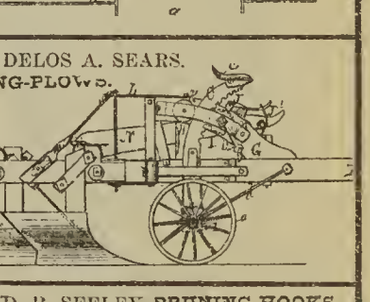
105,598, JOHN R. RICHARDSON.
LOCOMOTIVE WHEELS.



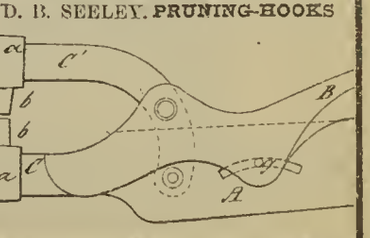
105,599. J. J. SCHILLINGER.
CONCRETE PAVEMENT.



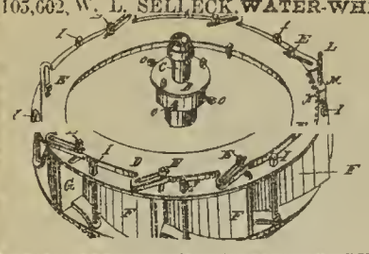
105,600, DELOS A. SEARS.
GANG-PLOWS.



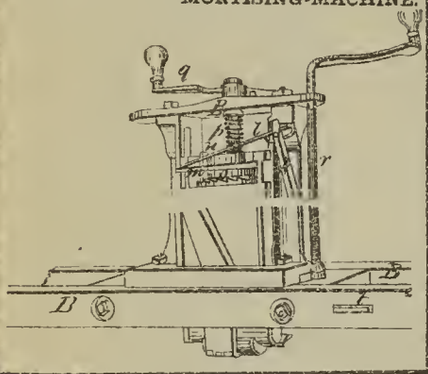
105,601, D. B. SEELEY. PRUNING-HOOKS



105,602, W. L. SELLECK, WATER-WHEELS.

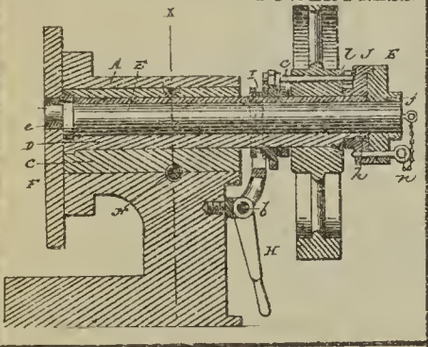


105,603, HENRY C. SMITH. MORTISING-MACHINE.

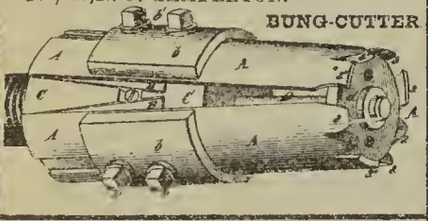


105,604, OTHNIEL J. SMITH, WRENCHES.

105,605, CHARLES M. STRATTON. OSCAR G. STRATTON. POWER-PRESS.



105,606, N. J. TEMPLETON. BUNG-CUTTER.



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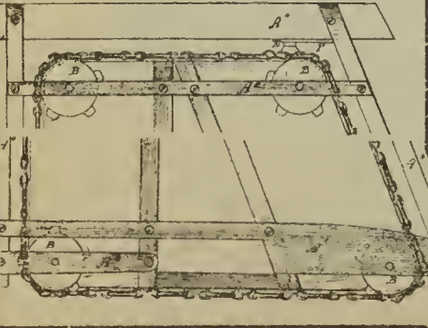
105,608, J. TOAY. HARVESTER-RAKES.



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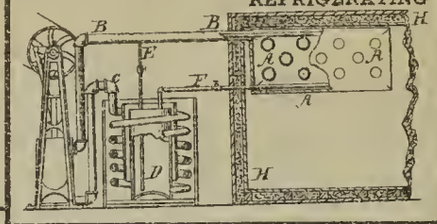

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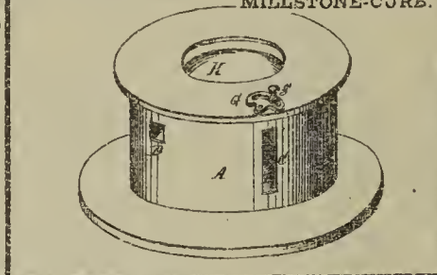

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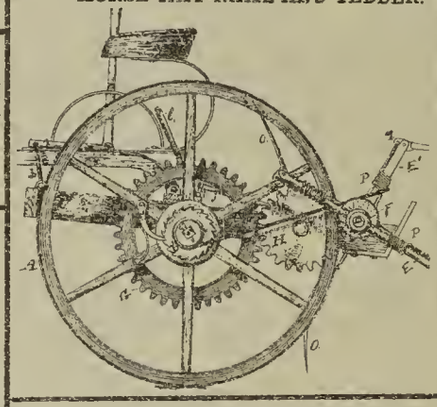

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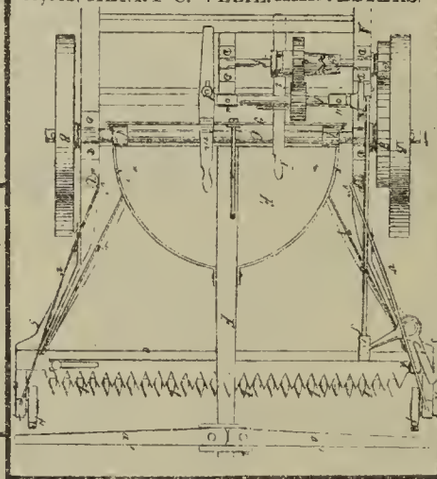

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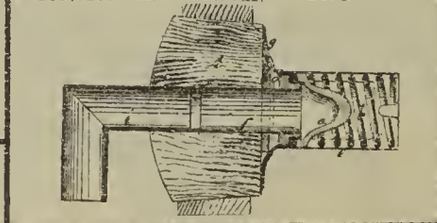

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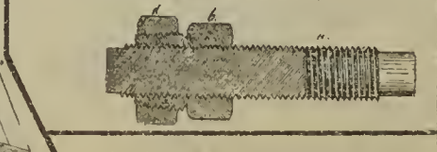
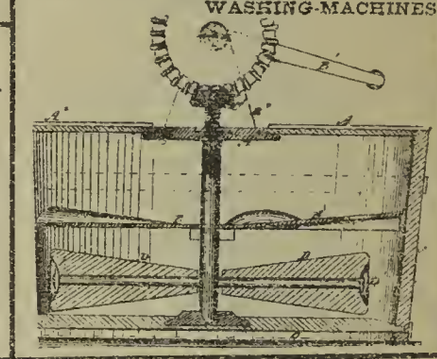


105,615. FRANKLIN WHITMORE. EDWARD CONKLIN. WEATHER-STRIP FOR DOORS.

105,616 GEO. L. WITSIL. WASHING-MACHINES.



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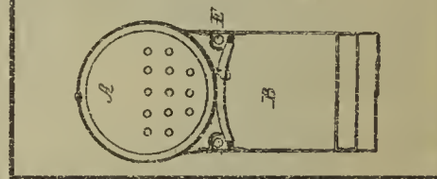
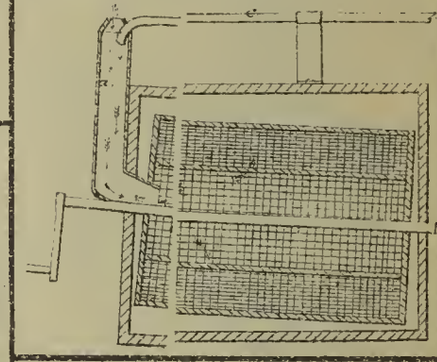
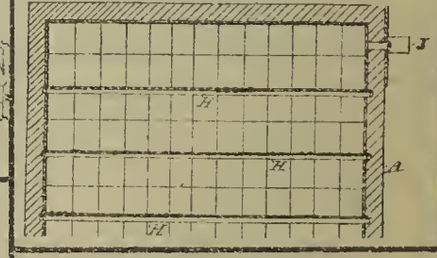


105,618, ROBERT TURNER. FLOUR-BOLT ATTACHMENT.

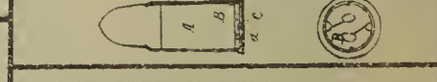


4,074, DANIEL C. COLBY. THOMAS WOODS. BENJ. F. PINE. MANUFACTURE OF WHITE LEAD.

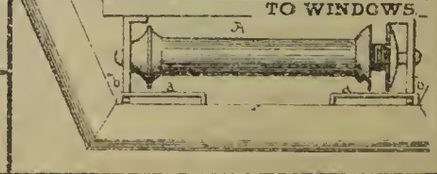


4,075. ARTHUR MOFFATT. PRIMING CARTRIDGES.

4,076. ARTHUR MOFFATT. PRIMING CARTRIDGES.



4,077, ANTHONY PEPLE. MODE OF ATTACHING CORNICES TO WINDOWS.



ILLUSTRATIONS OF PATENTS

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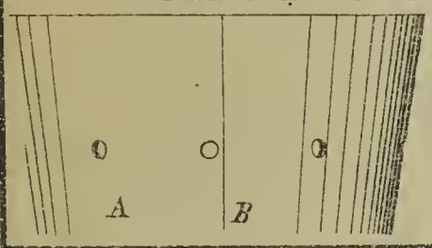
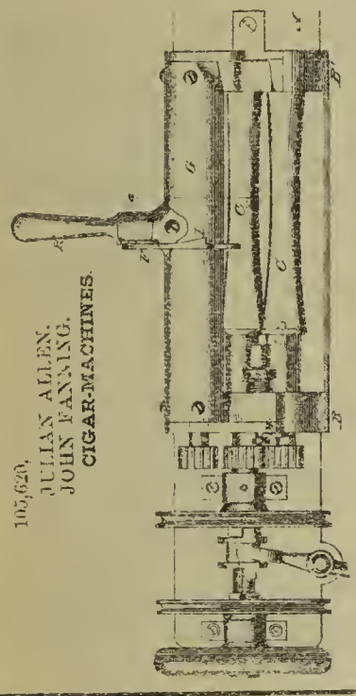
JULY 26, 1870.

105,619, ALFRED ADAMS, JOSEPH F. JEWETT.
PAPER FRUIT-BASKETS.



105,620, JULIAN ALLEN, JOHN FANNING.
CIGAR-MACHINES.



105,621, PRUDDEN ALLING.
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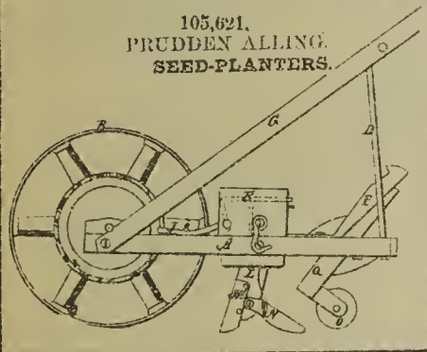
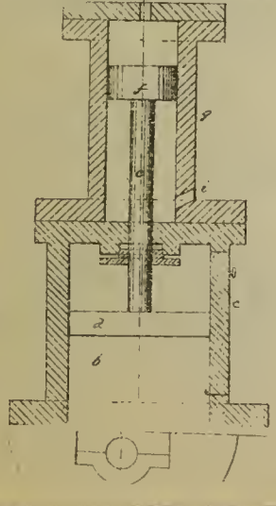


105,622, GUSTAVUS AMES.
APPARATUS FOR REDUCING WOOD TO PULP.



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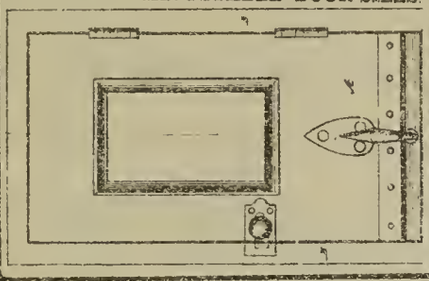
ADJUSTABLE DOOR-SILLS.



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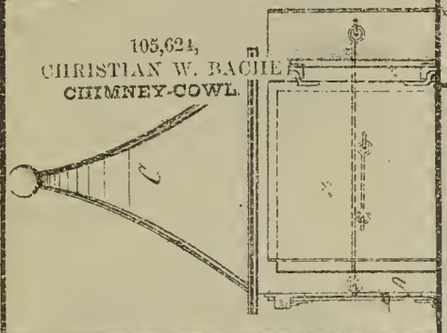
CHIMNEY-COWL.



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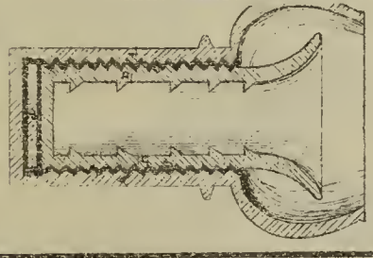
TELEGRAPH-INSULATORS.



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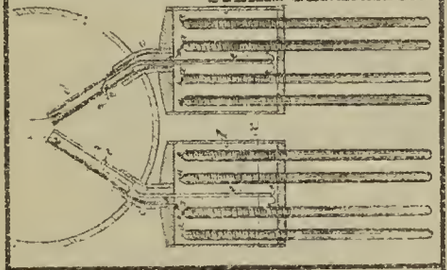

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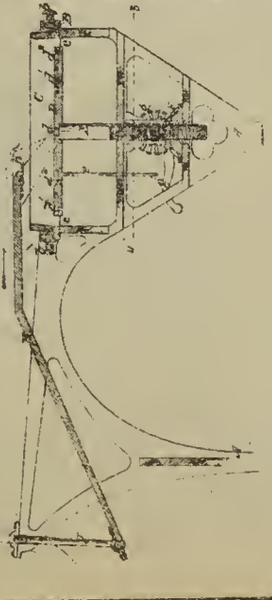
MACHINERY FOR CUTTING WAX INTO SHEETS



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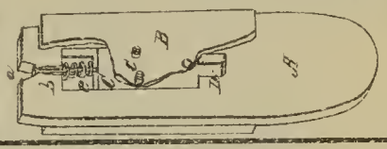

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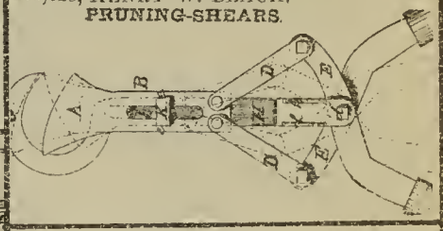

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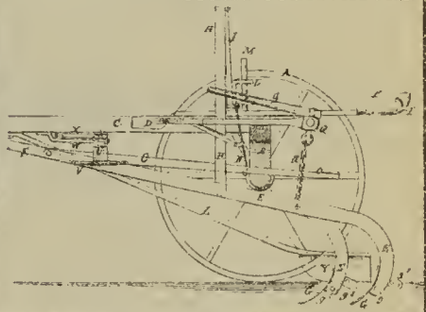
SULKY-CULTIVATORS.



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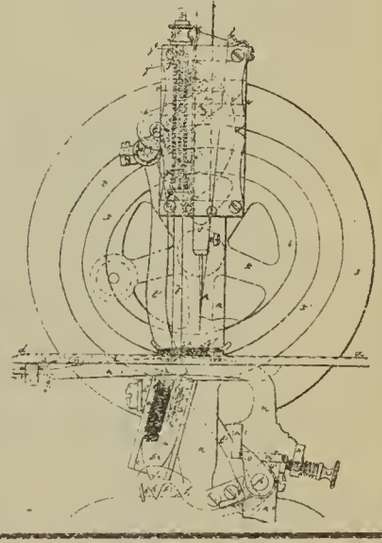

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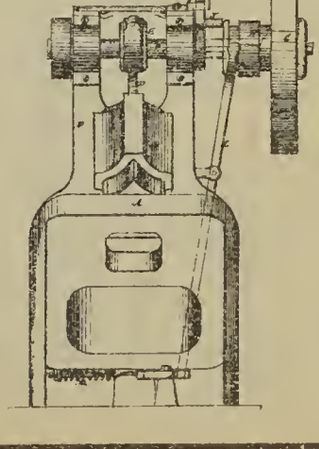
POWER-PRESS.



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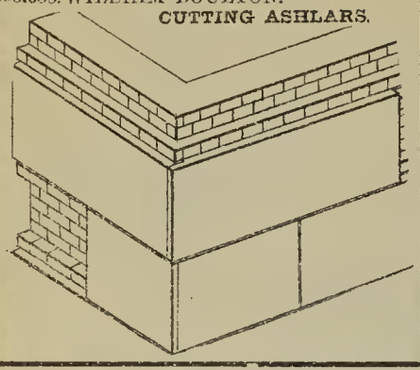
CUTTING ASHLARS.



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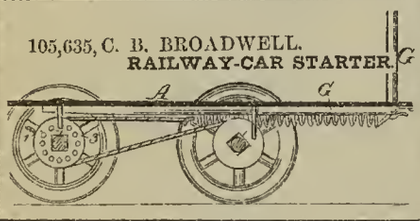
105,635, C. B. BROADWELL.
RAILWAY-CAR STARTER.



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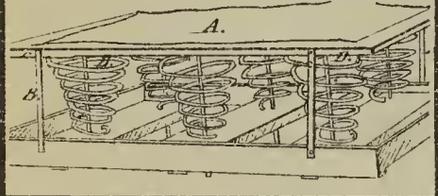
SPRING BED-BOTTOM.



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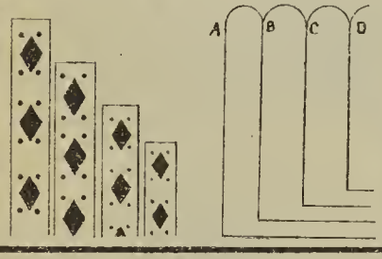
DESIGN-DIES FOR ORNAMENTING.



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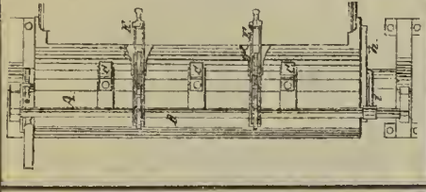
GAUGES FOR PRINTING-PRESSES



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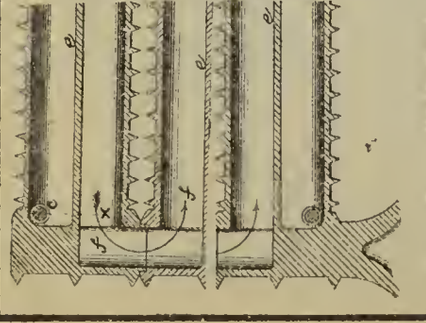
105,640 BENJAMIN F. CAMPBELL.
CHARLES WHITTIER.
STEAM HEATER.



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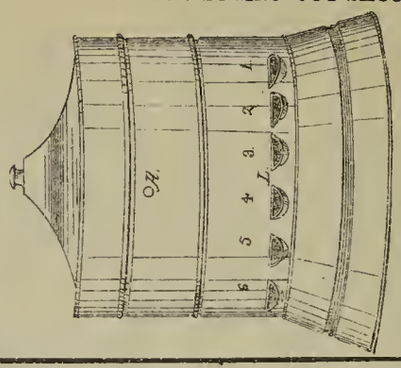
RECEPTACLE FOR MEASURING OUT SHOT.



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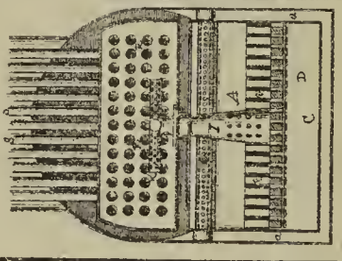

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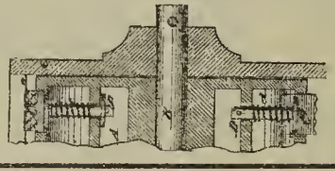

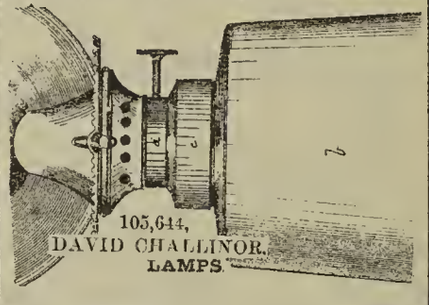

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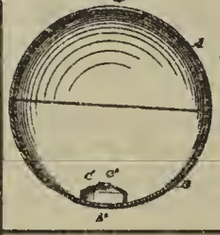

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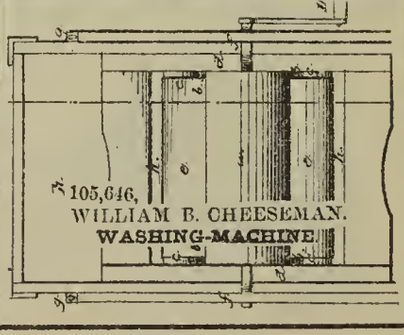

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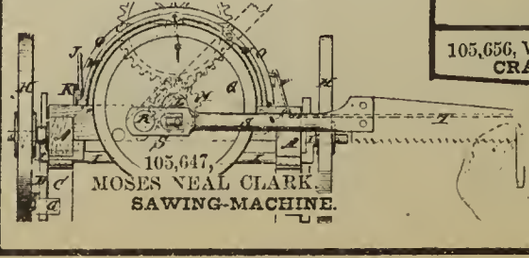

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MOSES NEAL CLARK.
SAWING-MACHINE.

105,648. THOMAS S. CLARK.
WATER-PROOF CEMENT.

105,649, JAMES CONNER.
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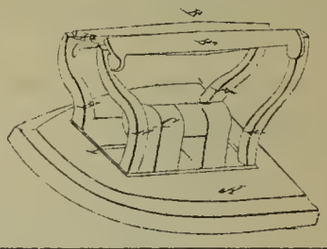

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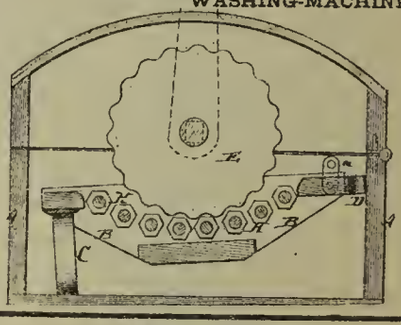

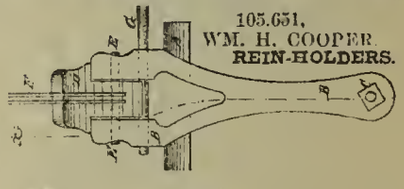

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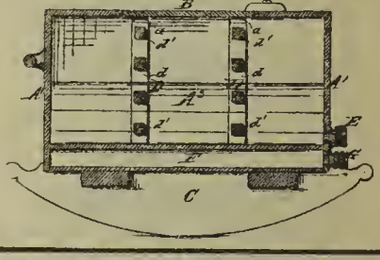
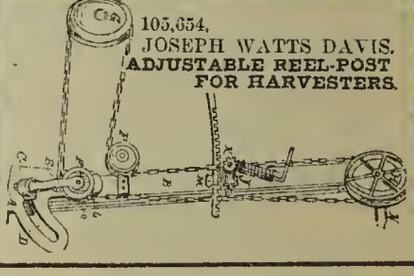
105,652, W. H. CURTIN.
WILLIAM LAMMERS. CHURNS.

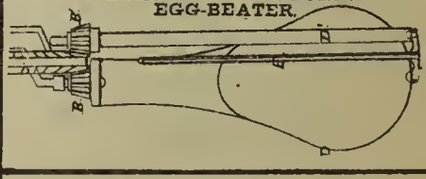


105,653. L. GUYOT D'ARLINCOURT.
RELAY MAGNETS.

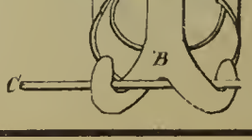
105,654,
JOSEPH WATTS DAVIS.
ADJUSTABLE REEL-POST FOR HARVESTERS.



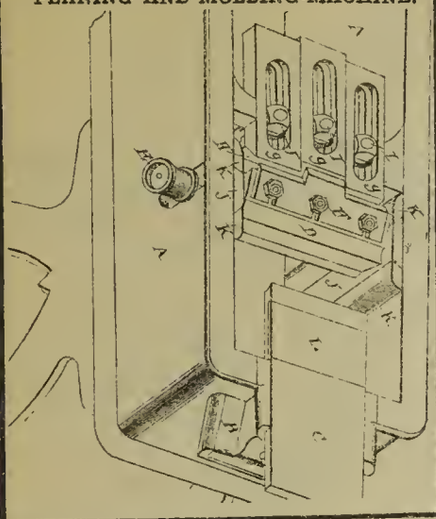
105,655. GILBERT K. DEARBORN.
EGG-BEATER.



105,656, WM. H. DECHANT.
CRAMP-HOOK FOR TELEGRAPHIC-WIRE INSULATORS.

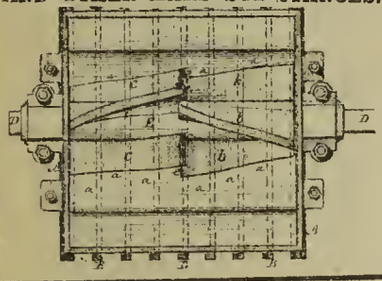


105,657, FRANK DOUGLAS.
PLANING AND MOLDING-MACHINE.

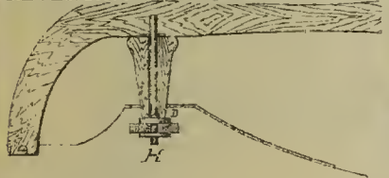


105,658, HENRY DOWSON.
WOOD PAVEMENT.

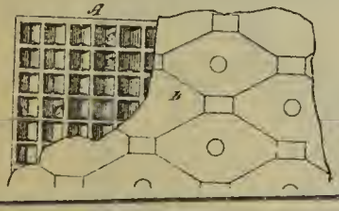
105,659, D. C. EBAUGH.
MACHINES FOR CRUSHING MINERAL AND OTHER HARD SUB-STANCES.



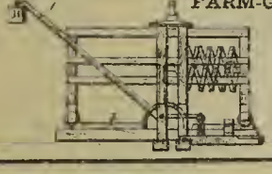
105,660, WM. M. ECCLES. DEVICE FOR PREVENTING PLOWS FROM CHOKING.



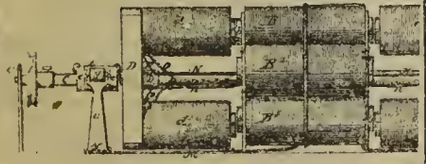
105,661, NELSON EDWARDS.
CARPET "UNDERLIE.



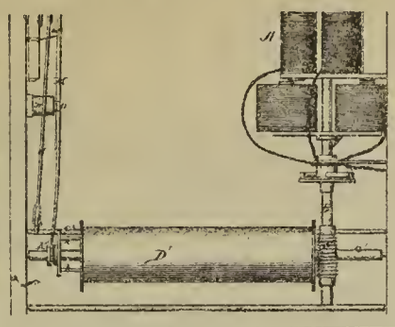
105,662, GEORGE J. FIEDLER.
FARM-GATES.



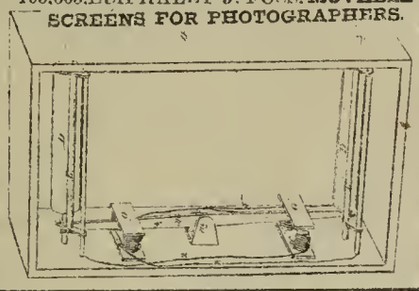
105,663, LOUIS FINGER.
ELECTRO-MAGNETIC MOTORS.



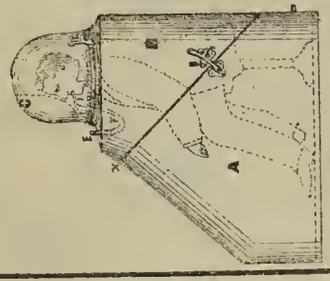
105,664, LOUIS FINGER.
ELECTRO-MAGNETIC APPARATUS FOR MOVING PANORAMAS.



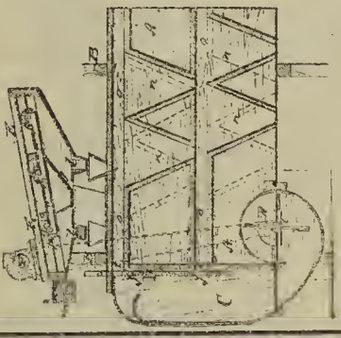
105,665. ELIPHALET J. FOSS. MOVABLE SCREENS FOR PHOTOGRAPHERS.



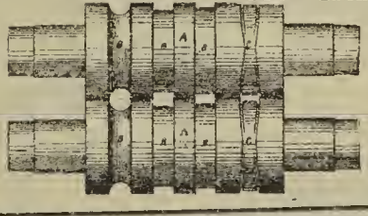
105,666. SAMUEL C. FRINK. DEPURATORS.



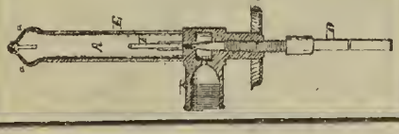
105,667. G. GESSERT. FLOUR SIFTER.



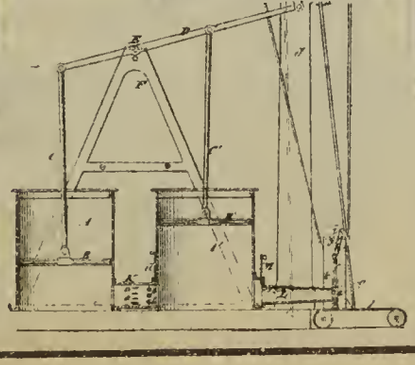
105,668. WILLIAM GILMAN.
MACHINES FOR ROLLING PLOW-BEAMS.



105,669, LYMAN A. GOUCH.
VAPOR-BURNERS.

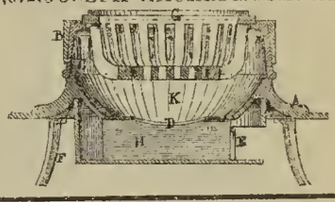


105,670. LOUIS GROUX.
MANUFACTURE OF SOAP.

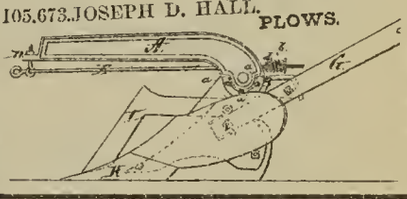


105,671. TIMOTHY GUNN.
BOOT-JACK AND SPUR.

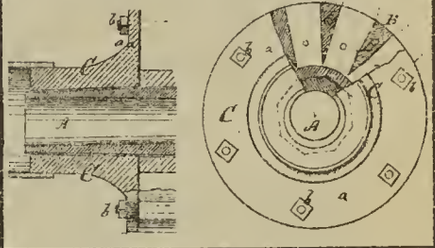
105,672. JOSEPH HACKETT. COAL-STOVE



105,673. JOSEPH D. HALL.
PLOWS.

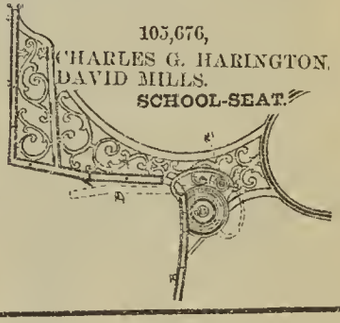


105,674. JOHN D. HAM. WAGON-HUBS.

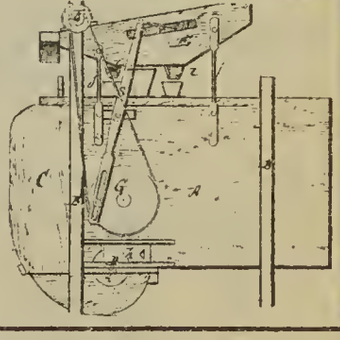


105,675, MATTHEW HARBSTER. BOLTS.

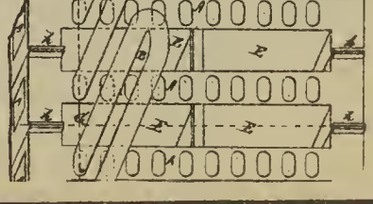
105,676,
CHARLES G. HARINGTON,
DAVID MILLS.
SCHOOL-SEAT.



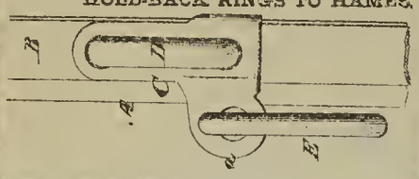
105,677, M. P. HARLEY.
CHAIR AND LOUNGE.



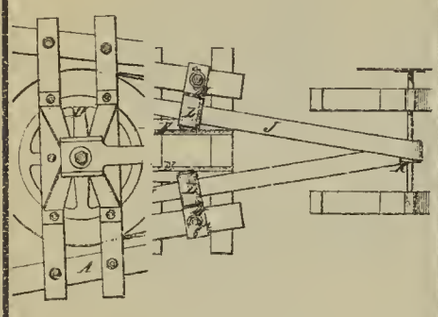
105,678, JOHN M. HARTMAN.
OVENS OR STOVES FOR HEATING THE BLAST OF BLAST-FUR NACES.



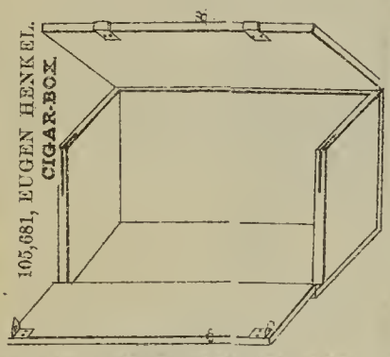
105,679, WM. B. HAYDEN.
MODE OF ATTACHING HOLD-BACK RINGS TO HAMES.



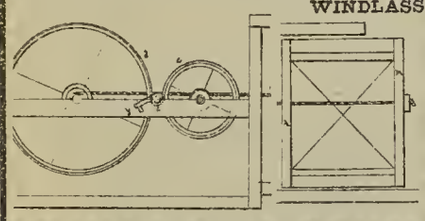
105,680, J. R. HEDGES. HORSE-POWERS.



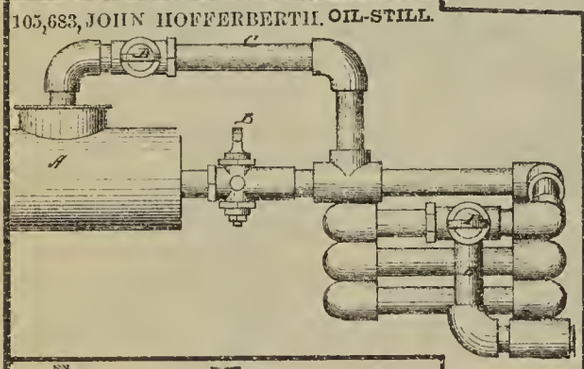
105,681, EUGEN HENKEL.
CIGAR-BOX.



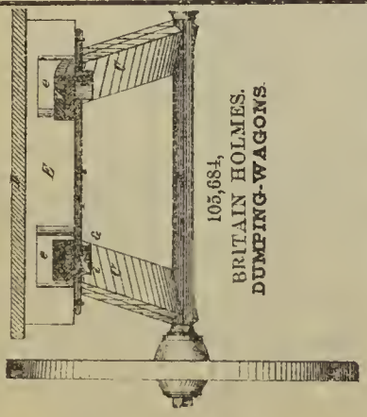
105,682, ALONZO HITCHCOCK.
WINDLASS.



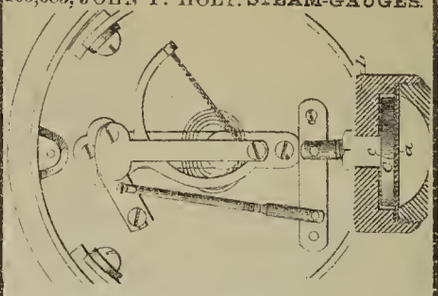
105,683, JOHN HOFFERBERTH. OIL-STILL.



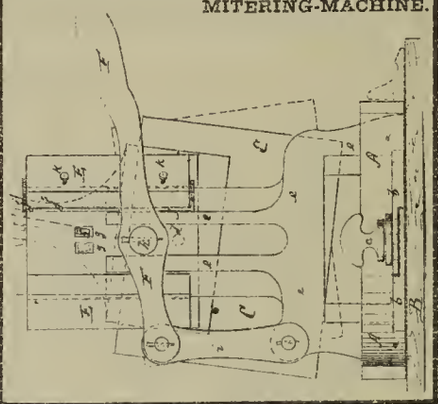
105,684, BRITAIN HOLMES.
DUMPING-WAGONS.



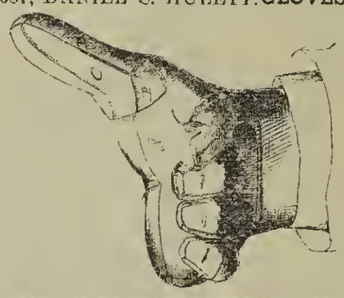
105,685, JOHN P. HOLT. STEAM-GAUGES.



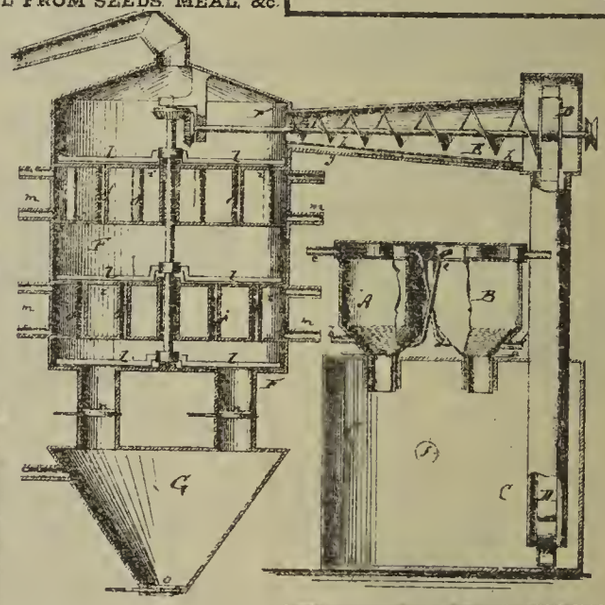
105,686, JOHN HOLZBERGER.
MITERING-MACHINE.



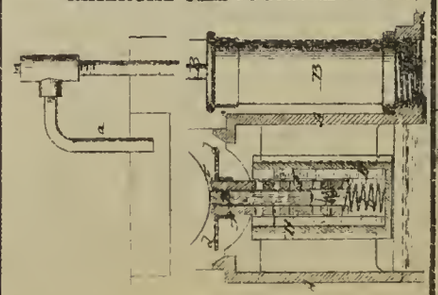
105,687, DANIEL S. HULETT. GLOVES.



105,688, ELIAS S. HUTCHINSON.
APPARATUS FOR REMOVING OIL FROM SEEDS, MEAL, &c.



105,689, CHARLES IHRIG.
RAILROAD-CAR JOURNAL-BOXES.



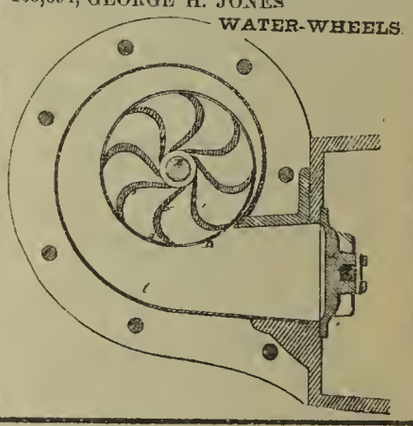
105,690, JOSEPH INGELS.
GRAIN-DRILLING MACHINES

105,691.
JOSEPH INGELS.
PADLOCKS

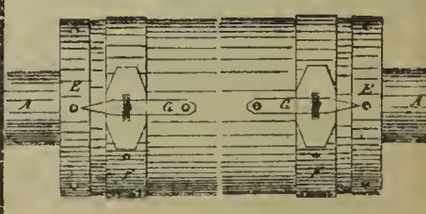
105,692, HENRY M. JOHNSTON
LAMBREQUINS.

105,693, HENRY M. JOHNSTON.
LAMBREQUINS.

105,694, GEORGE H. JONES
WATER-WHEELS.

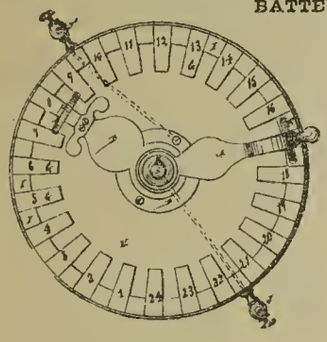


105,695, MARQUIS R. JONES.
BOXING FOR COVERING THE SHAFTING OF MACHINERY.

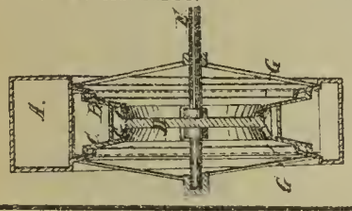


105,696, MOSES A. KELLER.
UNIVERSAL SHAFT-COUPLING.

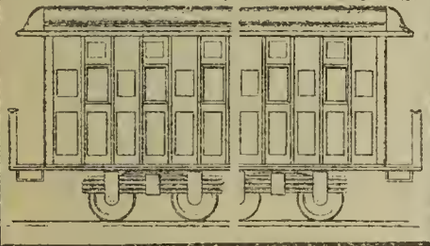
105,697, JEROME KIDDER, M. D.
COMPOUND SWITCHES FOR ELECTRIC BATTERIES.



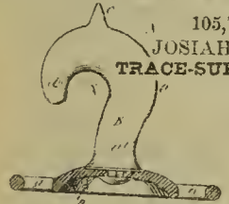
105,698. A. KNEASS. WATER WHEEL.



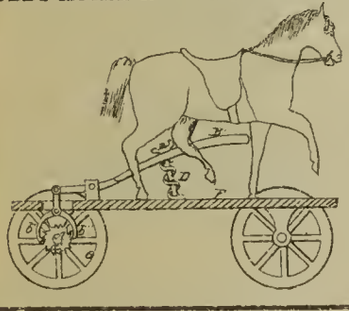
105,699, B. J. LA MOTHE.
METALLIC RAILWAY-CARS.



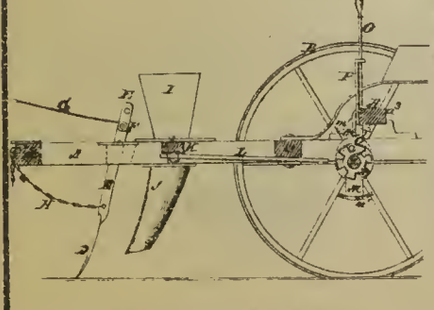
105,700,
JOSIAH LETCHWORTH.
TRACE-SUPPORTING STUD.



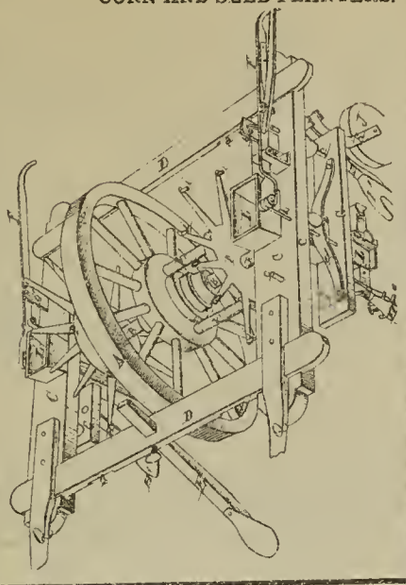
105,701 JOHN LIMING. COMBINED
HOBBY-HORSE AND CARRIAGE-MOTOR.



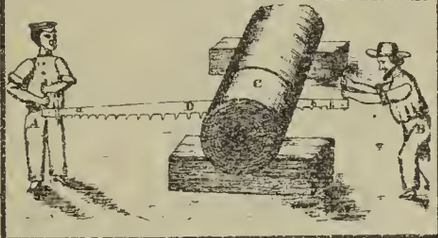
105,702, WILLIAM H. LITTEL.
CORN-PLANTERS.



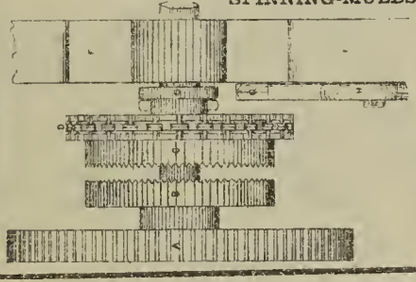
105,703, WILBER C. LOCKWOOD.
CORN AND SEED-PLANTERS.



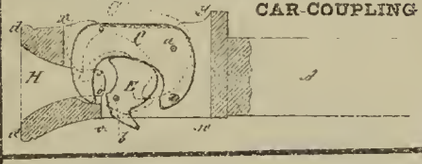
105,704, PETER LONGWELL.
CROSS-CUT SAWS.



105,705, HEZEKIAH MACON.
JOSHUA HUNT.
DEVICE FOR PREVENTING THE UNCOUPLING OF CLUTCHES IN SPINNING-MULES.

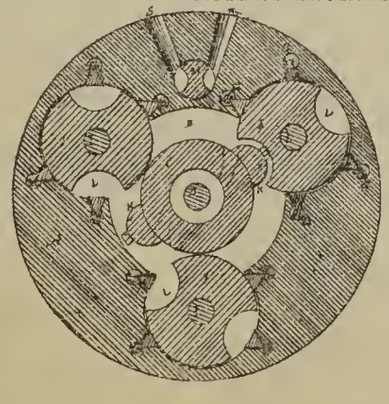


105,706, MALANCTHON B. MALOTT.
CAR-COUPLING

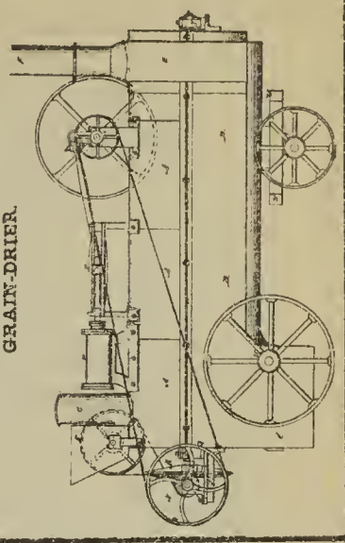


105,707, DUNCAN McKENZIE.
WOOD PAVEMENTS.

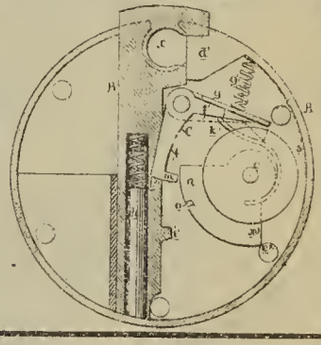
105,708, EDWIN D. MEAD.
ROTARY ENGINES.



105,709.
ROBT. MILBURN.
THOS. BROWNING
GRAIN-DRIER.



105,710.
D. K. MILLER.
PADLOCKS.



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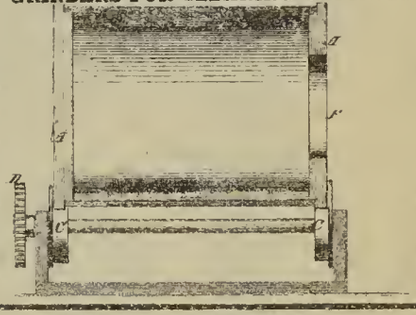
GRINDERS FOR CLEANING CASTINGS.



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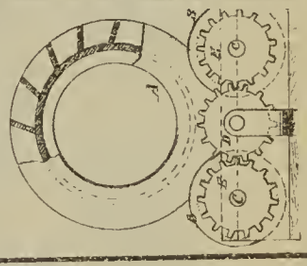
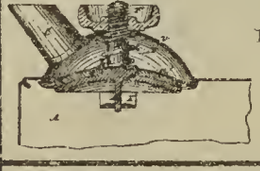
GEORGE MILLER.
WATER-WHEELS.





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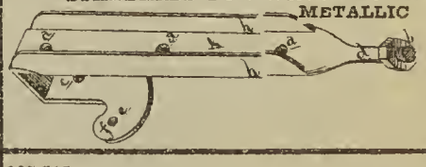
H. MILLER.
TAP-NOZZLES
FOR CANS.

105,714, EDWARD MILNER.
STANDARDS FOR WAGON-BOXES
METALLIC



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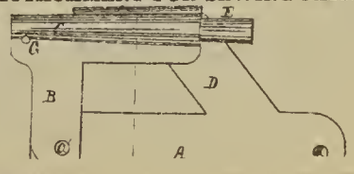
SCHAMU MORITZ MOSCHCOWITZ.
ATTACHMENT FOR SEWING-MACHINE.



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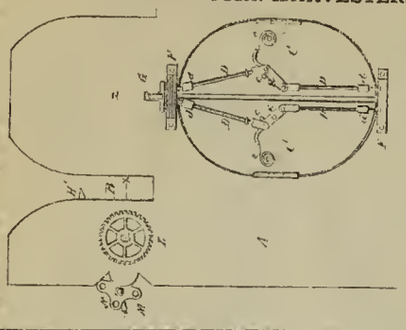
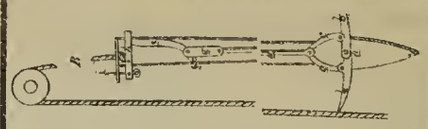
CORN-HARVESTERS.





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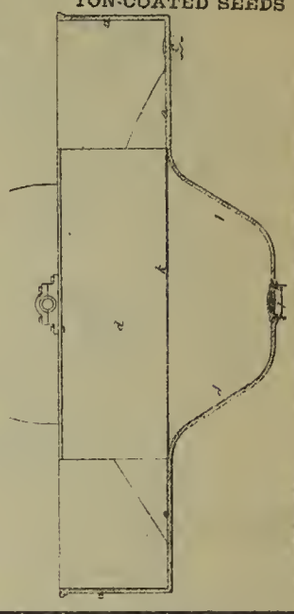
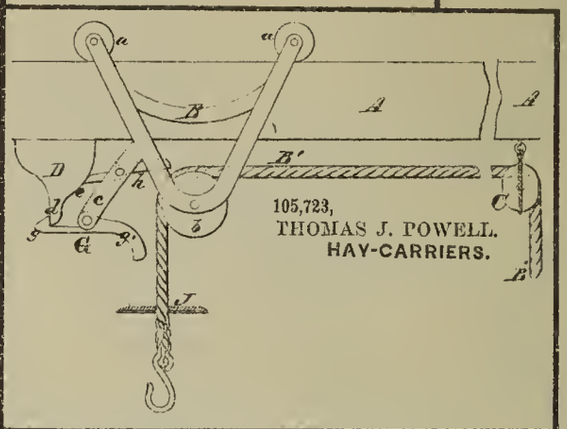
ROBERT EMERSON GIBSON.
PROCESS FOR SEPARATING THE FIBER FROM THE HUSK IN COTTON-COATED SEEDS





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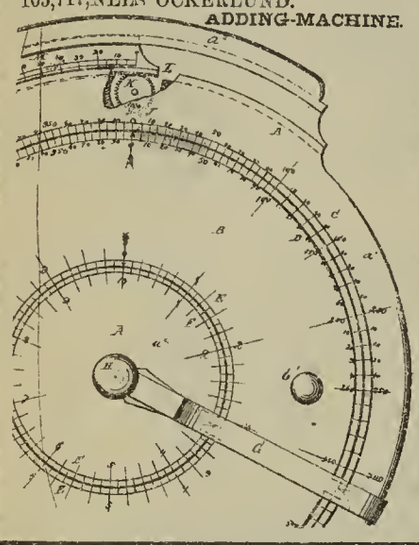
THOMAS J. POWELL.
HAY-CARRIERS.

105,717, NELS OCKERLUND.
ADDING-MACHINE.



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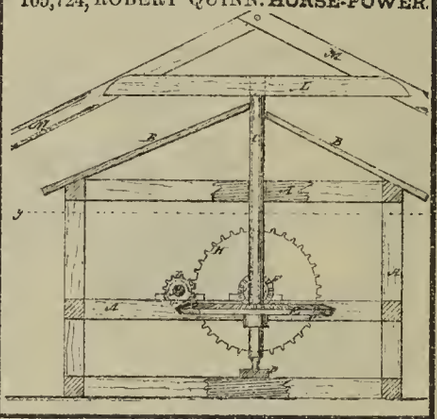
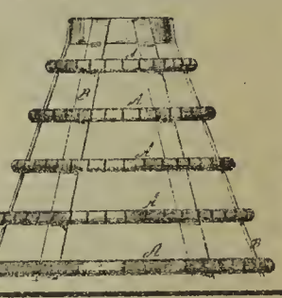
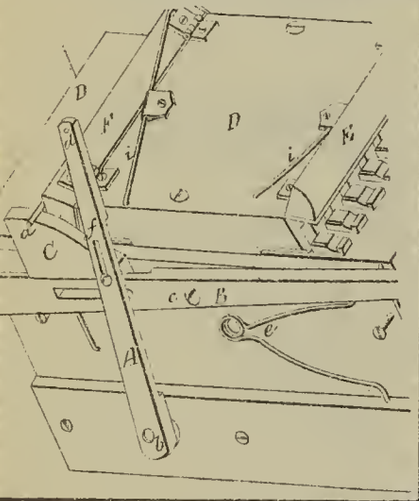


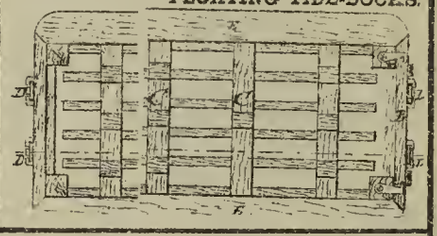
105,730 SARAH E. SAUL.
LIFE-PRESERVING SKIRT.



105,718, ISAAC T. PACKARD.
REED MUSICAL INSTRUMENTS.



105,725, WILLIAM RICKARD.
FLOATING TIDE-DOCKS.



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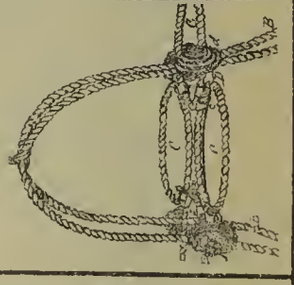
EDWARD P. WOODS.
GEORGE D. DUDLEY.
TABLE-CASTER.



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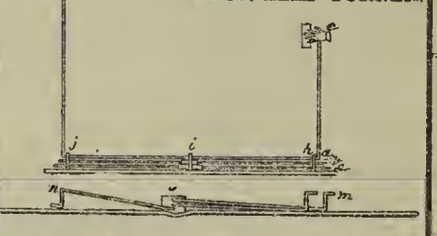
MUSIC-LEAF TURNER.



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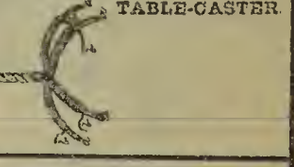
GEORGE D. DUDLEY.
TABLE-CASTER.



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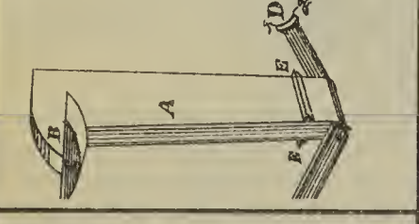
PLANKING-SET.



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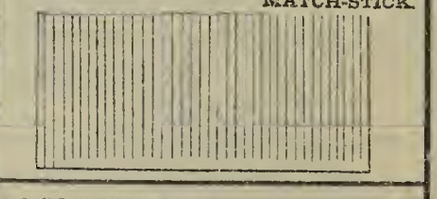
MATCH-STICK.



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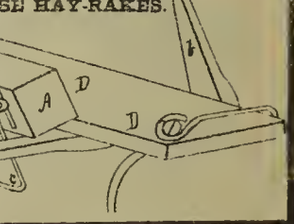
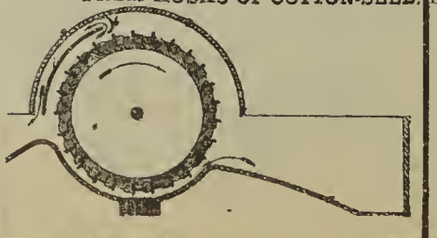
HORSE HAY-RAKES.



105,720, C. F. PARROTT. TREATING AND PRESERVING GRAIN IN BULK.

105,721 GURDON W. PITCHER. TABLET LOCKET FOR PHOTOGRAPHS, &c.

105,728, THOMAS ROSE.
ROBERT EMERSON GIBSON.
ENGINES FOR SEPARATING FIBER FROM HUSKS OF COTTON-SEED.



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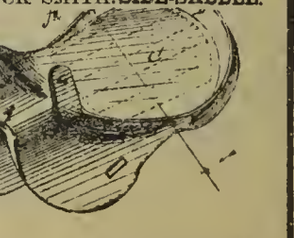

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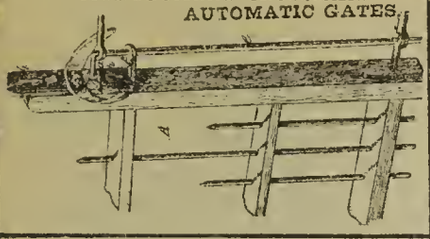
HORSE HAY-FORKS.

105,735, PRATT A. SPICER.
MONTGOMERY CROSSMAN.
AUTOMATIC GATES.



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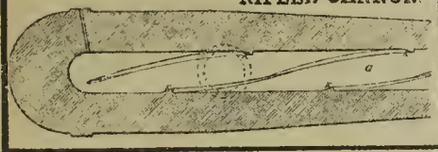
RIFLED CANNON.



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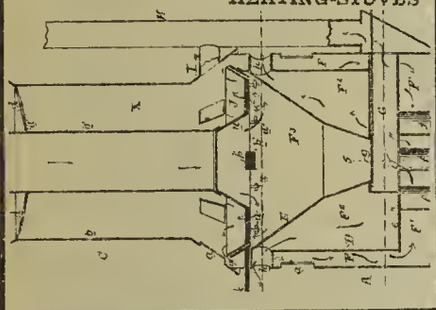
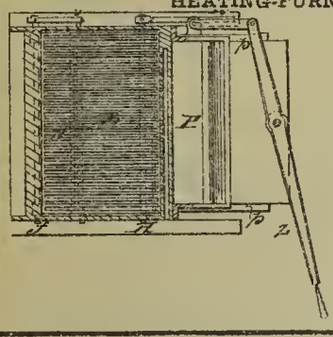
HEATING-STOVES



105,738. WM. A. SWEET.
HEATING-FURNACES.



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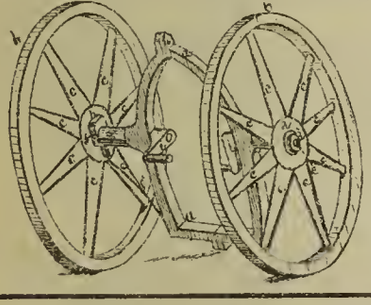
VELOCIPEDES.



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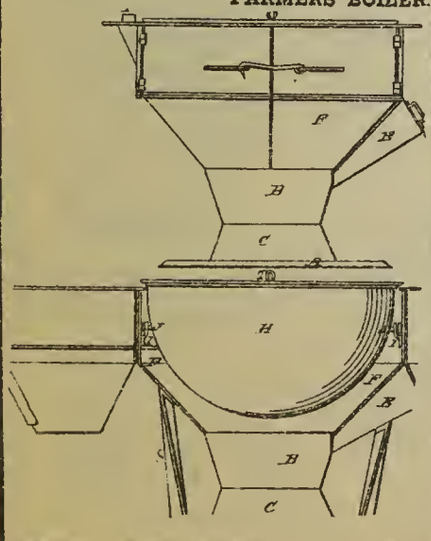
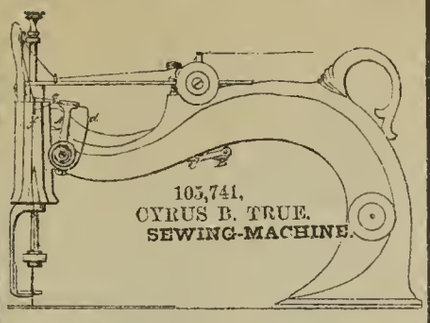
FARMERS' BOILER.





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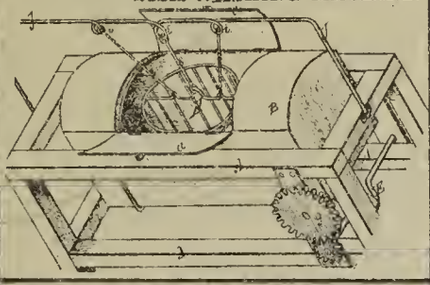
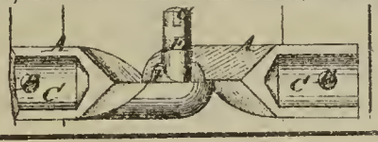
CYRUS B. TRUE.
SEWING-MACHINE.

105,742, SOPHIA S. TUPPER.
DISH-WASHING MACHINE.



105,743. SAMUEL D. VAN PELT. HINGES.



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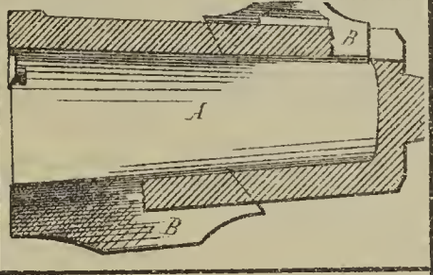
HOLLOW AUGER.



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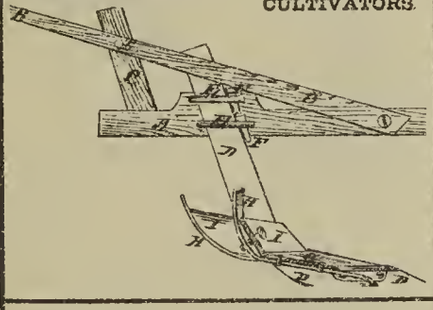
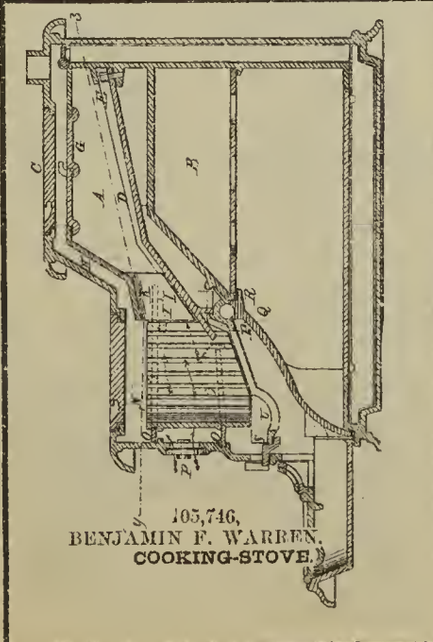
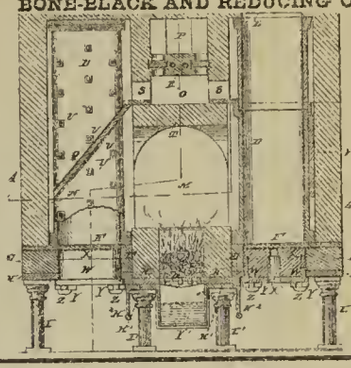
CULTIVATORS.





105,746,
BENJAMIN F. WARREN.
COOKING-STOVE.

105,747. ADAM WEBER.
FURNACES FOR REBURNING
BONE-BLACK AND REDUCING ORES.



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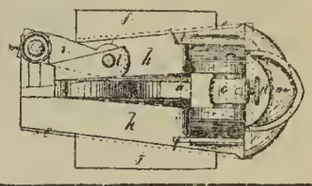
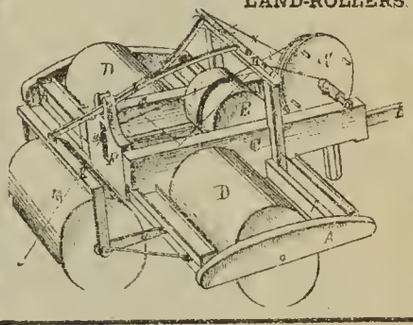
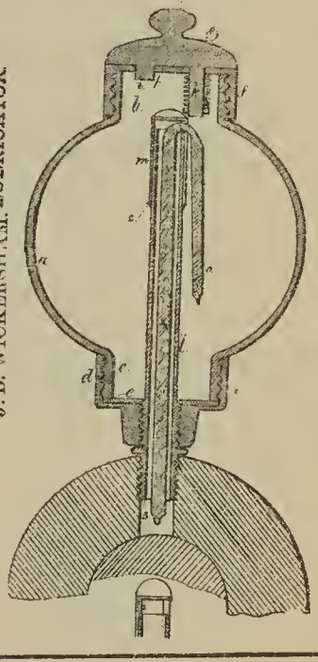


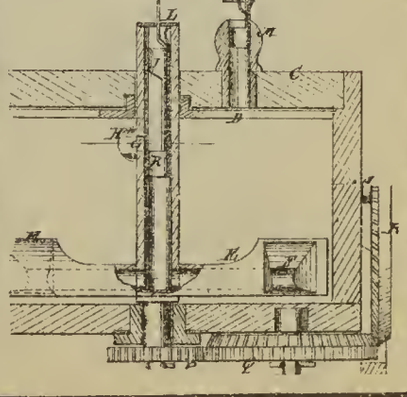
105,749, ELISHA WHITCOMB
DANIEL A. GUNN.
LAND-ROLLERS.



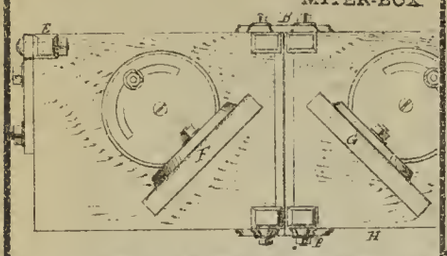
105,750,
J. B. WICKERSHAM. LUBRICATOR.



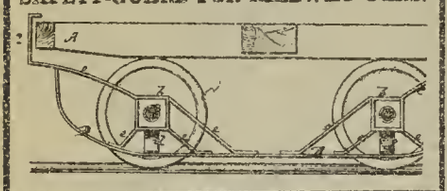
105,751 M. J. WIKOFF CHURNS.



105,752, EDWARD M. WILCOX.
MITER-BOX.



105,753, JOHN ATWATER WILKINSON.
SAFETY-GUARD FOR RAILWAY CARS.



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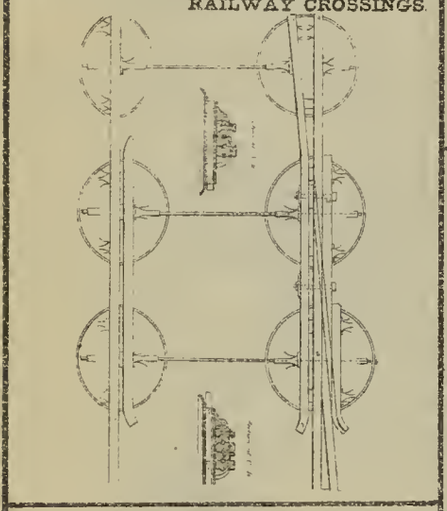
RAILWAY CROSSINGS.



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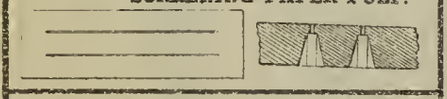
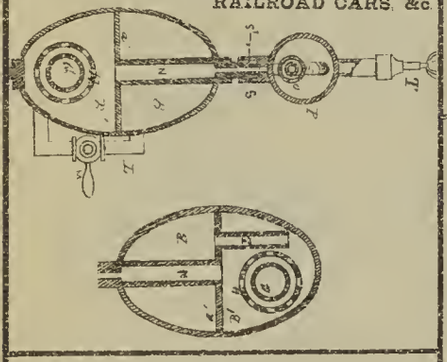
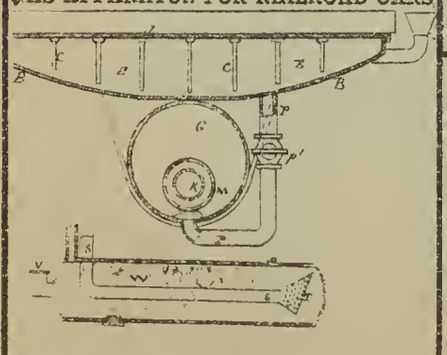
ARTHUR ST. CLAIR WINCHESTER.
METALLIC PLATE-SCREEN FOR SCREENING PAPER PULP.



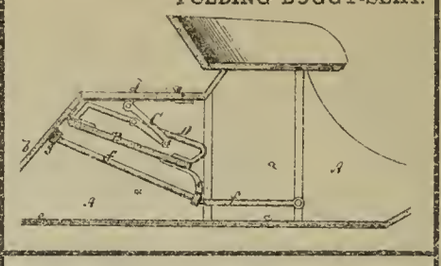
105,756, JOSEPH S. WOOD.
GAS APPARATUS FOR RAILROAD CARS, &c.



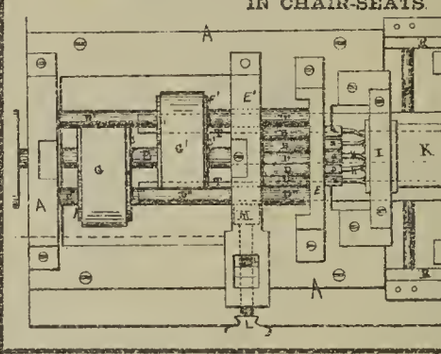
105,757, JOSEPH S. WOOD.
GAS APPARATUS FOR RAILROAD CARS.



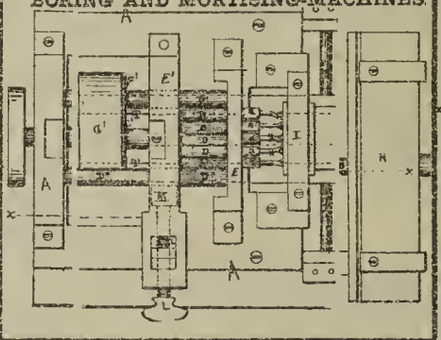
105,758, THOMAS H. WOOD.
FOLDING BUGGY-SEAT.



105,759, BENJ. F. WRIGHT
JOHN ROWE, JR.
PREPARING RAWHIDE FOR USE IN CHAIR-SEATS.



105,760, SIMEON M. WRIGHT.
BORING AND MORTISING-MACHINES.



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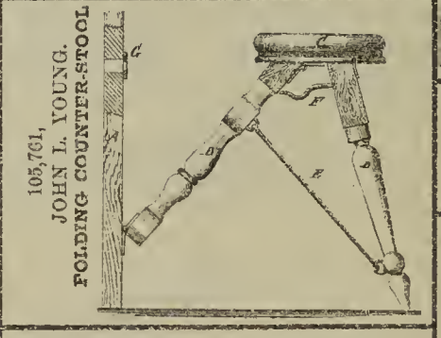
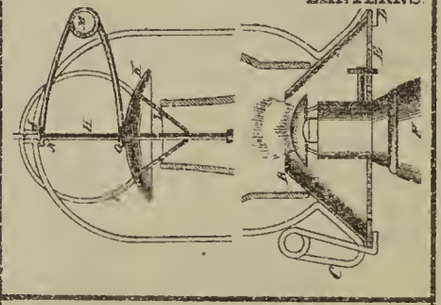
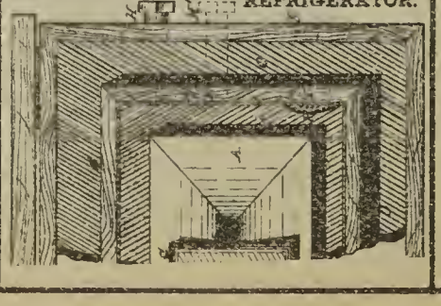
JOHN L. YOUNG.
FOLDING COUNTER-STOOL



105,762. McCLINTOCK YOUNG.
LANTERNS.



105,763, IGNAZIO ALLEGRETTI.
REFRIGERATOR.



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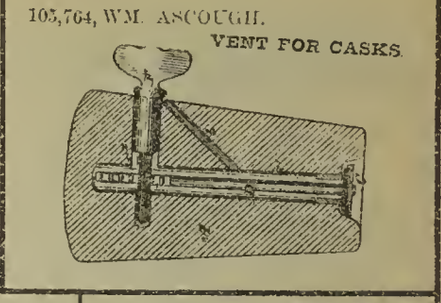
VENT FOR CASKS.



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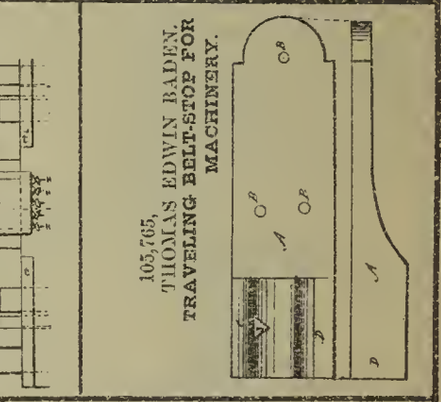
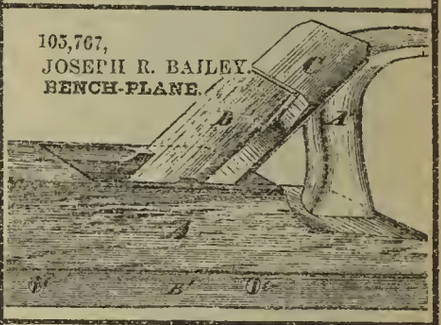
THOMAS EDWIN BADEN.
TRAVELING BELT-STOP FOR MACHINERY.



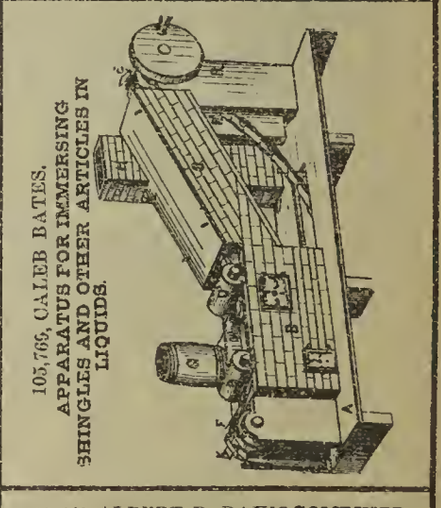
105,766,
JOSEPH R. BAILEY.
BOX-SCRAPER.

105,767,
JOSEPH R. BAILEY.
BENCH-PLANE.

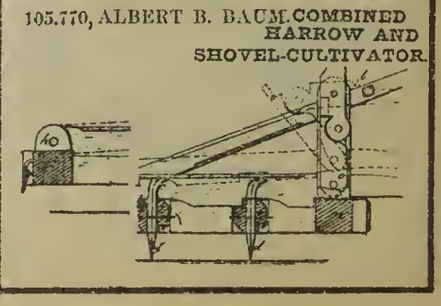


105,768, JOHN F. BARKER.
GAS-BURNERS.

105,769, CALEB BATES.
APPARATUS FOR IMMERSING SHINGLES AND OTHER ARTICLES IN LIQUIDS.



105,770, ALBERT B. BAUM. COMBINED HARROW AND SHOVEL-CULTIVATOR.



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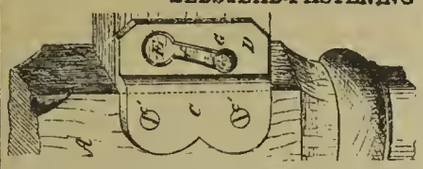
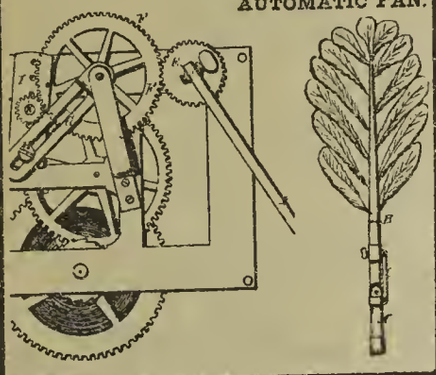
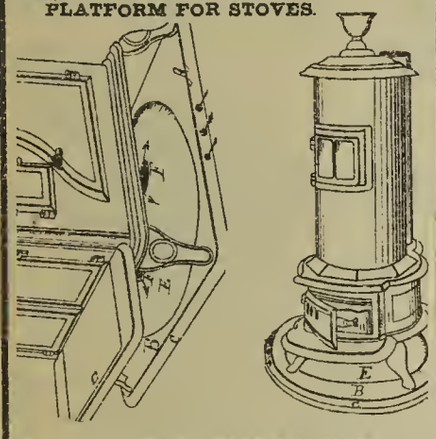
BEDSTEAD-FASTENING



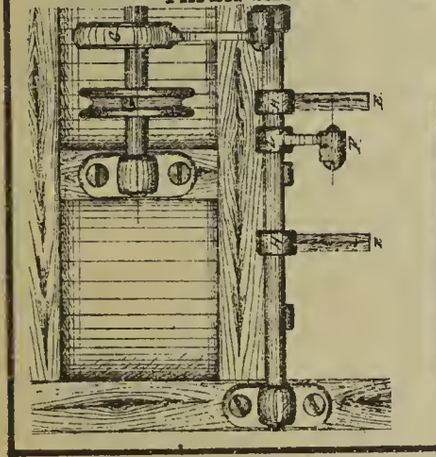
105,772. GEO. H. BRIGGS.
AUTOMATIC FAN.



105,773. C. BROWNELL.
PLATFORM FOR STOVES.



105,774, HENRY W. BULKLEY.
MACHINE FOR FLOCKING WALL-PAPER, SHOW-CARDS, &c.



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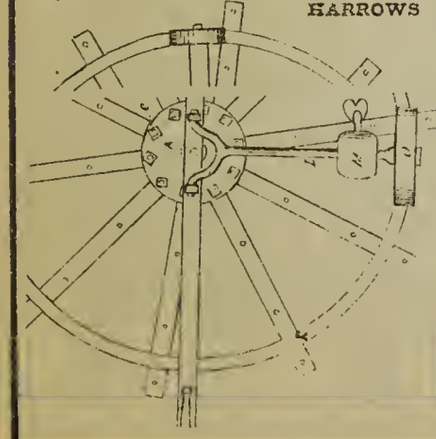
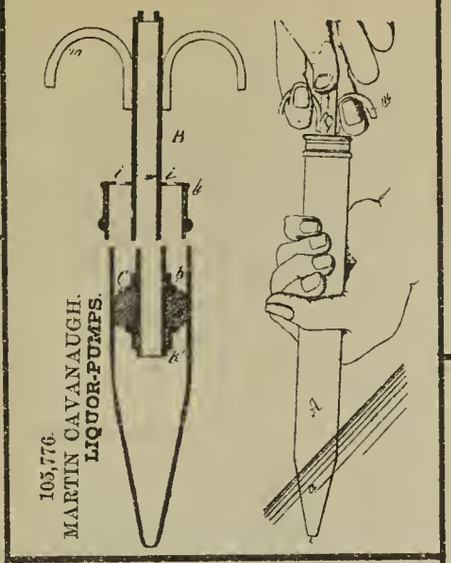
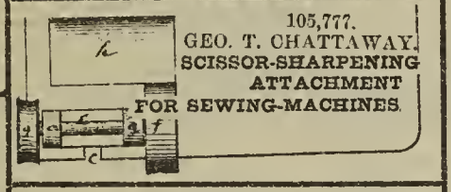
HARROWS



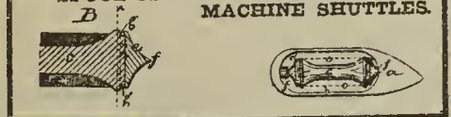
105,776.
MARTIN CAVANAUGH.
LIQUOR-PUMPS.



105,777.
GEO. T. CHATTAWAY.
SCISSOR-SHARPENING ATTACHMENT FOR SEWING-MACHINES.



105,778 D. M. CHURCH.
SPOOL OF THREAD FOR SEWING-MACHINE SHUTTLES.



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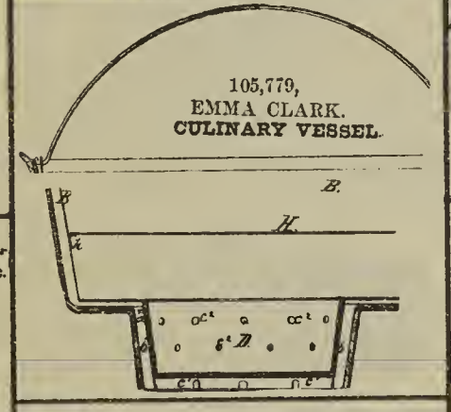
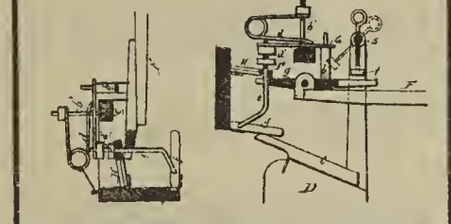
EMMA CLARK.
CULINARY VESSEL.



105,780, HUGH ARCHIBALD CLARKE.
ORGANS, MELODEONS, &c.



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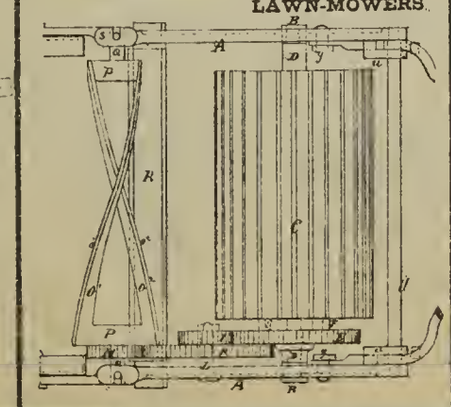
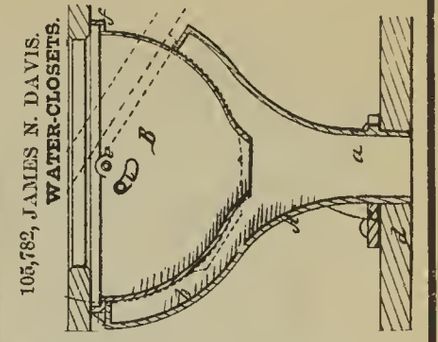
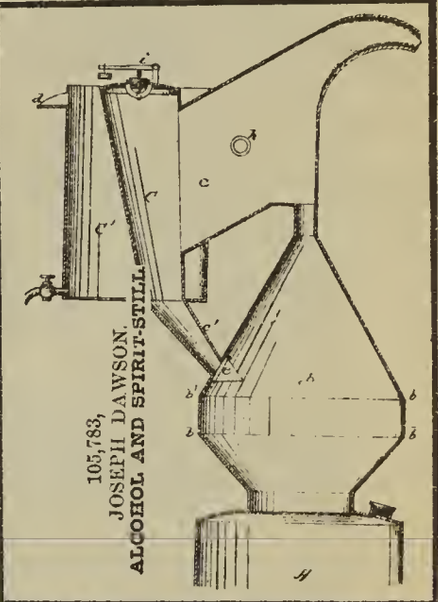
GEORGE L. CHADBORN.
LAWN-MOWERS.



105,782, JAMES N. DAVIS.
WATER-CLOSETS.



105,783,
JOSEPH DAWSON.
ALCOHOL AND SPIRIT-STILL.



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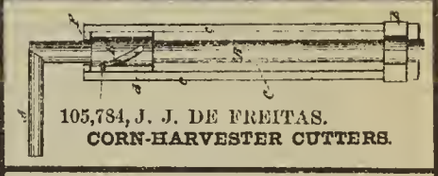
CORN-HARVESTER CUTTERS.



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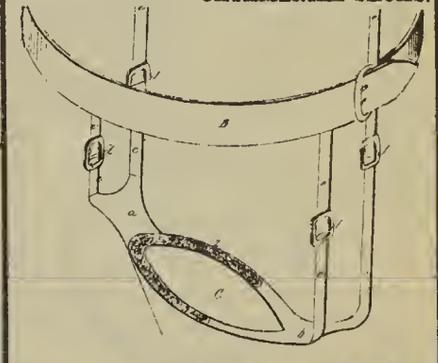
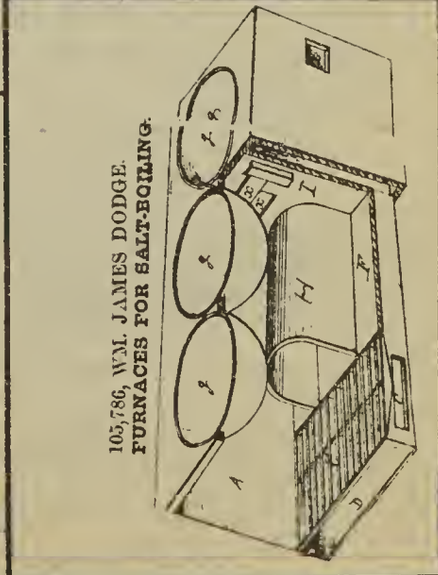
CATAMENIAL SACKS.



105,786, WM. JAMES DODGE.
FURNACES FOR SALT-BOILING.



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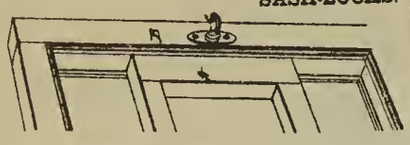
SASH-LOCKS.



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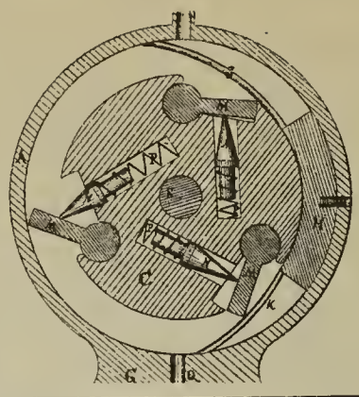
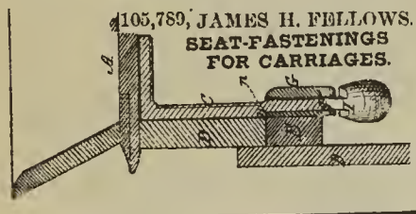
RECTIFYING WHISKY. &c.



105,789, JAMES H. FELLOWS.
SEAT-FASTENINGS FOR CARRIAGES.



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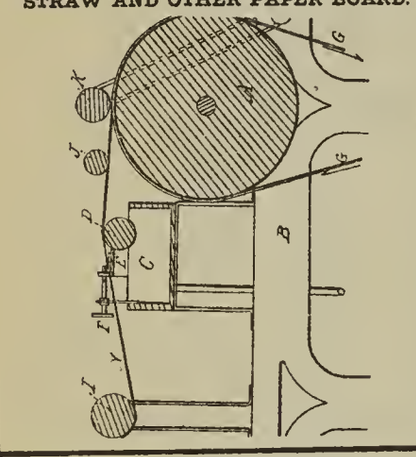
MANUFACTURE OF STRAW AND OTHER PAPER BOARD.



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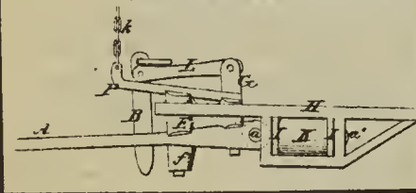
RAILWAY-CAR COUPLING



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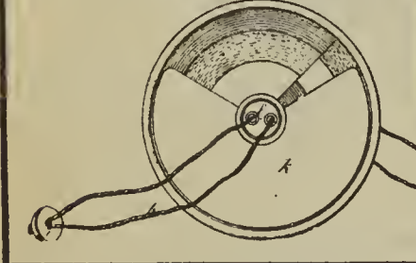
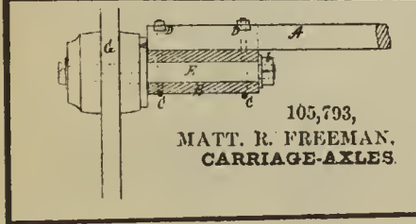
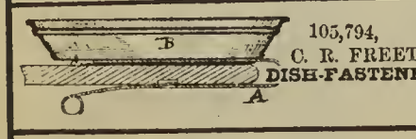
CHAMELEON WHIRLIGIG.





105,793,
MATT. R. FREEMAN.
CARRIAGE-AXLES.

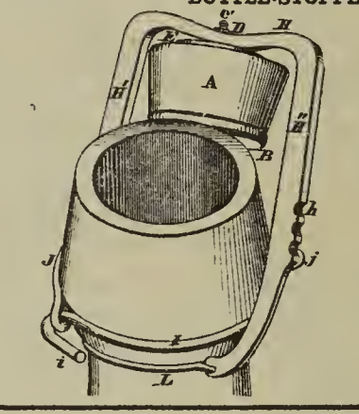


105,794,
C. R. FREET.
DISH-FASTENER.

105,795,
J. B. FULLER.
ARGAND GAS-BURNERS.

105,796, WILLARD M. FULLER.
ROTARY ENGINES.

105,797, W. H. GIBBS.
BOTTLE-STOPPERS.



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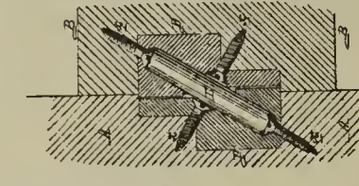
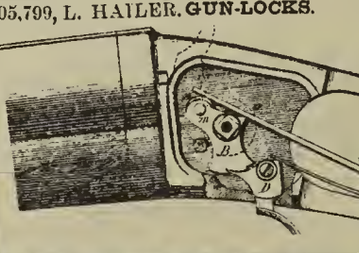
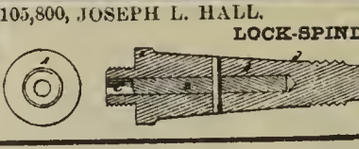
BEDSTEAD-FASTENING.



105,799, L. HAILER. GUN-LOCKS.



105,800, JOSEPH L. HALL.
LOCK-SPINDLES.



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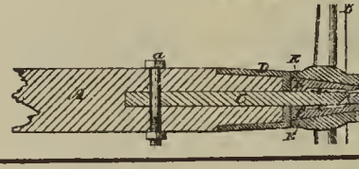
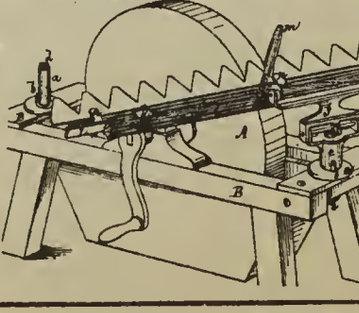
CARRIAGE-AXLES.



105,802, CHAS. C. HARDY. MACHINES FOR SHARPENING REAPER-KNIVES.



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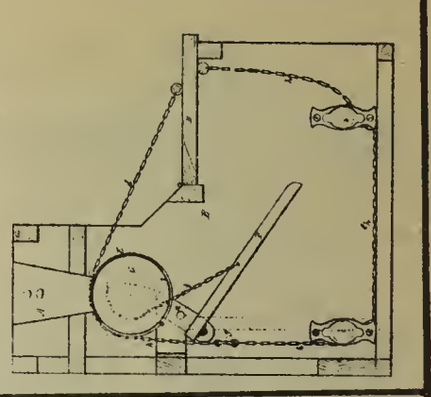
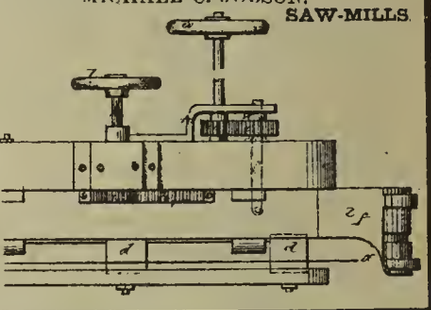
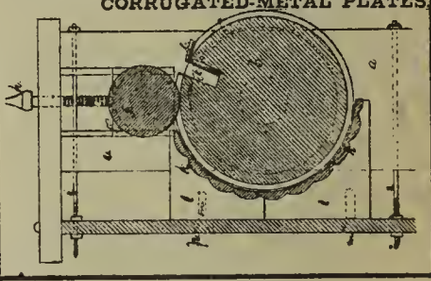
EARTH-CLOSETS.



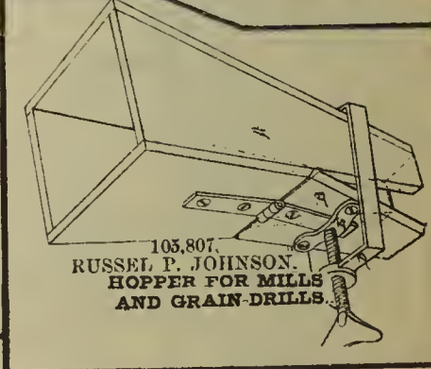
105,804, PHILIP JOBSON.
MICHAEL C. JOBSON.
SAW-MILLS.



105,805, ASA JOHNSON. MACHINES FOR BENDING CORRUGATED-METAL PLATES.

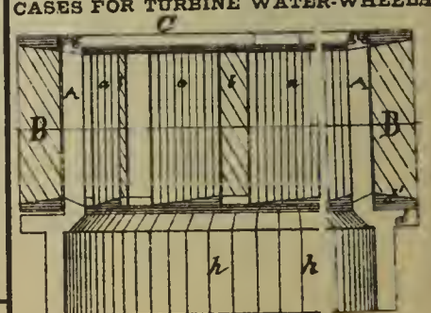


105,806, ANSON B. JOHNSON.
FIRE-PLACE.

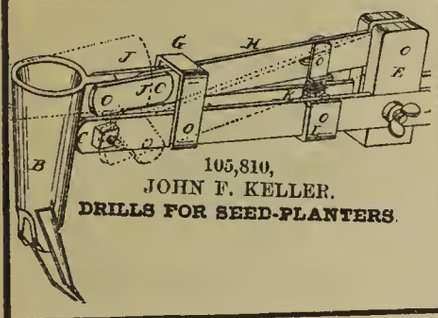


105,807,
RUSSEL P. JOHNSON.
HOPPER FOR MILLS AND GRAIN-DRILLS.

105,808, JACOB O. JOYCE.
CASES FOR TURBINE WATER-WHEELS.

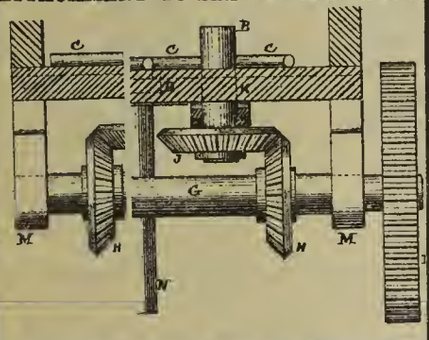


105,809, WILLIAM H. F. KEHRWIEDER.
COMPOSITION FOR "ENCAUSTIC PAINTING.

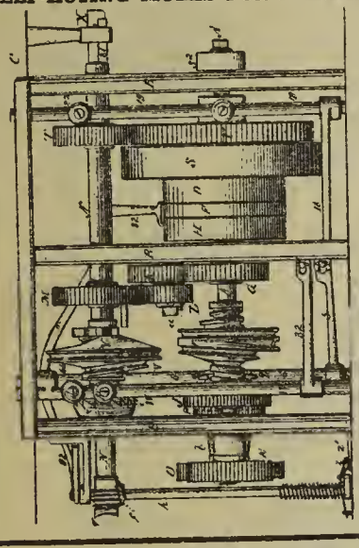


105,810,
JOHN F. KELLER.
DRILLS FOR SEED-PLANTERS.

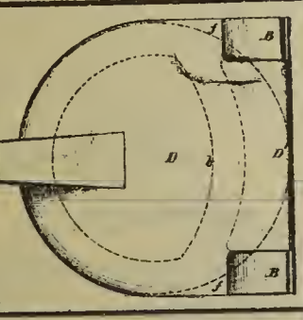
105,811, JOHN F. KELLER. **FERTILIZER-ATTACHMENT TO SEEDING-MACHINES.**



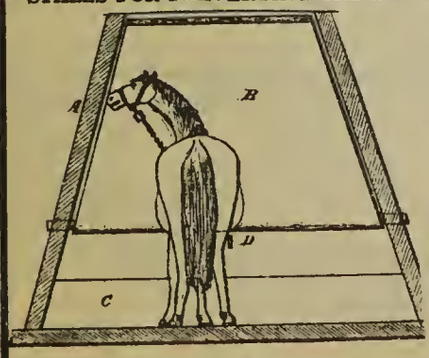
105,812, PRENTISS J. KENT.
N. W. BANCROFT.
SELF-ACTING MULES FOR SPINNING.



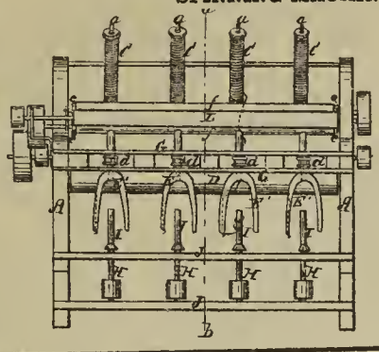
105,813,
LUCIUS J. KNOWLES.
VALVES FOR STEAM AND OTHER PUMPS.



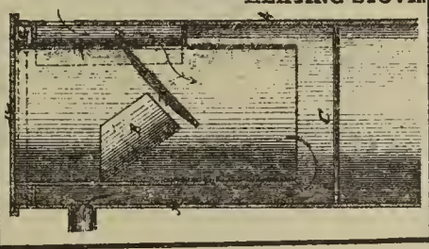
105,814. JOHN KRAUS.
STALLS FOR PREVENTING CRIBBING



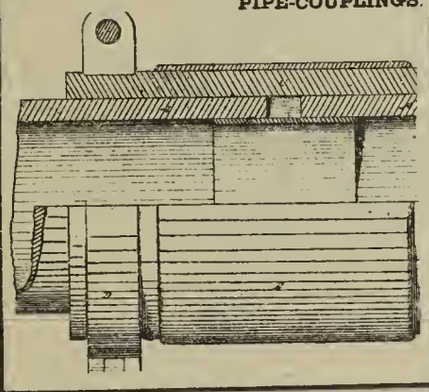
105,815, WILLIAM LA BANISTER.
LORENZO V. DAGGETT.
SPINNING-MACHINES.



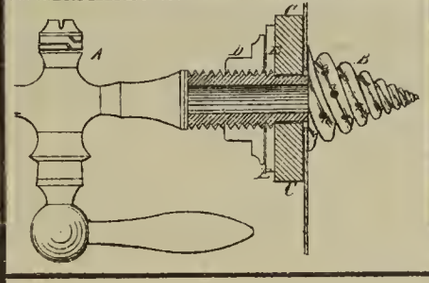
105,816. SILAS HOFFMAN LA RUE.
HEATING-STOVE.



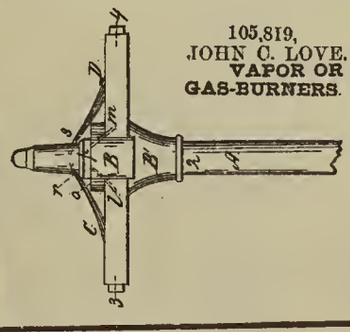
105,817. WM. A. LIGHTHALL.
PIPE-COUPLINGS.



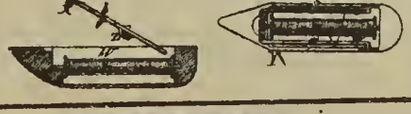
105,818. JAMES H. LORD. **FAUCETS.**

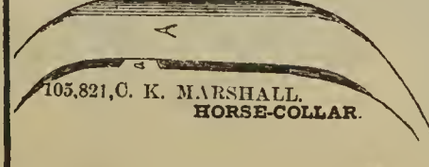


105,819,
JOHN C. LOVE.
VAPOR OR GAS-BURNERS.



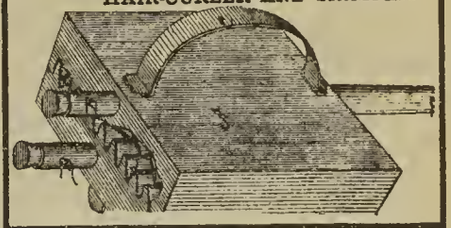
105,820, LUCIUS LYON.
SHUTTLE FOR SEWING-MACHINES.



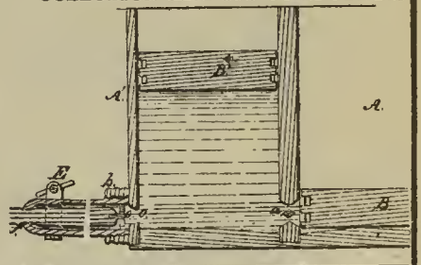


105,821, C. K. MARSHALL.
HORSE-COLLAR.

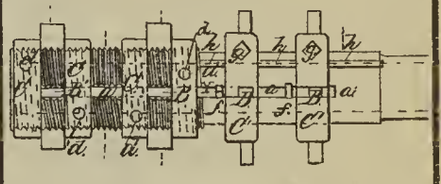
105,822, ELISHA MATTESON. **COMBINED HAIR-CURLER AND CRIMPER.**



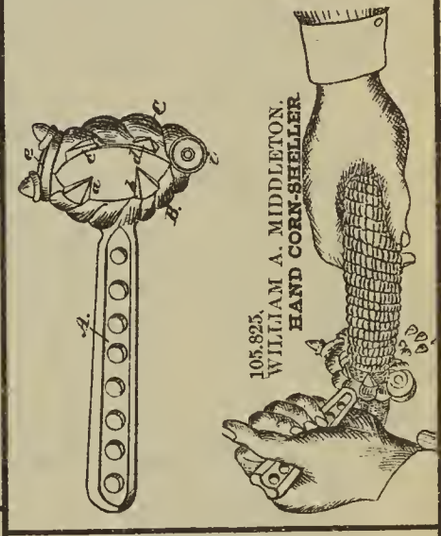
105,823, J. A. McCLELLAND.
PROCESS FOR COATING OBJECTS WITH COLLODION AND ITS COMPOUNDS.



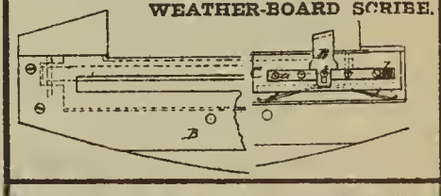
105,824 WILLIAM H. McMILLAN.
DAVID MORRIS.
TURNING DEVICES.



105,825,
WILLIAM A. MIDDLETON.
HAND CORN-SHELLER.

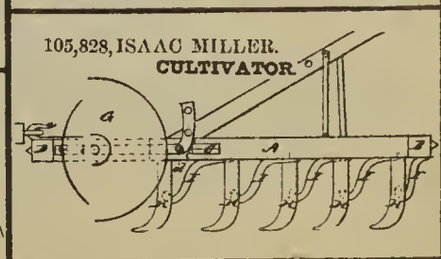


105,826, ABRAHAM MILLER.
URIAH FARIS.
WEATHER-BOARD SCRIBE.

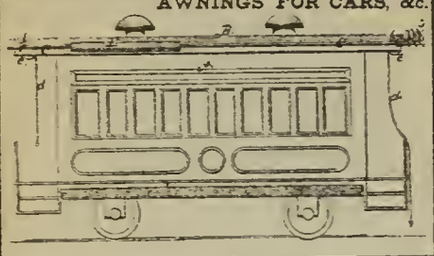


105,827, CHARLES H. MILLER. **WRENCH.**

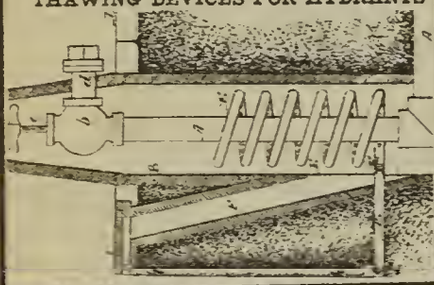
105,828, ISAAC MILLER.
CULTIVATOR.

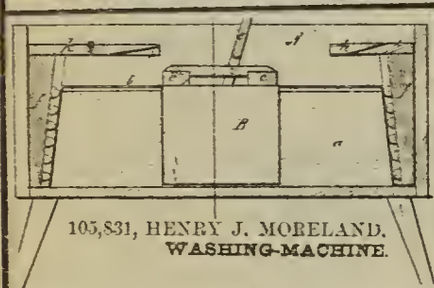


105,829. JAS. H. MONCE.
AWNINGS FOR CARS, &c.



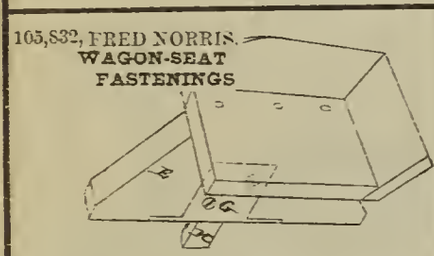
105,830, JAMES C. MOORE.
AND FIRE-PLUGS.
THAWING DEVICES FOR HYDRANTS





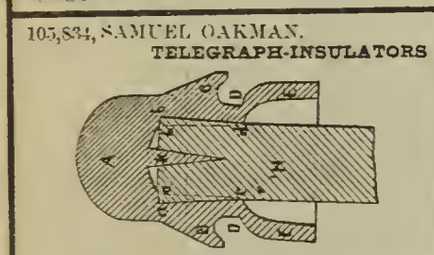
105,831, HENRY J. MORELAND.
WASHING-MACHINE.

105,832, FRED NORRIS.
WAGON-SEAT
FASTENINGS

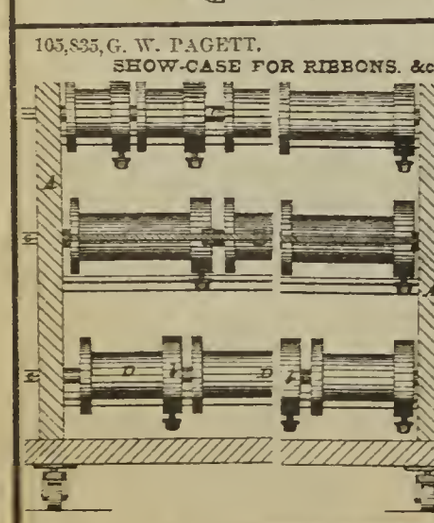


105,833, SHERMAN R. NYE.
HORSE HAY-RAKES.

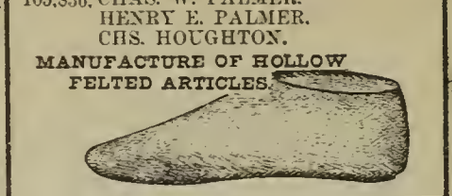
105,834, SAMUEL OAKMAN.
TELEGRAPH-INSULATORS

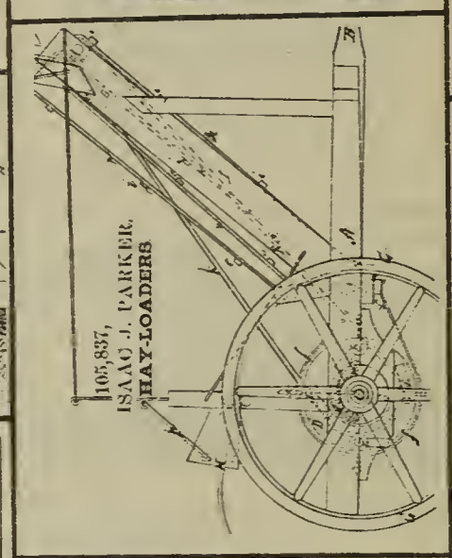


105,835, G. W. PAGETT.
SHOW-CASE FOR RIBBONS. &c.



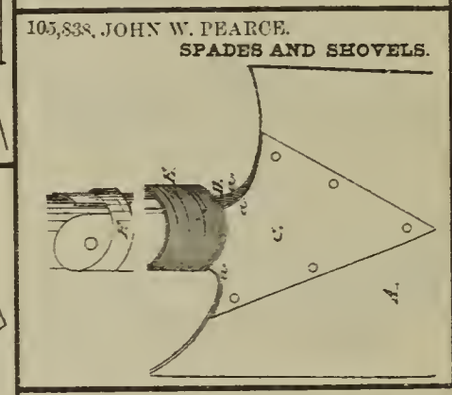
105,836, CHAS. W. PALMER.
HENRY E. PALMER.
CHS. HOUGHTON.
MANUFACTURE OF HOLLOW
FELTED ARTICLES.

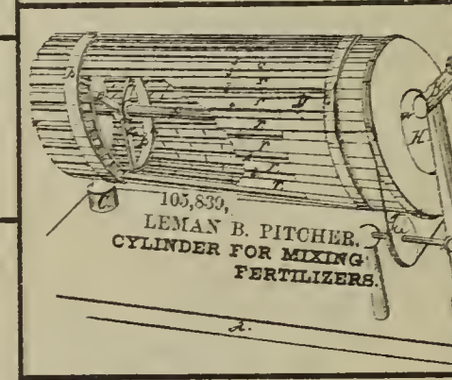




105,837,
ISAAC J. PARKER.
HAY-LOADERS

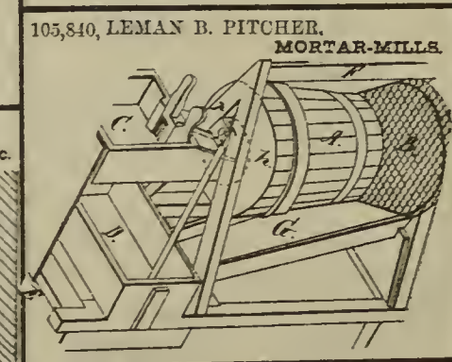
105,838, JOHN W. PEARCE.
SPADES AND SHOVELS.



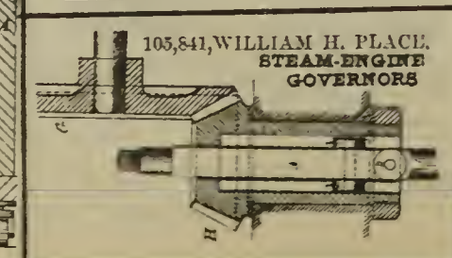


105,839,
LEMAN B. PITCHER.
CYLINDER FOR MIXING
FERTILIZERS.

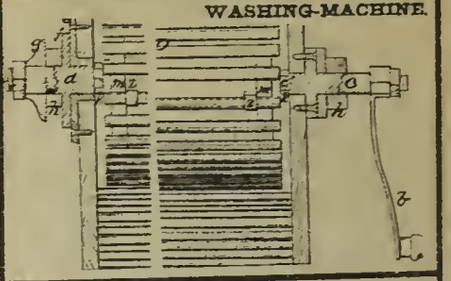
105,840, LEMAN B. PITCHER.
MORTAR-MILLS.



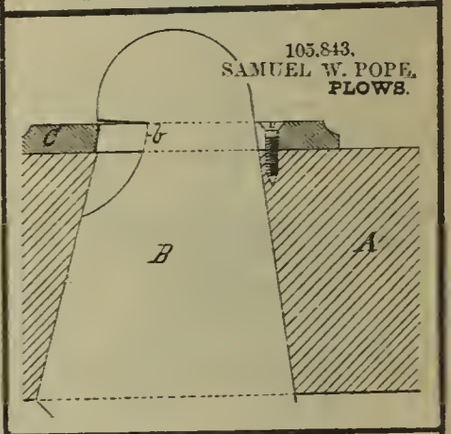
105,841, WILLIAM H. PLACE.
STEAM-ENGINE
GOVERNORS



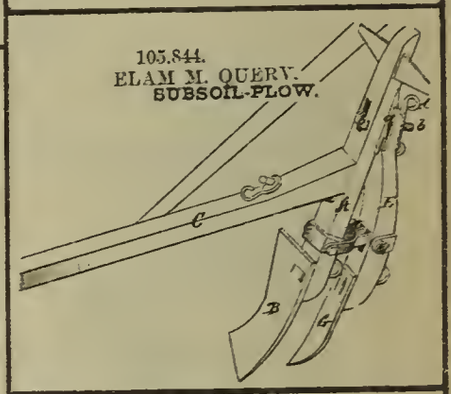
105,842, DANIEL B. POND.
WASHING-MACHINE.



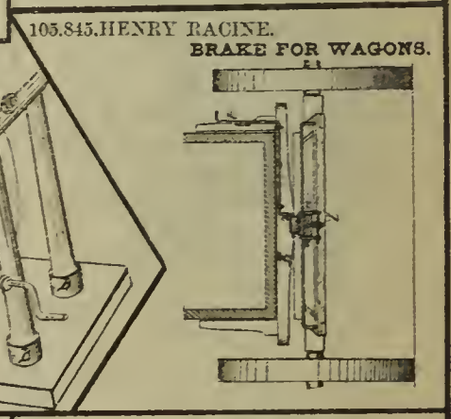
105,843.
SAMUEL W. POPE.
PLOWS.



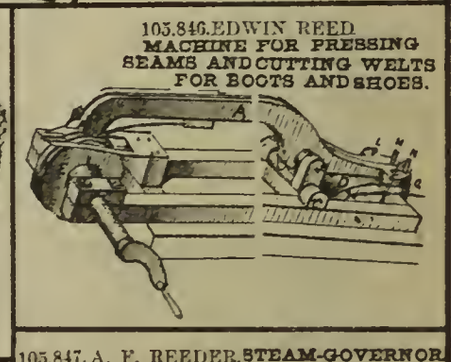
105,844.
ELAM M. QUERY.
SUBSOIL-PLOW.



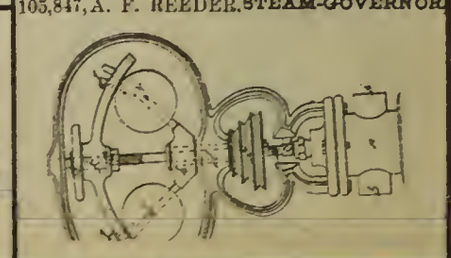
105,845. HENRY RACINE.
BRAKE FOR WAGONS.



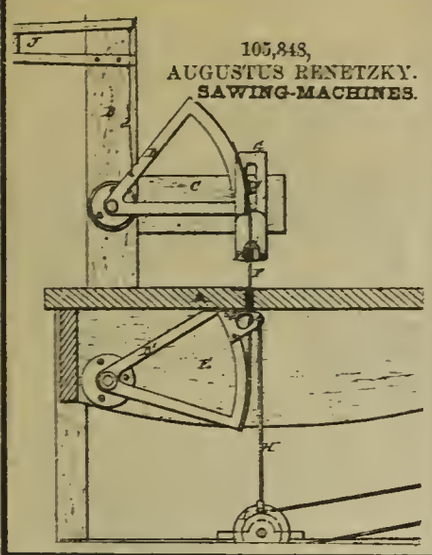
105,846. EDWIN REED.
MACHINE FOR PRESSING
SEAMS AND CUTTING WELTS
FOR BOOTS AND SHOES.



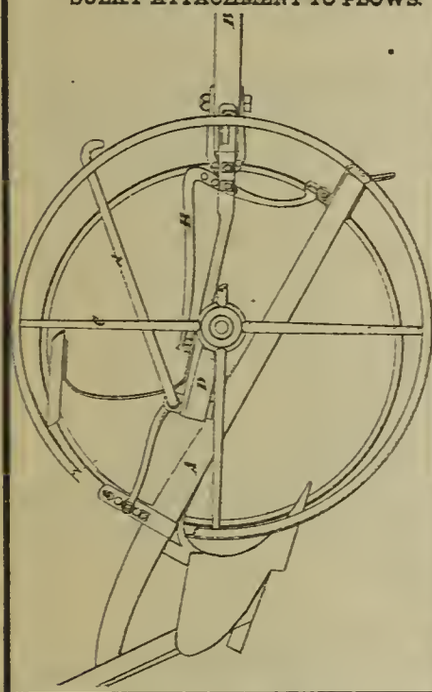
105,847, A. F. REEDER. STEAM-GOVERNOR.



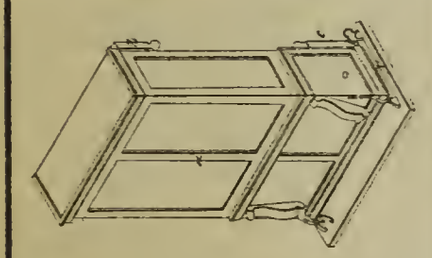
105,848, AUGUSTUS RENETZKY. SAWING-MACHINES.



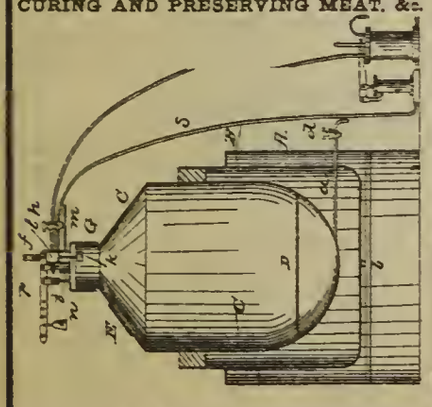
105,849, JAMES H. REYNERSON. JOHN WORREL. SULKY ATTACHMENT TO PLOWS.



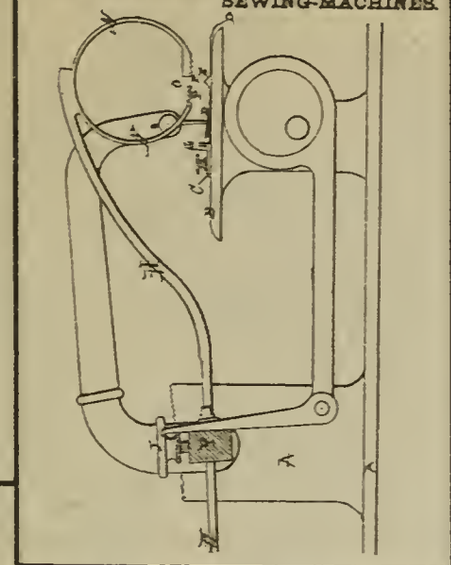
105,850, ANDREW J. ROBERTS. CABINET-BEDSTEAD.



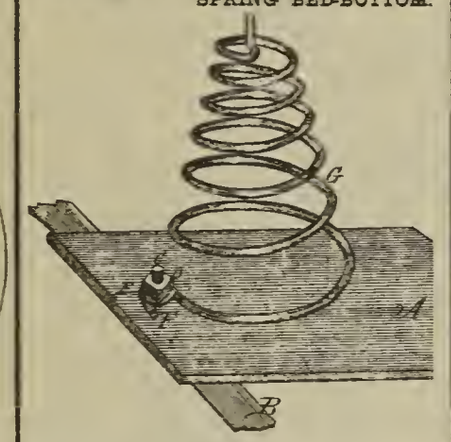
105,851, ADOLPHE ROCK. CURING AND PRESERVING MEAT, &c.



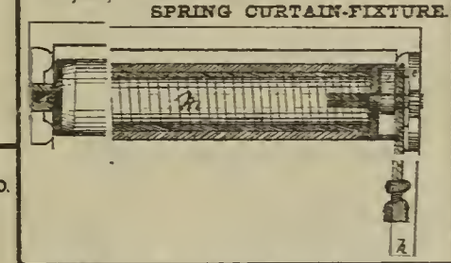
105,852, J. B. SAFFORD. TUCK-CREASING ATTACHMENT FOR SEWING-MACHINES.



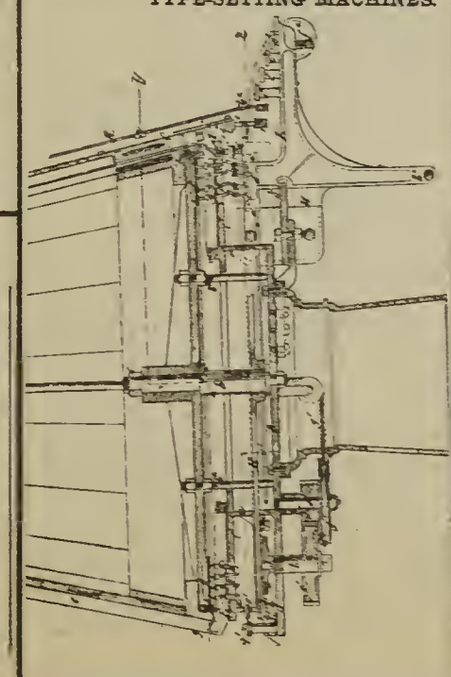
105,853, M. V. B. SHEPARD. SPRING BED-BOTTOM.

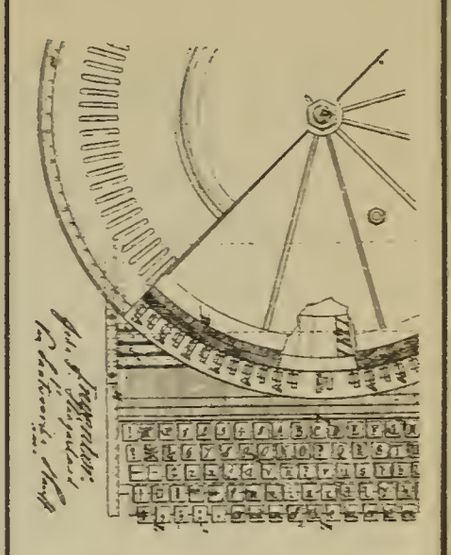


105,854, JOHN SHOREY. SPRING CURTAIN-FIXTURE.

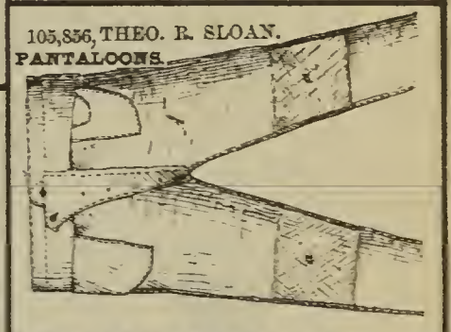


105,855, JOHN T. SLINGERLAND. TYPE-SETTING MACHINES.





105,856, THEO. R. SLOAN. PANTALOONS.



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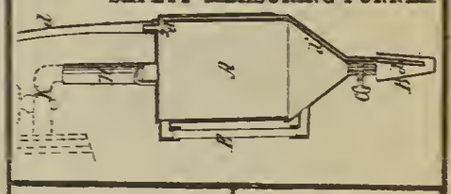

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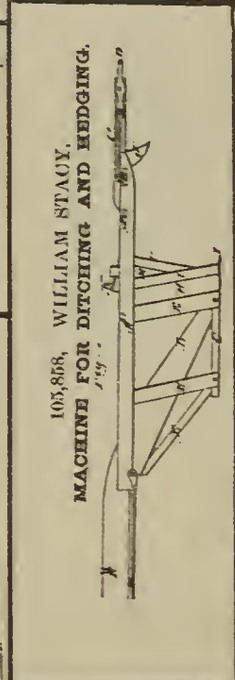

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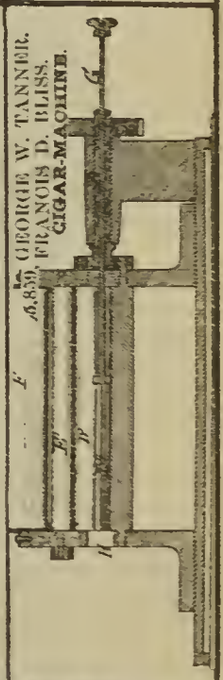
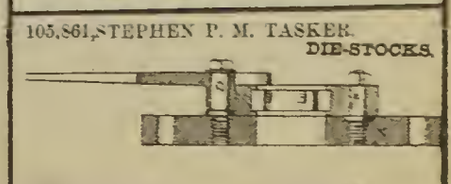


105,860, STEPHEN P. M. TASKER. CHUCKS.

105,861, STEPHEN P. M. TASKER. DIE-STOCKS.



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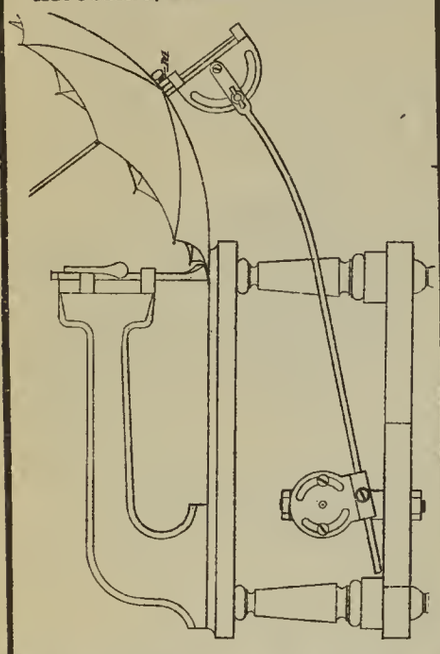

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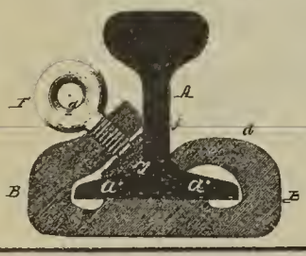

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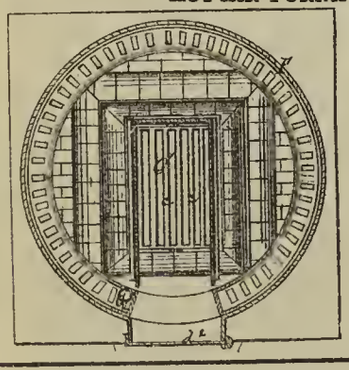

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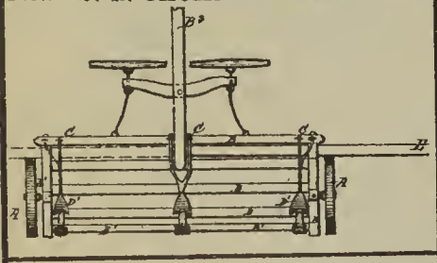

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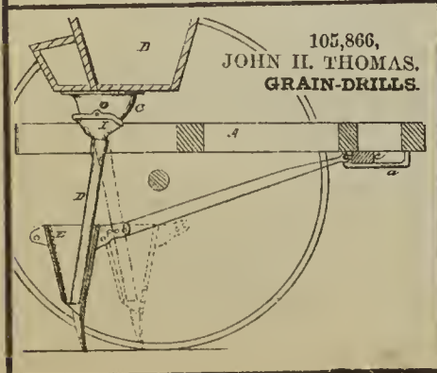

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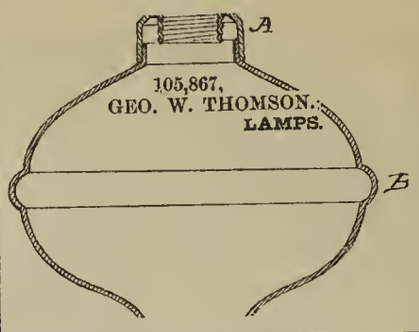

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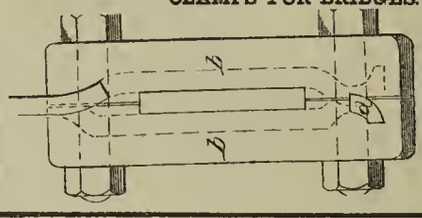
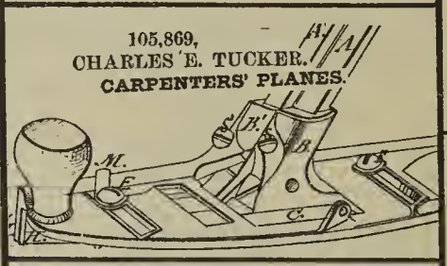


105,869, CHARLES E. TUCKER. CARPENTERS' PLANES.



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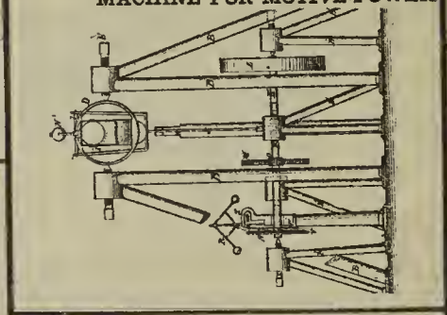

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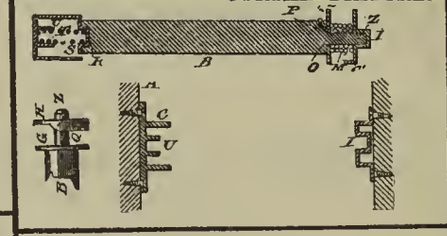

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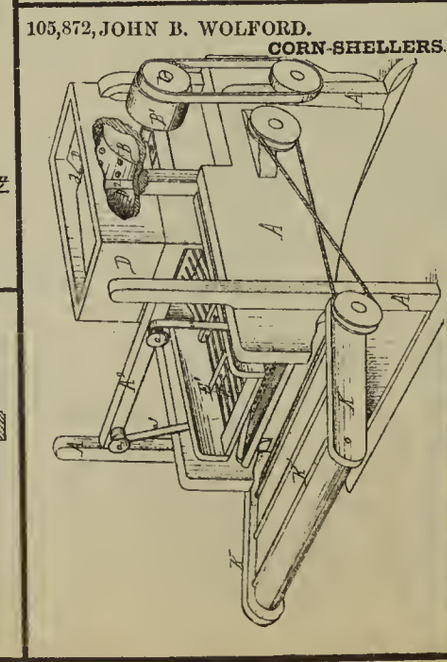

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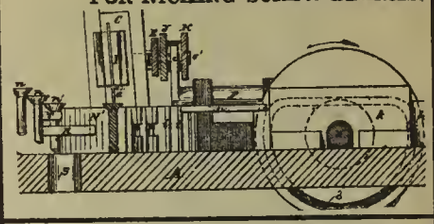
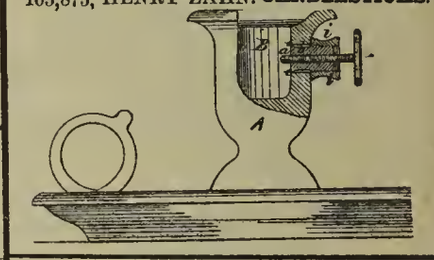
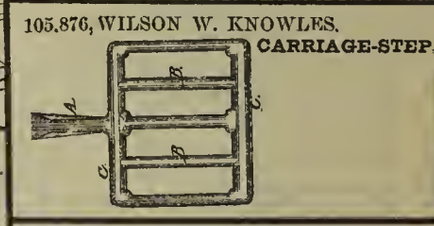


105,874, B. F. WOODSIDE. PERCUSSION CAPS.

105,875, HENRY ZAHN. CANDLESTICKS.



105,876, WILSON W. KNOWLES. CARRIAGE-STEP.



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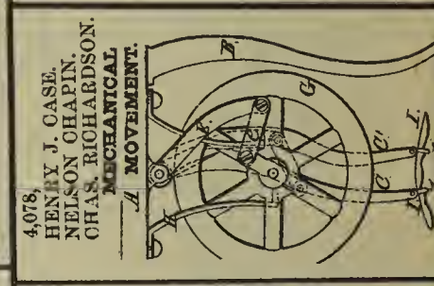

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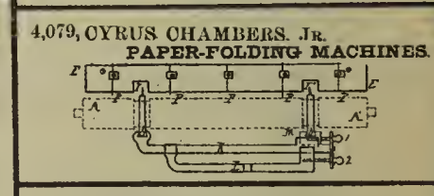
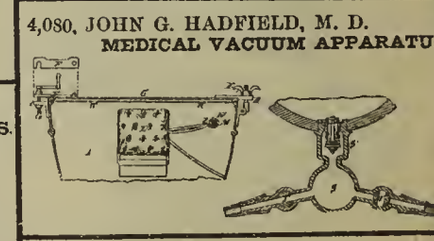
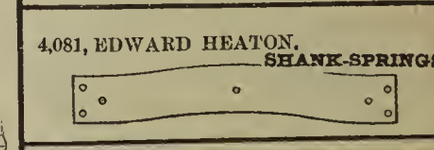


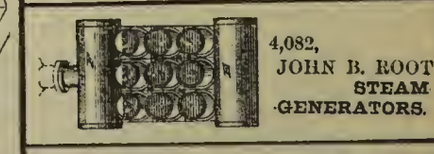
4,080, JOHN G. HADFIELD, M. D. MEDICAL VACUUM APPARATUS.



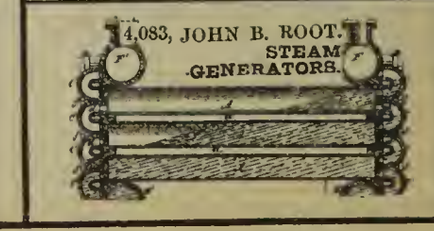
4,081, EDWARD HEATON. SHANK-SPRINGS.



4,082, JOHN B. ROOT. STEAM GENERATORS.



4,083, JOHN B. ROOT. STEAM GENERATORS.



ILLUSTRATIONS OF PATENTS

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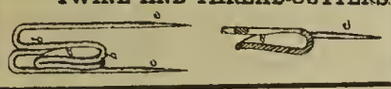
AUGUST 2, 1870.

105,877, ALFRED ADAMS. PAPER BAGS.

105,878, SAMUEL W. ADAMS. TWINE AND THREAD-CUTTERS.



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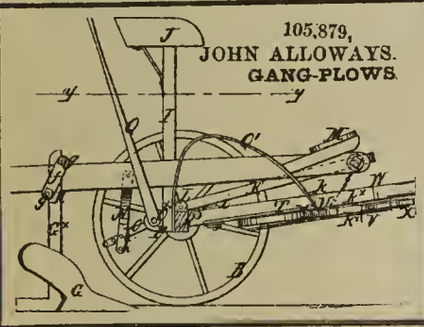

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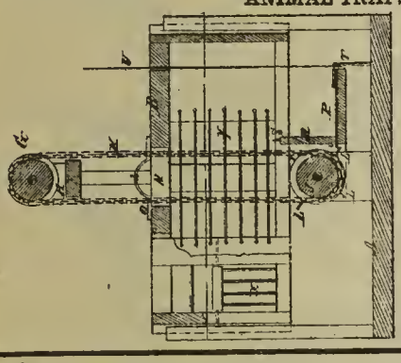

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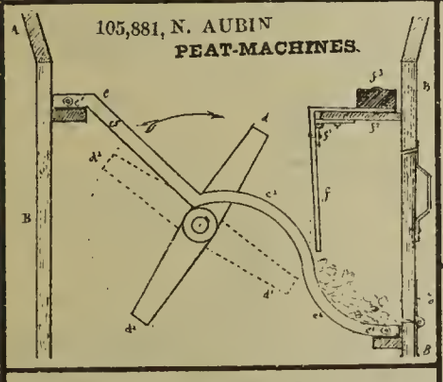

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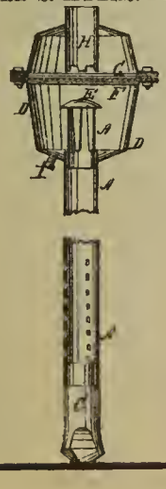
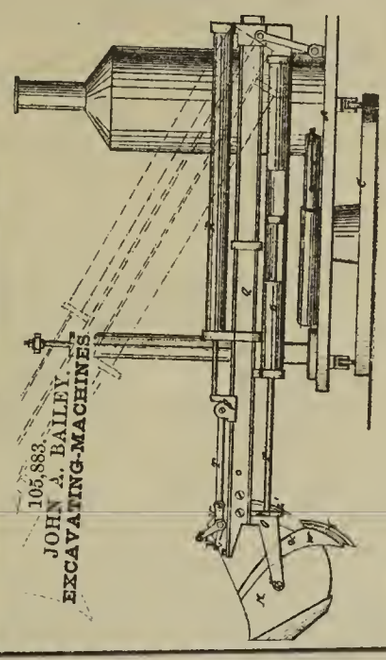
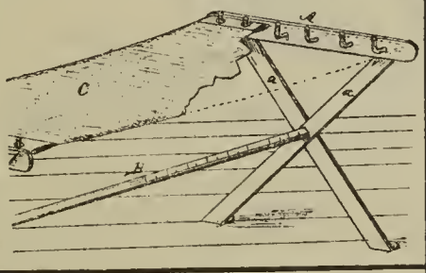




105,883, JOHN A. BAILEY. EXCAVATING-MACHINES.

105,884, HAYDN M. BAKER. PREPARATION OF PAPER STOCK.

105,885, VIRGINIA L. BAKER BEDSTEADS AND COTS.



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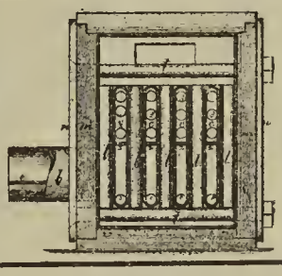
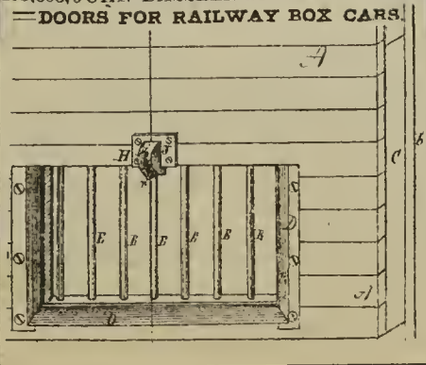


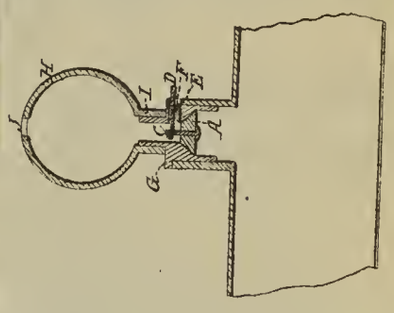
105,887. GREENLEAF BASSETT. MOLDS FOR CASTING MACKEREL-JIGS.

105,888, JOHN BASSLER SLIDING DOORS FOR RAILWAY BOX CARS.

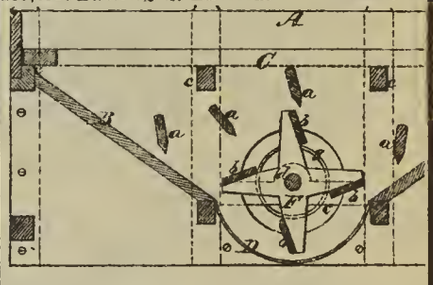


105,889. W. A. BATTERSBY. MANUFACTURE OF ARTIFICIAL STONE.

105,890, JOSEPH B. BENNETT. BALL-VALVES FOR INJECTING AIR.



105,891. LUCIUS S. BLAKE. WOOL-DRIER.



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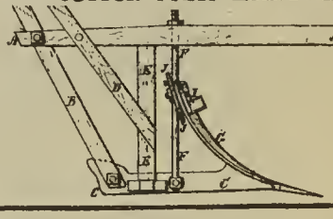
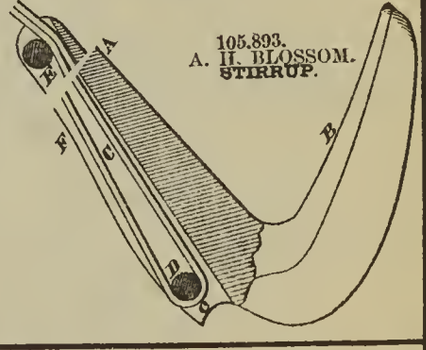
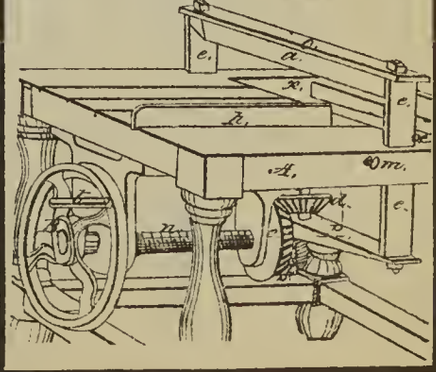


105,893. A. H. BLOSSOM. STIRRUP.



105,894, JOHN BOLE. PAPER-CUTTING MACHINES.



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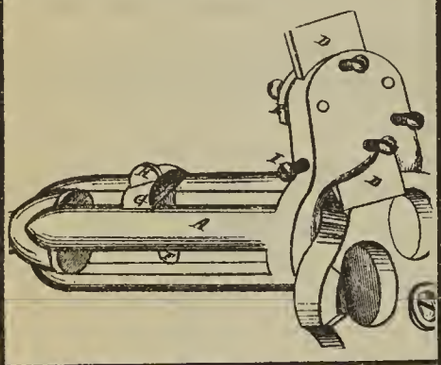
HEAD-MEASURE FOR HATTERS.

105,896, CHARLES S. BONNEY.
HOLLOW AUGER.



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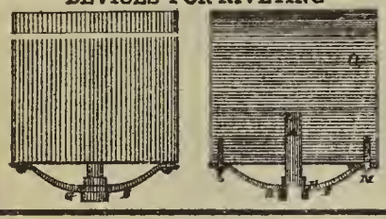
DEVICES FOR RIVETING



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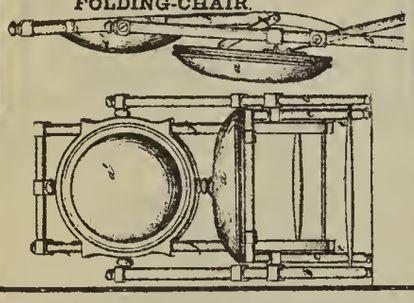
FOLDING-CHAIR.



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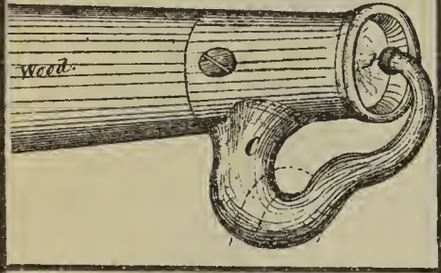
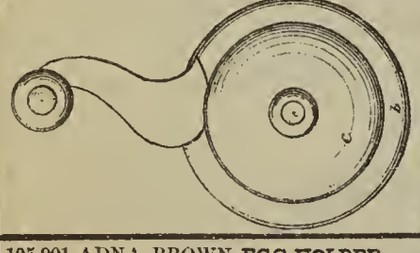
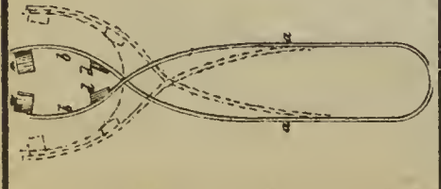
BENJAMIN F. UPSON.
WHIFFLETREE TRACE-HOOK.



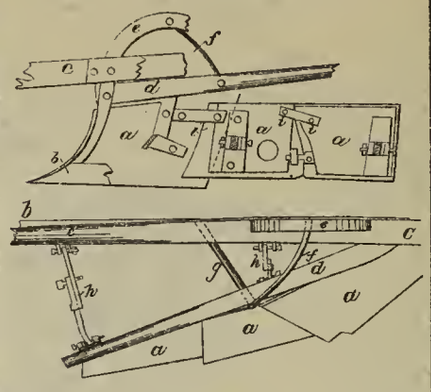
105,900, E. W. BRETTELL.
ATTACHING CAPS
TO BASES OF BELL-LEVERS.



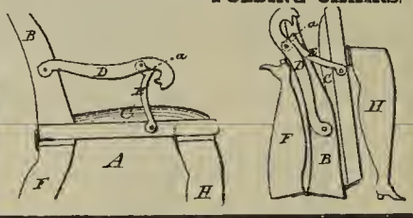
105,901, ADNA BROWN. EGG-HOLDER.



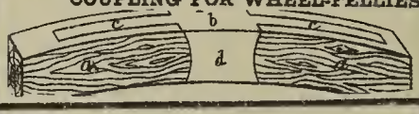
105,902. SAMUEL N. CALDWELL.
GRADING AND DITCHING-PLOWS.

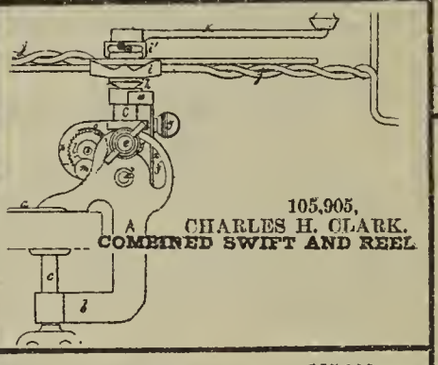


105,903. WALTER E. CAMERON.
FOLDING CHAIRS.



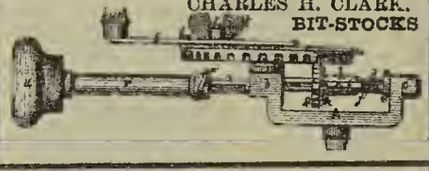
105,904. CHANDLER CHENEY.
COUPLING FOR WHEEL-FELLIES.



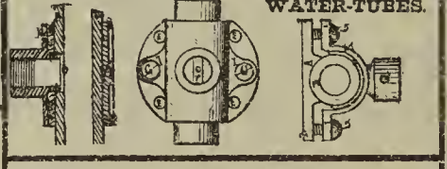


105,905,
CHARLES H. CLARK.
COMBINED SWIFT AND REEL.

105,906,
CHARLES H. CLARK.
BIT-STOCKS

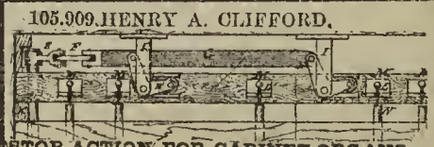


105,907. JOSIAH S. CLARK.
BRANCH ATTACHMENT FOR
WATER-TUBES.

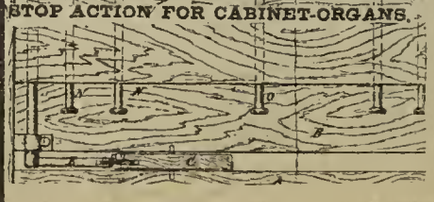


105,908. WM. E. CLARKE.
JOINT FOR TONGS, &c.

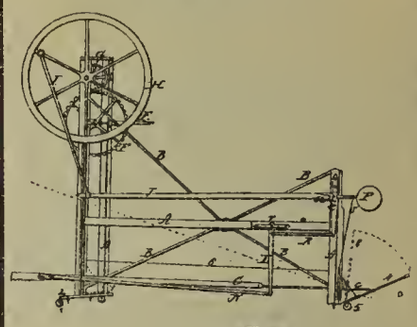
105,909. HENRY A. CLIFFORD.

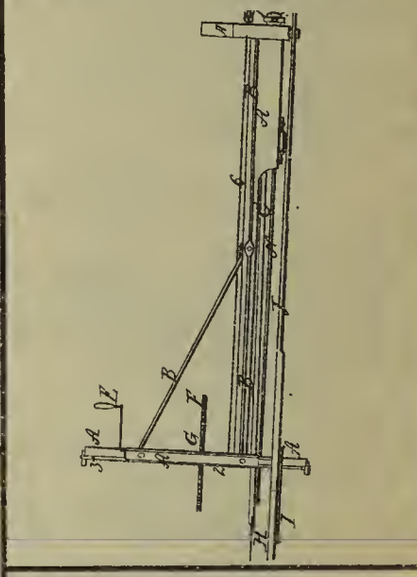


STOP ACTION FOR CABINET-ORGANS.

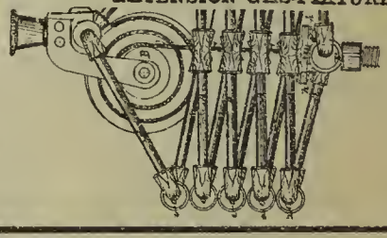


105,910. WM. M. COCHRAN.
SAWING-MACHINE.



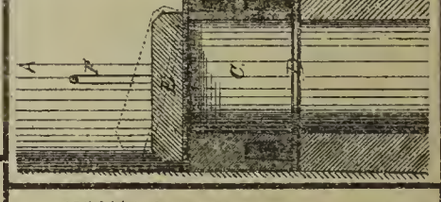


105,911. HENRY COESTER.
EXTENSION GAS-FIXTURES.



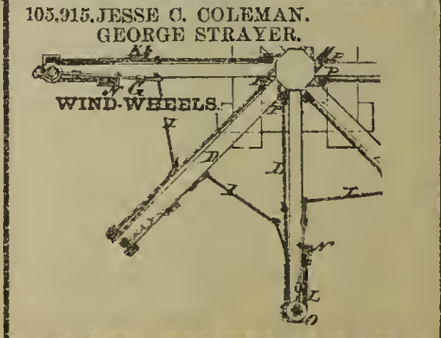
105,912. NATHAN T. COFFIN.
MACHINE FOR SECURING
SHEET-METAL LINING IN PUMP-STOCKS

105,913. NATHAN T. COFFIN.
PUMP-VALVES



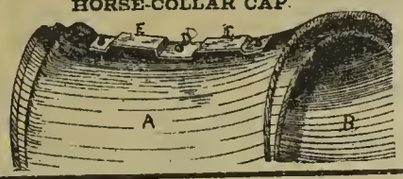
105,914. MOSES M. COHEN. CHIGNONS.

105,915. JESSE C. COLEMAN.
GEORGE STRAYER.
WIND-WHEELS.

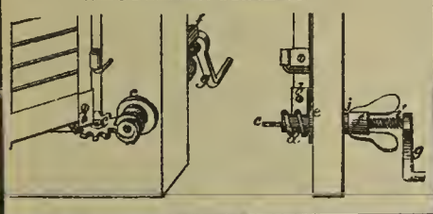


105,916, JOHN CONZELMAN.
COUGH-SIRUP.

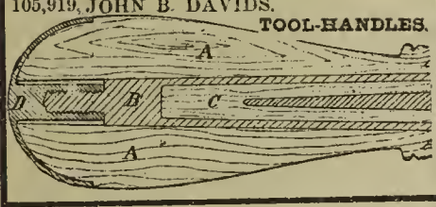
105,917, DEXTER CURTIS.
HORSE-COLLAR CAP.



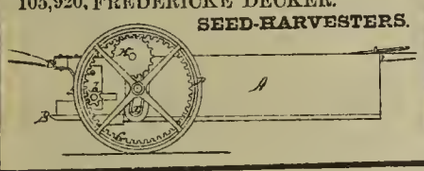
105,918, GEORGE L. DANFORTH.
SHUTTER-WORKERS.



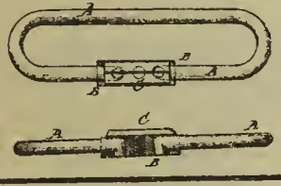
105,919, JOHN B. DAVIDS.
TOOL-HANDLES.



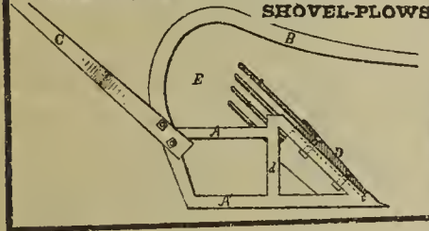
105,920, FREDERICKE DECKER.
SEED-HARVESTERS.



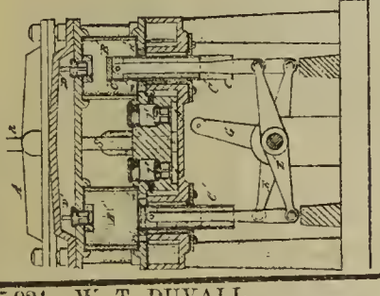
105,921, A. J. DEXTER
ADJUSTABLE LINK.



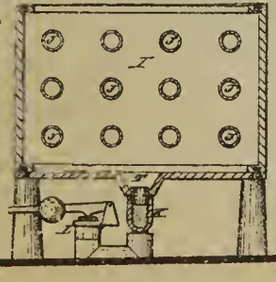
105,922, JAMES M. DICK.
FRAMES FOR POTATO-DIGGERS AND SHOVEL-PLOWS.

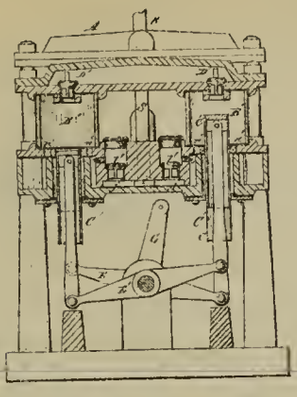


105,923, JULES DUVAL.
PROCESS OF SEPARATING FIBERS FROM COTTON-SEED.

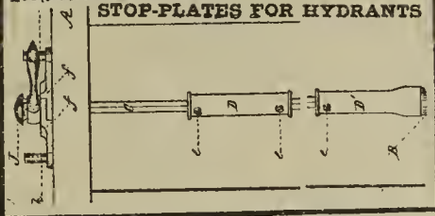


105,924. W. T. DUVALL
MACHINERY FOR THE MANUFACTURE OF ICE.

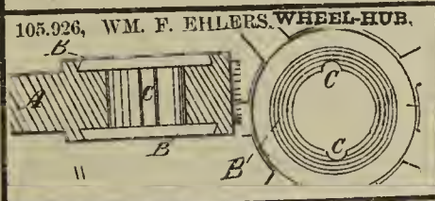




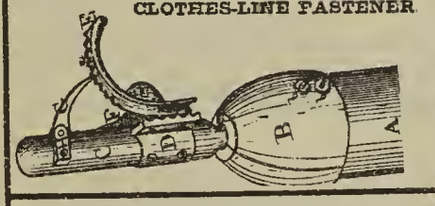
105,925, JAMES C. EASTMAN
STOP-PLATES FOR HYDRANTS



105,926, WM. F. EHLERS. WHEEL-HUB.



105,927. E. K. ELLIOTT.
URI J. BAXTER.
CLOTHES-LINE FASTENER.



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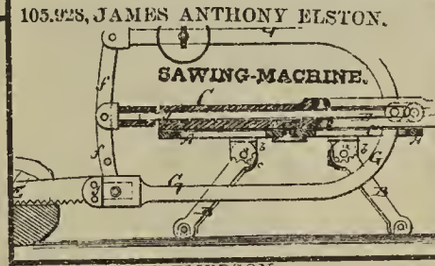
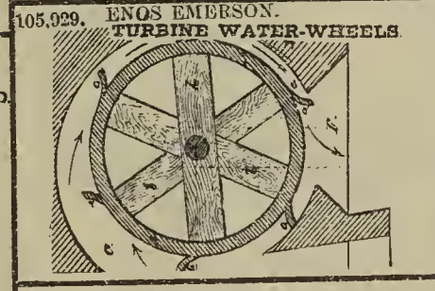
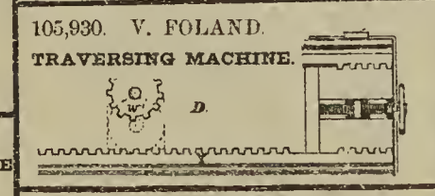
SAWING-MACHINE.



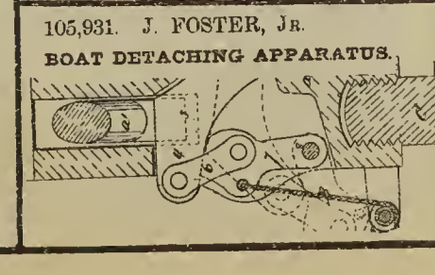
105,929. ENOS EMERSON.
TURBINE WATER-WHEELS.



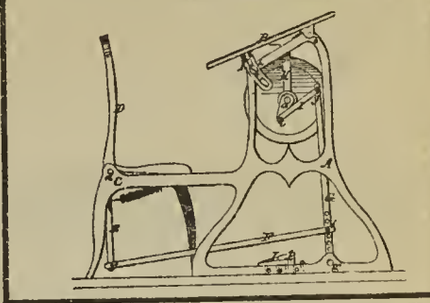
105,930. V. FOLAND.
TRAVERSING MACHINE.



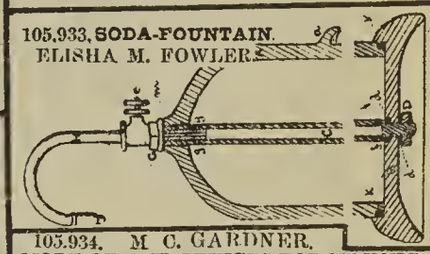
105,931. J. FOSTER, JR.
BOAT DETACHING APPARATUS.



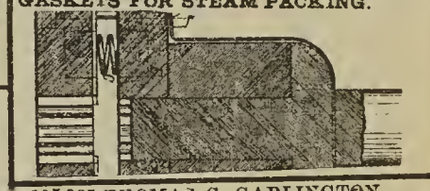
105,932. S. CONANT FOSTER
MODE OF OPERATING SEWING AND OTHER MACHINES.



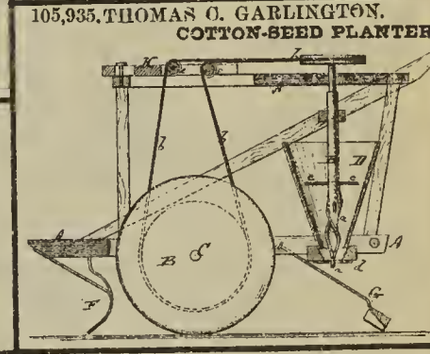
105,933, SODA-FOUNTAIN.
ELISHA M. FOWLER.



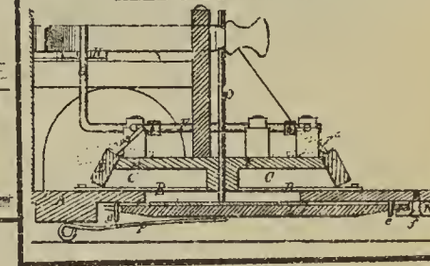
105,934. M. C. GARDNER.
MODE OF AND DEVICES FOR MAKING GASKETS FOR STEAM PACKING.



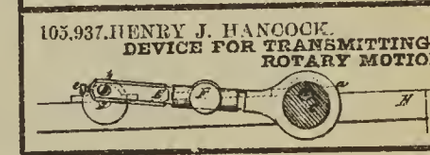
105,935, THOMAS C. GARLINGTON.
COTTON-SEED PLANTER.



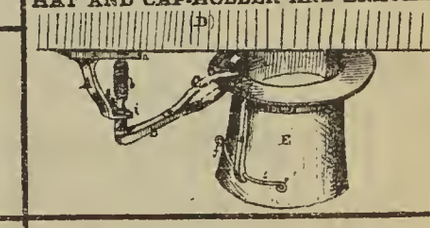
105,936, WILLIAM H. GERRISH.
REED MUSICAL INSTRUMENTS.



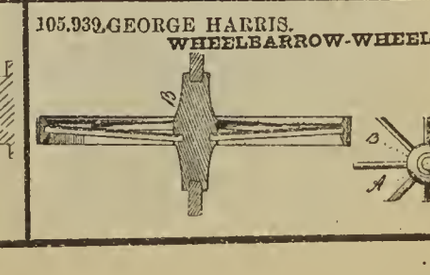
105,937, HENRY J. HANCOCK.
DEVICE FOR TRANSMITTING ROTARY MOTION.



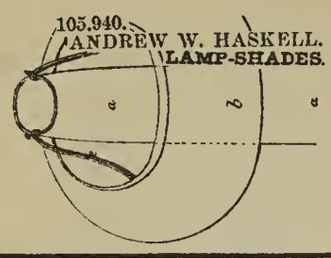
105,938, J. R. HARTMANN.
MARTAN KAIS.
HAT AND CAP-HOLDER AND BRACKET.



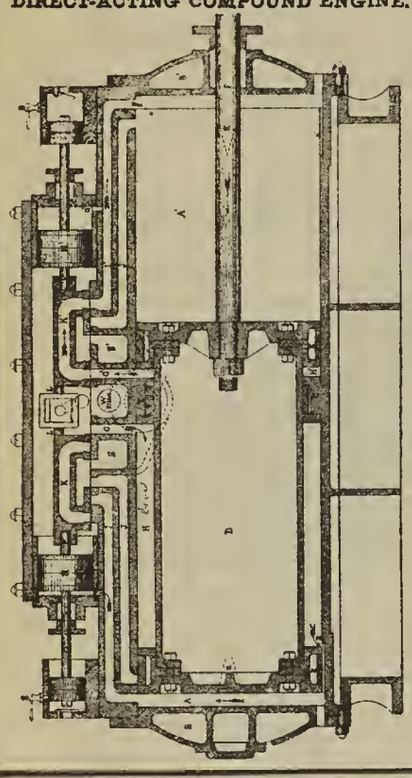
105,939, GEORGE HARRIS.
WHEELBARROW-WHEELS.



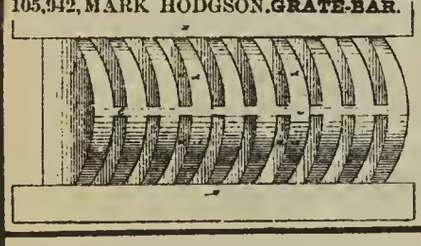
105,940. ANDREW W. HASKELL. LAMP-SHADES.



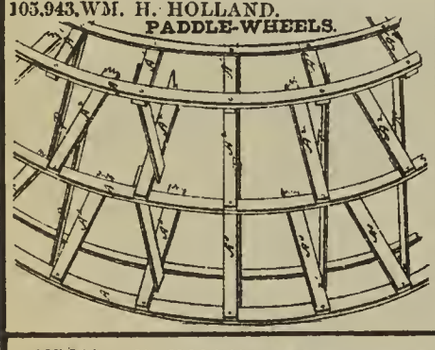
105,941. WILLIAM M. HENDERSON. DIRECT-ACTING COMPOUND ENGINE.



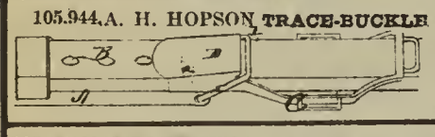
105,942. MARK HODGSON. GRATE-BAR.



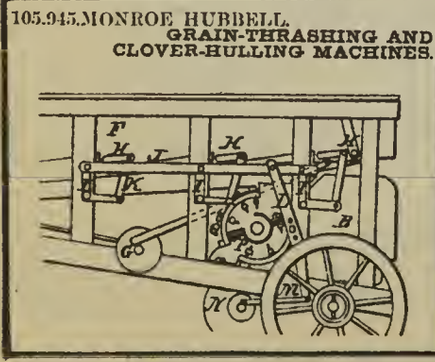
105,943. WM. H. HOLLAND. PADDLE-WHEELS.



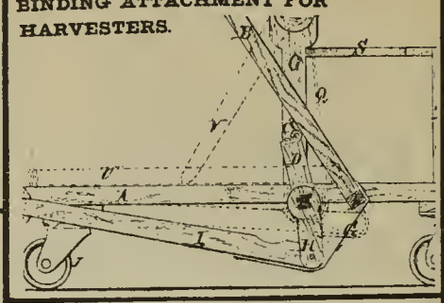
105,944. A. H. HOPSON. TRACE-BUCKLE.



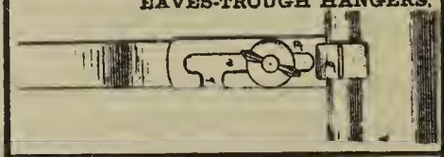
105,945. MONROE HUBBELL. GRAIN-THRASHING AND CLOVER-HULLING MACHINES.



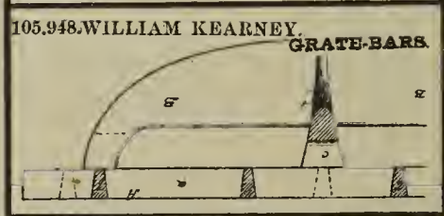
105,946. F. B. ISETT. BINDING ATTACHMENT FOR HARVESTERS.



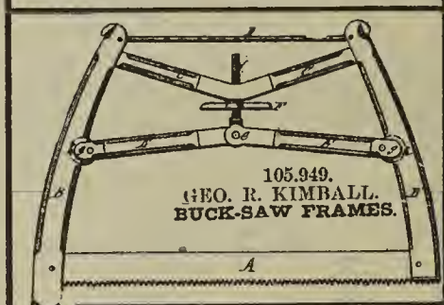
105,947. JACOB J. KAUFFMAN. EAVES-TROUGH HANGERS.



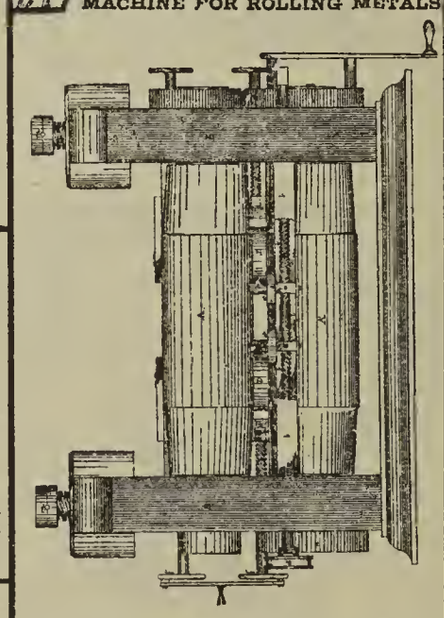
105,948. WILLIAM KEARNEY. GRATE-BARS.



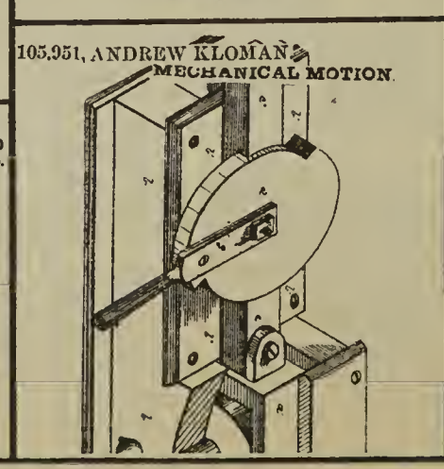
105,949. GEO. R. KIMBALL. BUCK-SAW FRAMES.



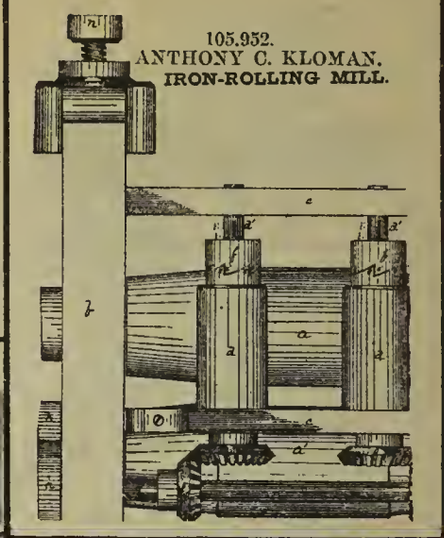
105,950. ANDREW KLOMAN. MACHINE FOR ROLLING METALS.



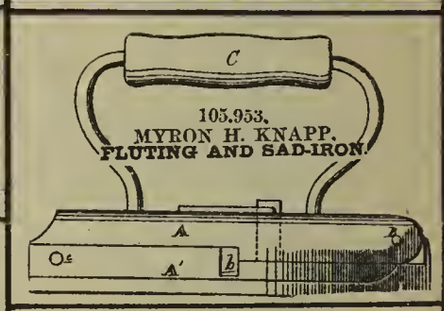
105,951. ANDREW KLOMAN. MECHANICAL MOTION.



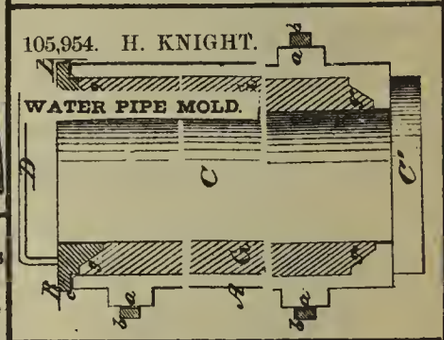
105,952. ANTHONY C. KLOMAN. IRON-ROLLING MILL.



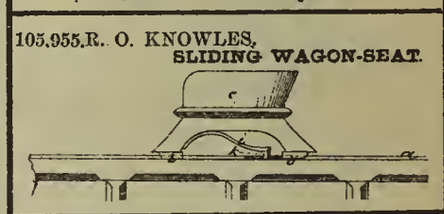
105,953. MYRON H. KNAPP. FLUTING AND SAD-IRON.



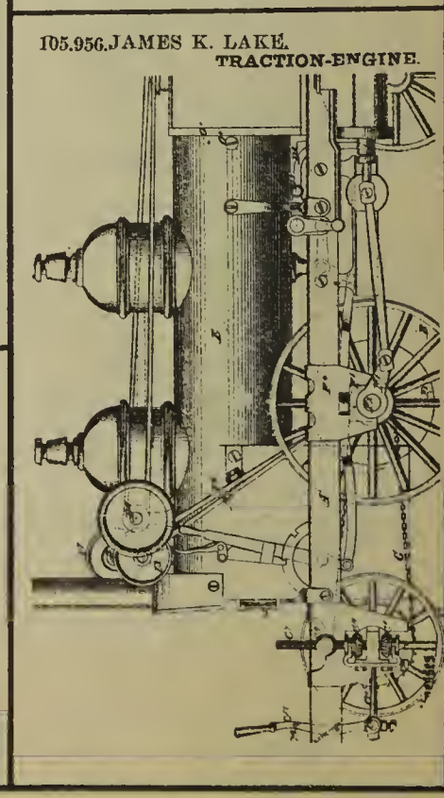
105,954. H. KNIGHT. WATER PIPE MOLD.



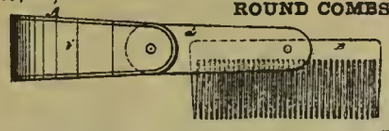
105,955. R. O. KNOWLES. SLIDING WAGON-SEAT.



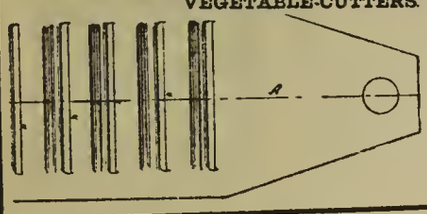
105,956. JAMES K. LAKE. TRACTION-ENGINE.



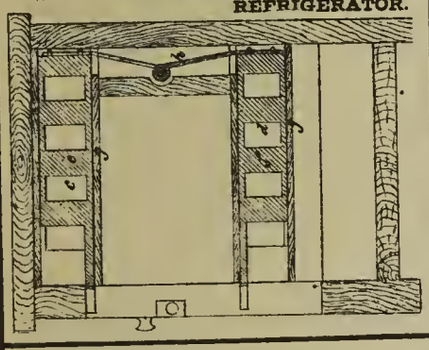
105,957, GEO. T. LINCOLN.
ROUND COMBS.



105,958, JOHN LUSHER.
VEGETABLE-CUTTERS.

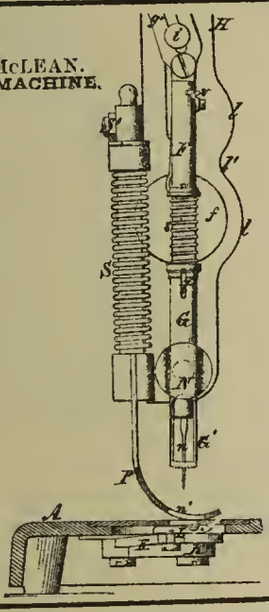


105,959, WILLIAM B. MASON.
REFRIGERATOR.



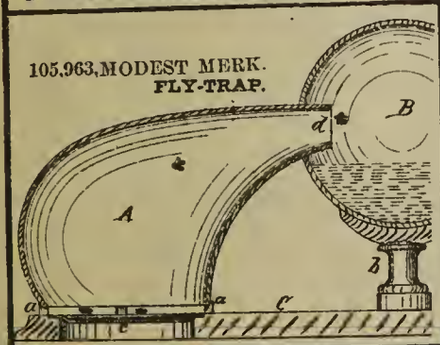
105,960. WILLIAM A. MAURAN.
MANUFACTURE OF CARPET-LINING.

105,961.
JNO. N. McLEAN.
SEWING-MACHINE.

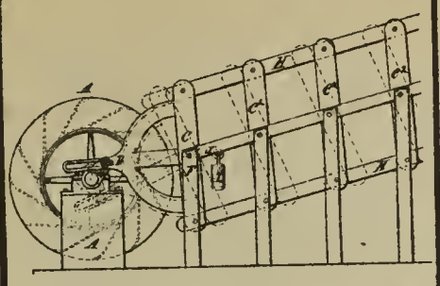


105,962 FENTON A. MEREDITH.
RAILWAY RAILS.

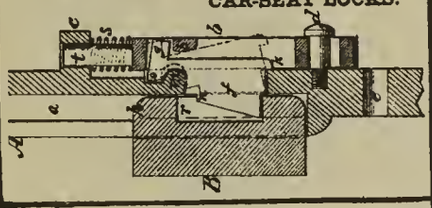
105,963, MODEST MERK.
FLY-TRAP.



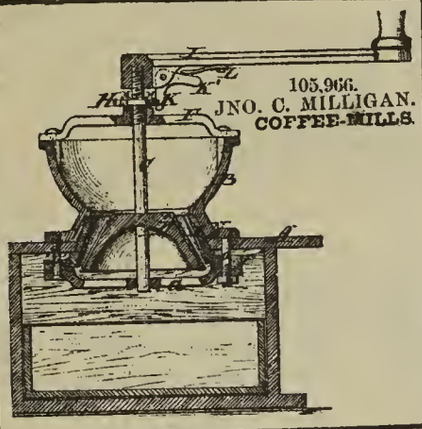
105,964, CHARLES H. MILLER
MEANS FOR COMMUNICATING MOTION TO MACHINERY

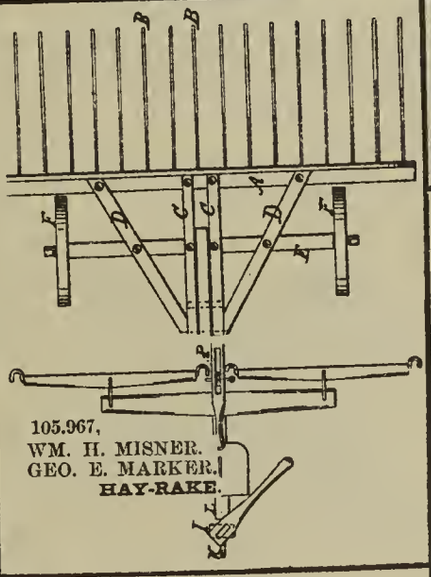


105,965. EZRA MILLER.
CAR-SEAT LOCKS.



105,966.
JNO. C. MILLIGAN.
COFFEE-MILLS.

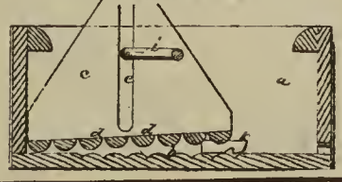


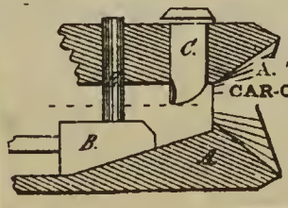


105,967,
WM. H. MISNER.
GEO. E. MARKER.
HAY-RAKE.

105,968, CONRAD F. MOLL.
MANUFACTURE OF PURE CARBONATE OF POTASH.

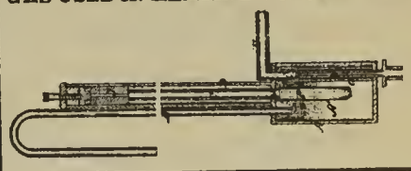
105,969, JEREMIAH A. MORELOCK.
WASHING-MACHINE.



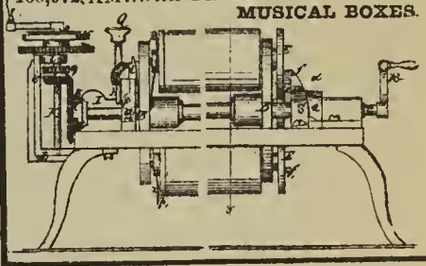


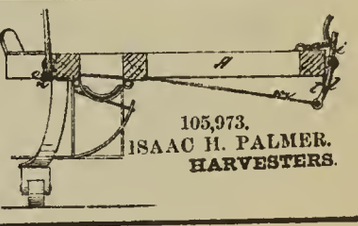
105,970,
A. T. NORGAN.
CAR-COUPLINGS.

105,971 JAMES M. OSGOOD.
APPARATUS FOR AUTOMATICALLY REGULATING THE FLOW OF GAS USED IN HEATING VULCANIZERS.



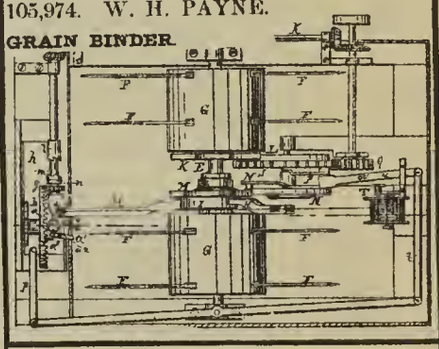
105,972, AMÉDÉE PAILLARD.
MUSICAL BOXES.



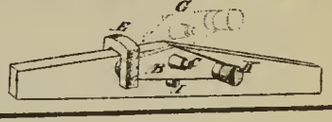


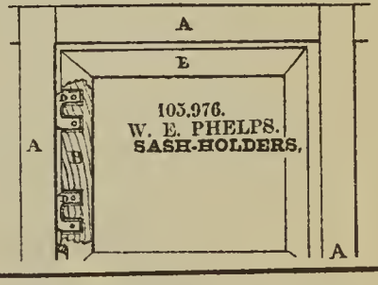
105,973.
ISAAC H. PALMER.
HARVESTERS.

105,974. W. H. PAYNE.
GRAIN BINDER.



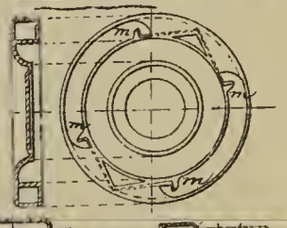
105,975. FREDERIC M. PERRY.
CUT-OFF FOR RELAYS AND OTHER ELECTRO-MAGNETIC INSTRUMENTS.

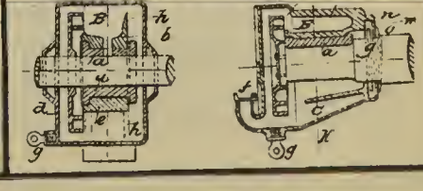




105,976.
W. E. PHELPS.
SASH-HOLDERS.

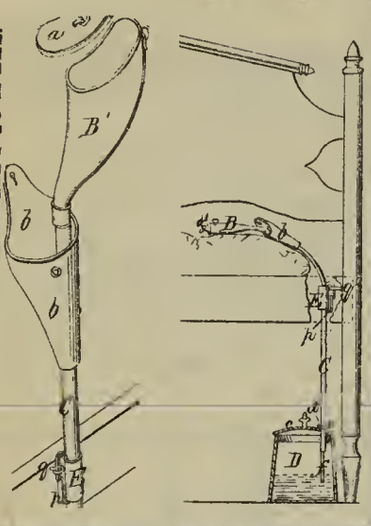
105,977. J. M. PIRET.
LUBRICATING APPARATUS FOR AXLE AND JOURNAL-BOXES.



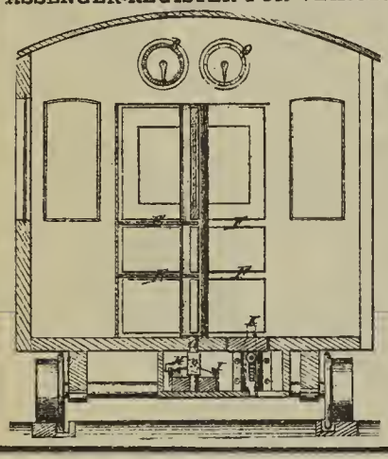


105,978, SAMUEL M. PORTER.
EYELETS FOR FASTENING BUTTONS.

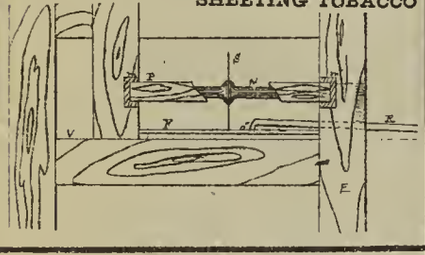
105,979, DANIEL PRICE.
URINAL ATTACHMENT TO A BED.



105,980, JOHN RHOADS.
PASSENGER-REGISTER FOR VEHICLES.



105,981, G. W. RUCKER.
O. C. SWAN.
T. W. RUCKER.
MACHINE FOR PRESSING AND SHEETING TOBACCO



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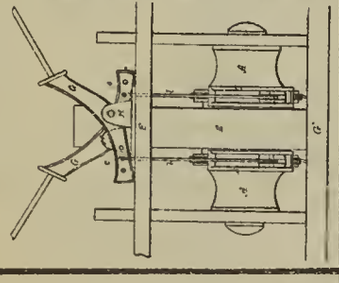
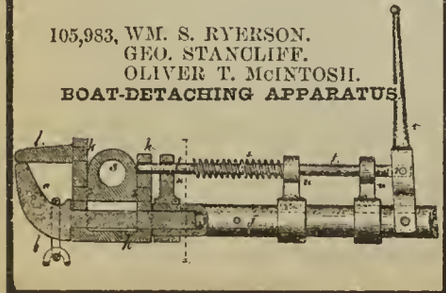
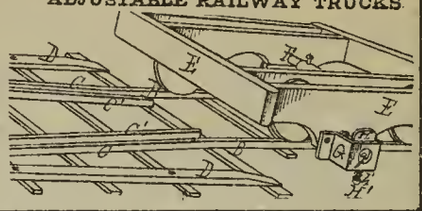
WINDLASSES.



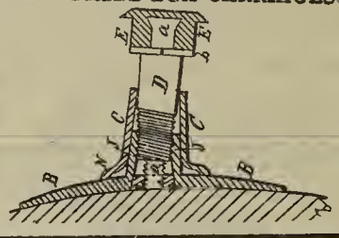
105,983, WM. S. RYERSON.
GEO. STANCLIFF.
OLIVER T. McINTOSH.
BOAT-DETACHING APPARATUS.



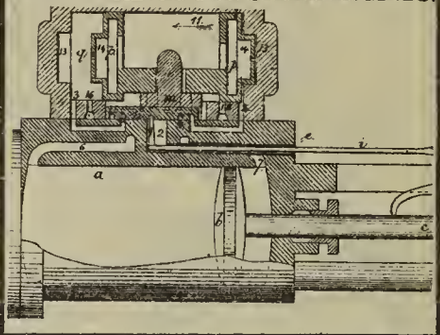
105,984, ADDISON V. SANFORD.
ADJUSTABLE RAILWAY TRUCKS.



105,985, ANSON SEARLS.
TOP-PROPS FOR CARRIAGES.

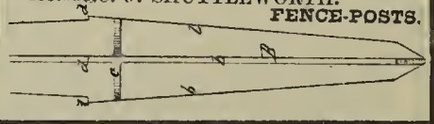


105,986, WM. C. SELDEN.
VALVES FOR STEAM-ENGINES.

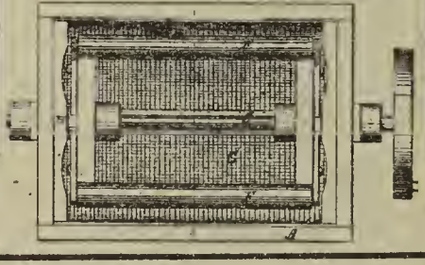


105,987, F. C. SENSEMAN. **PAPER-FILES**

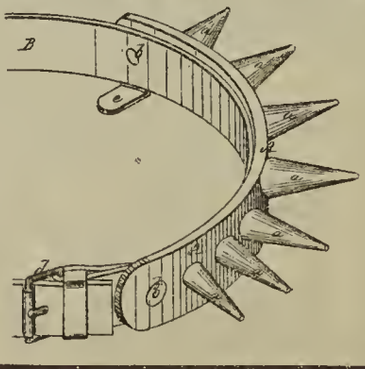
105,988, C. J. SHUTTLEWORTH.
FENCE-POSTS.



105,989, GEO. SIDEY.
SIFTING-MACHINES.

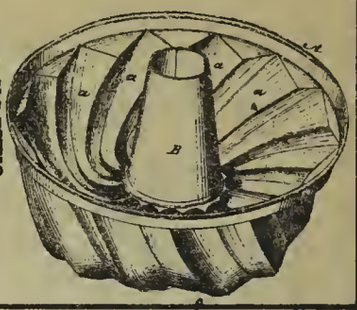


105,990, JOHN SMITH.
INTERFERING-PAD FOR HORSES.

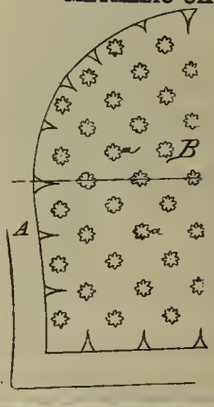


105,991, J. HARRY SMITH. **CAKE-PANS.**

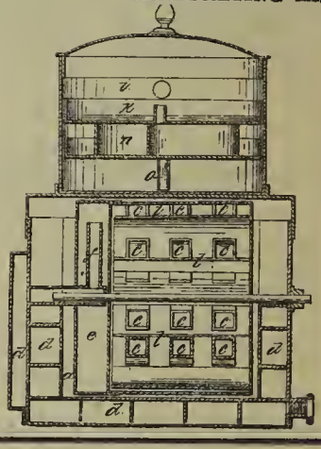
105,992,
J. HARRY SMITH.
CAKE-PAN.



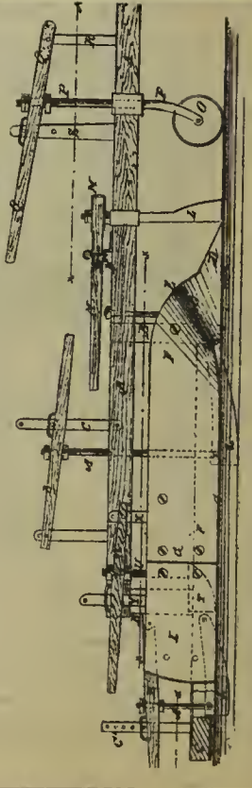
105,993, SILAS ALLEN SNYDER.
METALLIC CHAIR-SEAT.



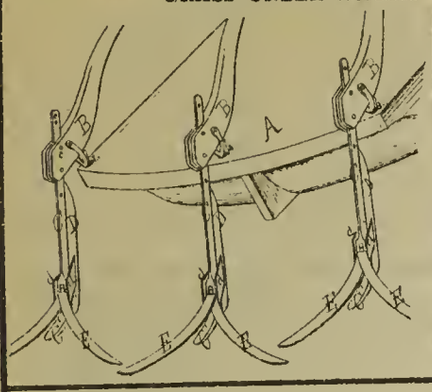
105,994,
JAMES F. SPENCE.
APPARATUS FOR CARBURETING AIR.



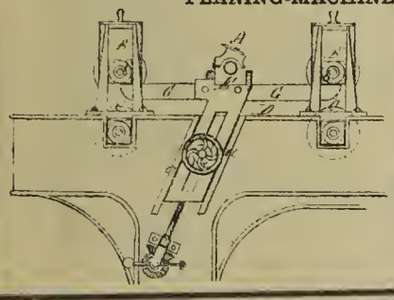
105,995,
ANDREW J. STEPHENS.
DITCHING-MACHINE.



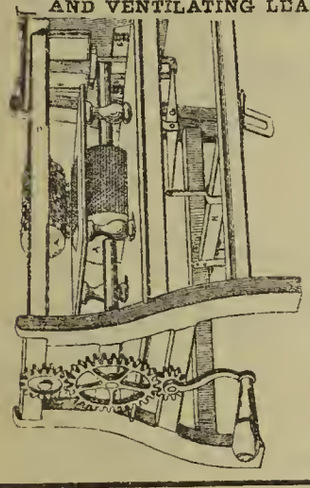
105,996, PETER J. STONE.
APPARATUS FOR CUTTING GRASS UNDER WATER.



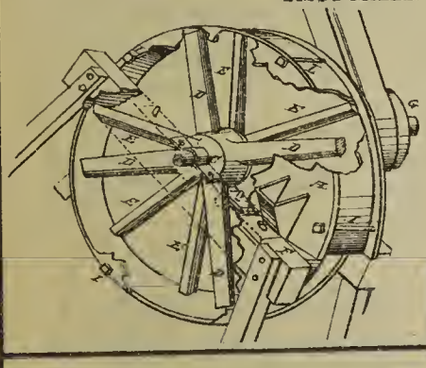
105,997, WILLIAM TEAL.
PLANING-MACHINE.



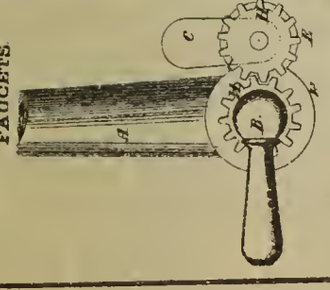
105,998, EDWIN THOMAS.
MACHINE FOR CUSHIONING AND VENTILATING LEATHER.



105,999, WILLIAM CARROLL THOMPSON.
SMUT-MILLS.

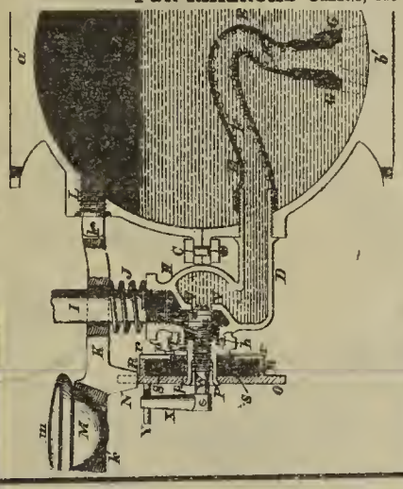


106,000, HENRY B. TIFFANY.
FAUCETS.

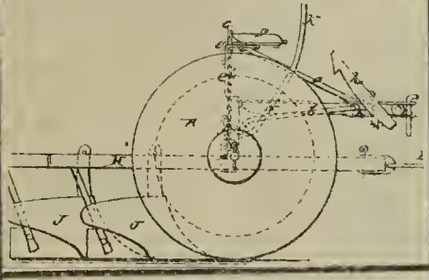


106,001, FREDERICK H. TREVITHICK, JR.
RAILWAY CAR-WHEEL.

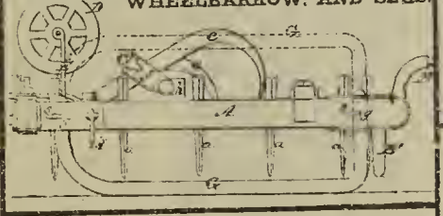
106,002, W. P. VAN DEURSEN.
WILLIAM C. DAVIS.
AUTOMATIC FIRE-EXTINGUISHERS FOR RAILROAD CARS, &c.



106,003, JAMES L. VAN GORDER.
SULKY-PLOWS.

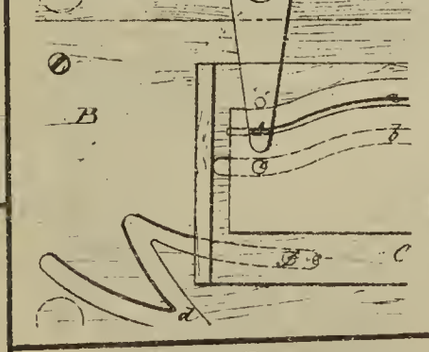


106,004, JACOB R. WAGNER.
COMBINED HARROW, CULTIVATOR, WHEELBARROW, AND SLED.

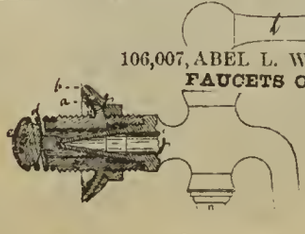


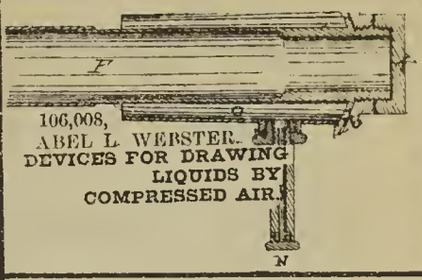
106,005, ROBERT E. WALKER.
CARRIAGE-SPRINGS.

106,006, G. A. WATKINS. SAW-TABLE FOR SAWING IRREGULAR FORMS.



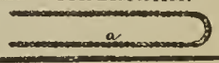
106,007, ABEL L. WEBSTER.
FAUCETS OR TAPS.





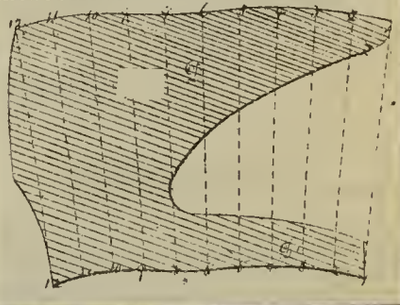
106,008, ABEL L. WEBSTER.
DEVICES FOR DRAWING LIQUIDS BY COMPRESSED AIR.

106,009, WILLIAM WICKERSHAM.
HAIR-PIN.

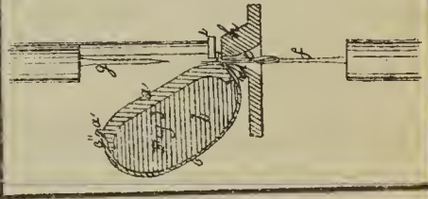


106,010, WILLIAM WICKERSHAM.
MEANS OF ATTACHING THE SOLES TO BOOTS AND SHOES.

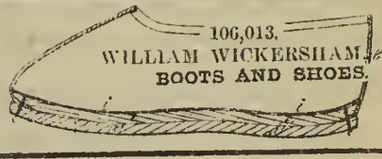
106,011, WILLIAM WICKERSHAM.
WIRE-DRIVING MACHINE FOR MANUFACTURING BOOTS AND SHOES.



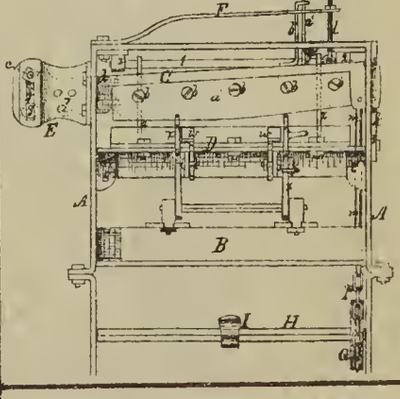
106,012, W. WICKERSHAM.
MANUFACTURE OF BOOTS AND SHOES.



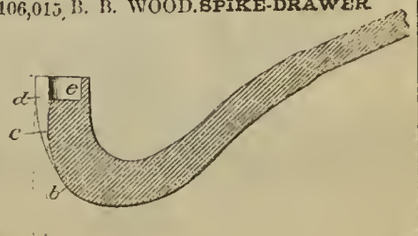
106,013, WILLIAM WICKERSHAM.
BOOTS AND SHOES.



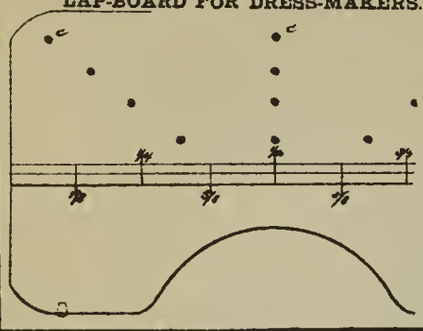
106,014, WILLIAM WIDDOWSON.
STAVE-JOINTING MACHINE.



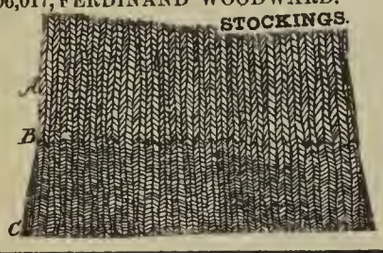
106,015, B. B. WOOD. SPIKE-DRAWER.



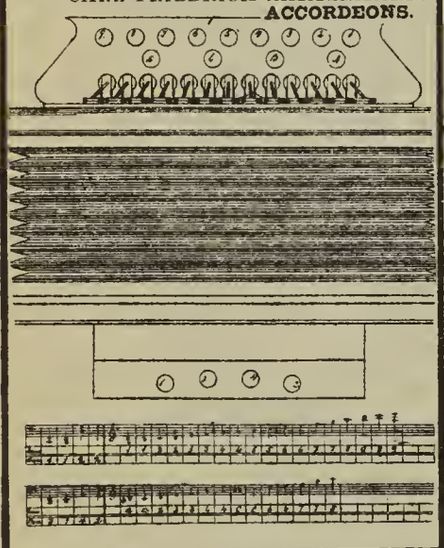
106,016. ROYAL L. WOODBURY.
LAP-BOARD FOR DRESS-MAKERS.



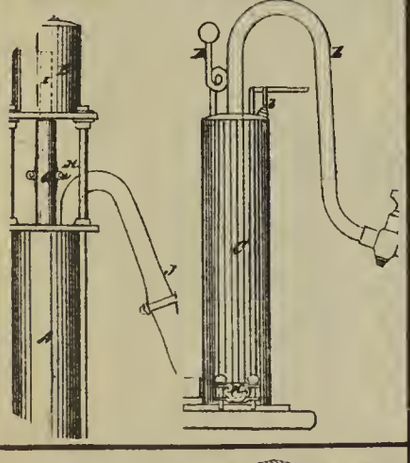
106,017, FERDINAND WOODWARD.
STOCKINGS.



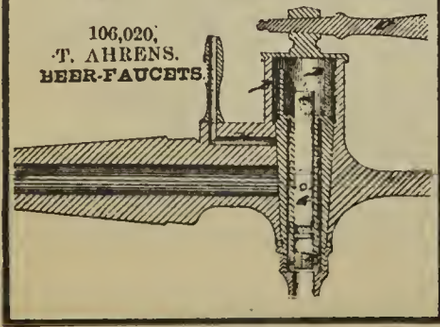
106,018,
CARL FRIEDRICH ZIMMERMANN.
ACCORDEONS.



106,019, T. AHRENS.
PRESERVING AND DELIVERING BEER, ALE, &c. ON DRAUGHT. BY MEANS OF CARBONIC-ACID GAS.

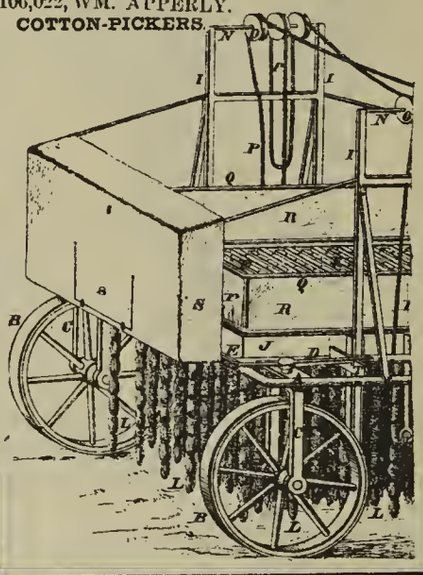


106,020,
T. AHRENS.
BEER-FAUCETS.



106,021, JAMES H. ANDERSON.
BROOMS, &c.

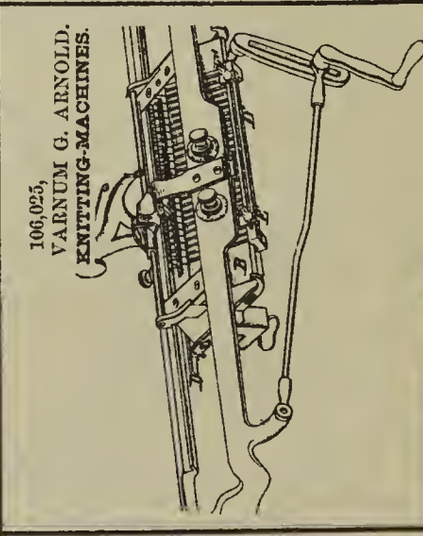
106,022, WM. APPERLY.
COTTON-PICKERS.



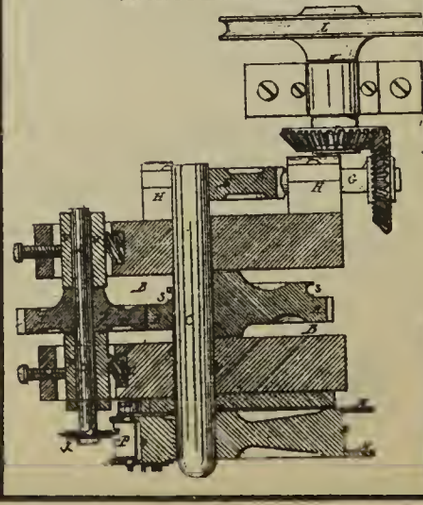
106,023, JOSEPH F. APPLEGATE. BUNGS.

106,024, EUGENE ARNHEIM.
FABRIC FOR HEAD-COVERINGS.

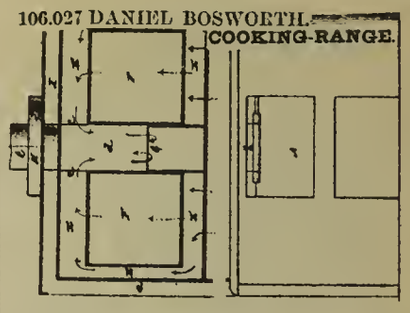
106,025,
VARNUM G. ARNOLD.
KNITTING-MACHINES.



106,026, JOS. B. BLANCHARD.
MACHINES FOR MANUFACTURING NEEDLES.

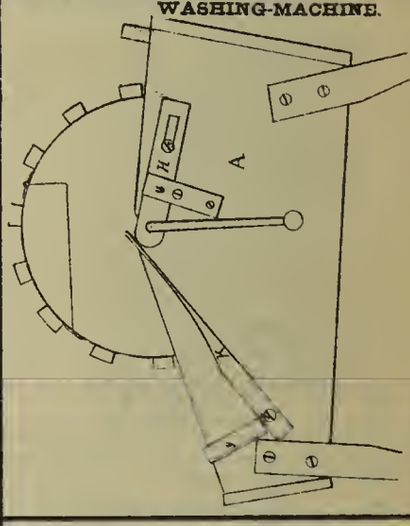


106,027 DANIEL BOSWORTH.
COOKING-RANGE.

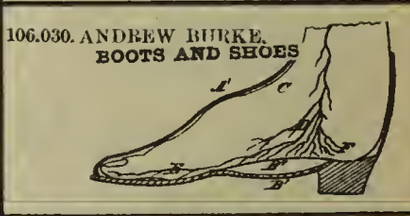


106,028, SILAS M. BROOKS.
SPRING BED-BOTTOM.

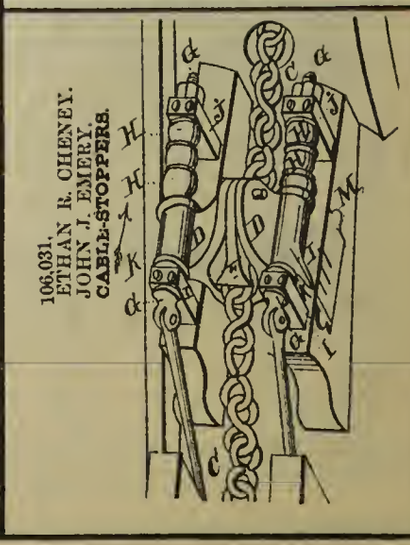
106,029, DANIEL BROY.
WASHING-MACHINE.



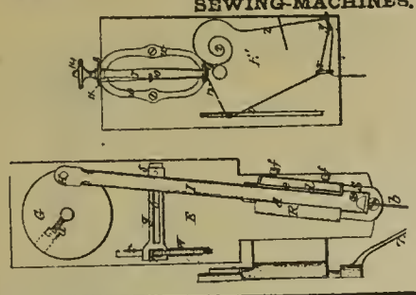
106,030. ANDREW BURKE.
BOOTS AND SHOES



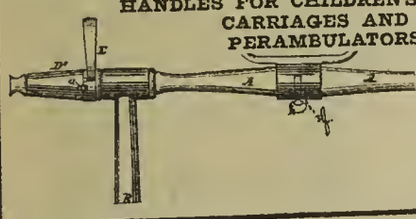
106,031.
ETHAN R. CHENEY.
JOHN J. EMERY.
CABLE-STOPPERS.



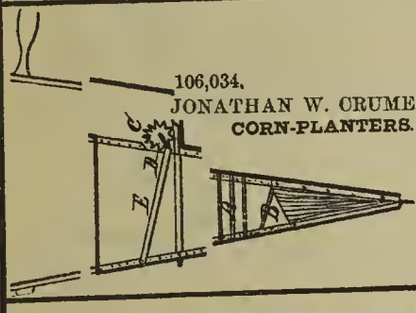
106,032. JOHN V. COON.
SEWING-MACHINES.

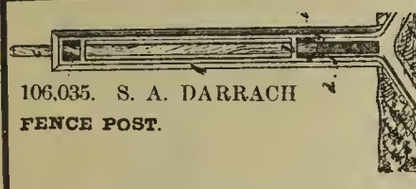


106,033, WM. E. CRANDALL.
HANDLES FOR CHILDREN'S CARRIAGES AND PERAMBULATORS.



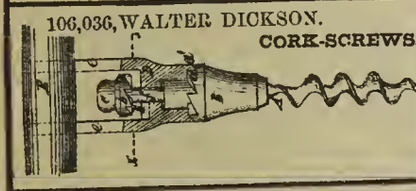
106,034.
JONATHAN W. CRUME.
CORN-PLANTERS.



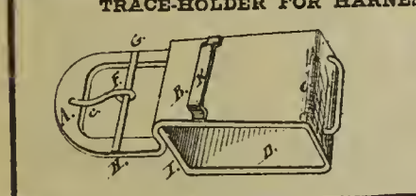


106,035. S. A. DARRACH
FENCE POST.

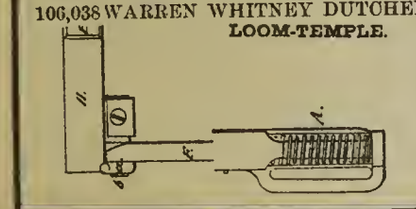
106,036, WALTER DICKSON.
CORK-SCREWS.



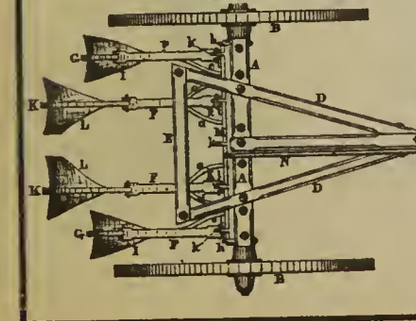
106,037, RICHARD M. DILL.
TRACE-HOLDER FOR HARNESS.

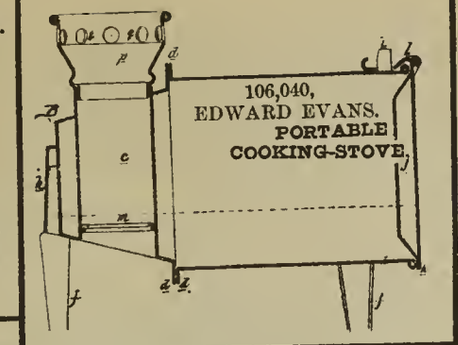


106,038 WARREN WHITNEY DUTCHER.
LOOM-TEMPLE.



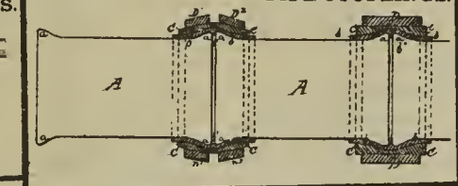
106,039, JEFFERSON ESHLEMAN.
WHEEL CULTIVATORS.



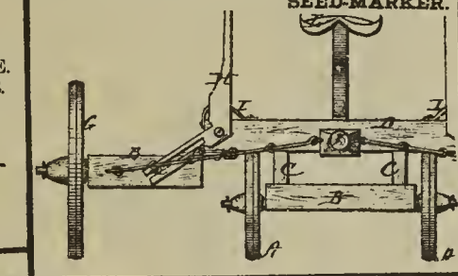


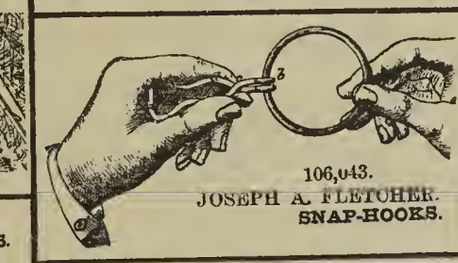
106,040,
EDWARD EVANS.
PORTABLE COOKING-STOVE.

106,041, LOUIS ALEXANDRE FARJON.
PIPE-COUPLINGS.



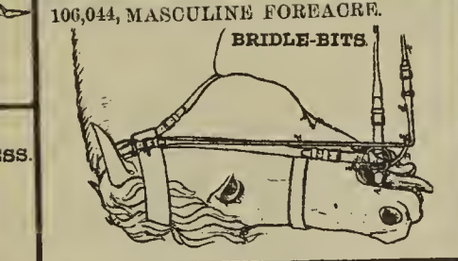
106,042. STEPHEN D. FISHER.
SEED-MARKER.



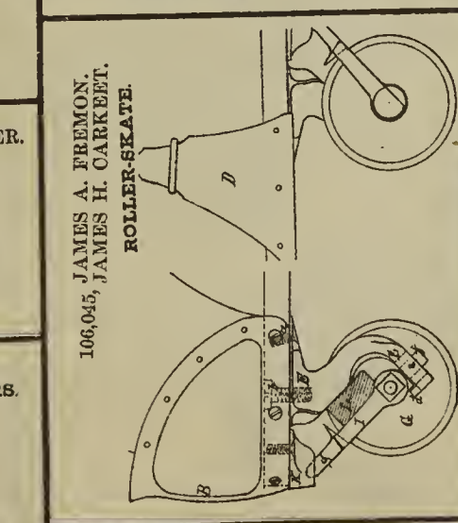


106,043.
JOSEPH A. FLETCHER.
SNAP-HOOKS.

106,044, MASCULINE FOREACRE.
BRIDLE-BITS.

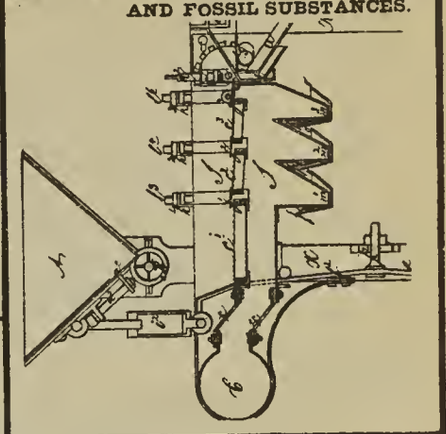


106,045, JAMES A. FREMON,
JAMES H. CARKBET.
ROLLER-SKATE.

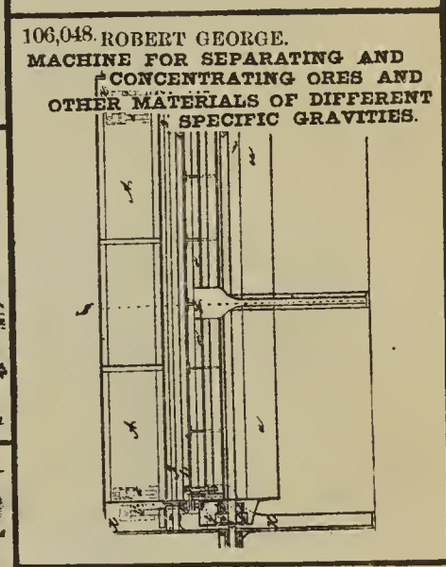


106,046, AUGUST FRIEDEMANN.
HARROWS.

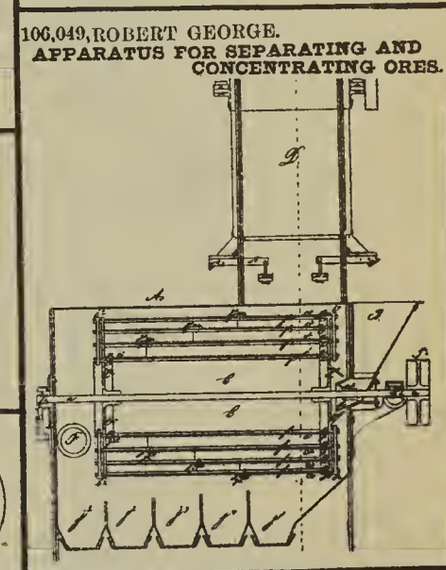
106,047, ROBERT GEORGE.
MACHINE FOR SEPARATING MINERAL AND FOSSIL SUBSTANCES.



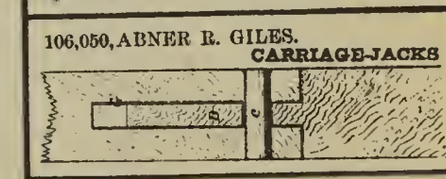
106,048. ROBERT GEORGE.
MACHINE FOR SEPARATING AND CONCENTRATING ORES AND OTHER MATERIALS OF DIFFERENT SPECIFIC GRAVITIES.



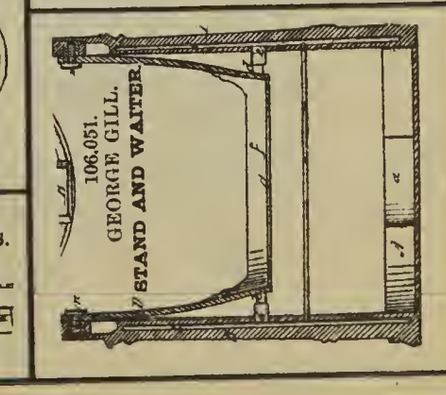
106,049, ROBERT GEORGE.
APPARATUS FOR SEPARATING AND CONCENTRATING ORES.

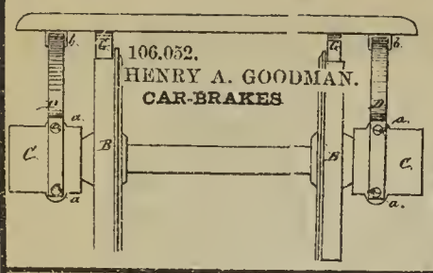


106,050, ABNER R. GILES.
CARRIAGE-JACKS



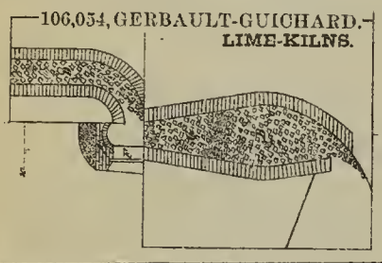
106,051.
GEORGE GILL.
STAND AND WAITER.



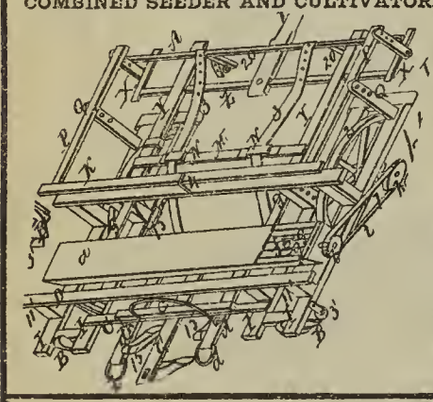


106,052. HENRY A. GOODMAN. CAR-BRAKES.

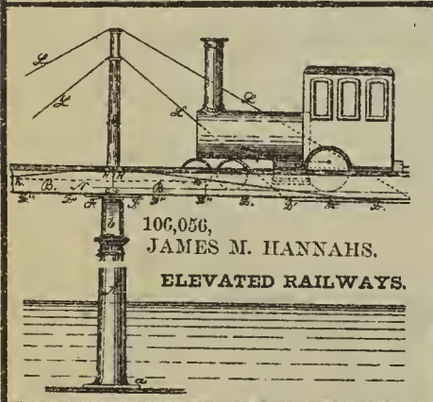
106,053, HENRY GROGAN. LUBRICATING COMPOUNDS.



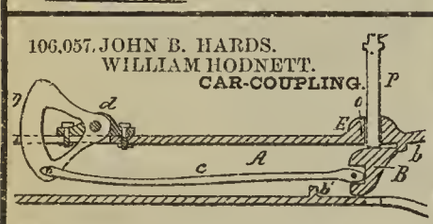
106,054, GERBAULT-GUICHARD. LIME-KILNS.



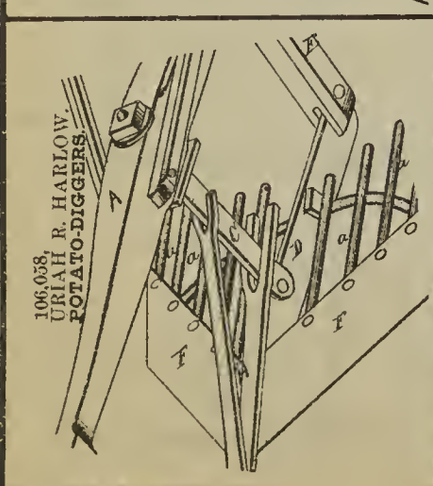
106,055, HENRY HAINES. COMBINED SEEDER AND CULTIVATOR.



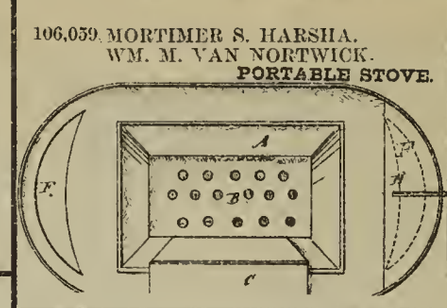
106,056, JAMES M. HANNAHS. ELEVATED RAILWAYS.



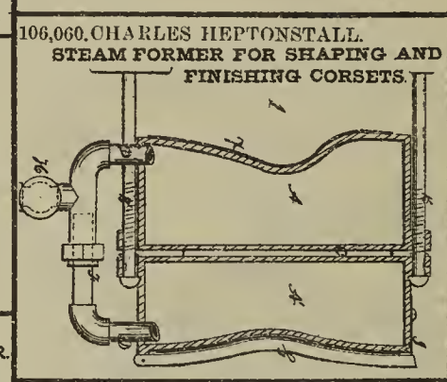
106,057. JOHN B. HARDS. WILLIAM HODNETT. CAR-COUPLING.



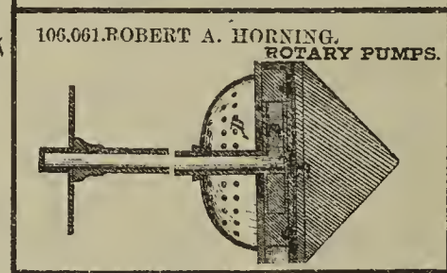
106,058, URIAH R. HARLOW. POTATO-DIGGERS.



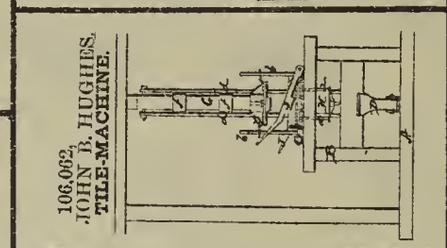
106,059. MORTIMER S. HARSHA. WM. M. VAN NORTWICK. PORTABLE STOVE.



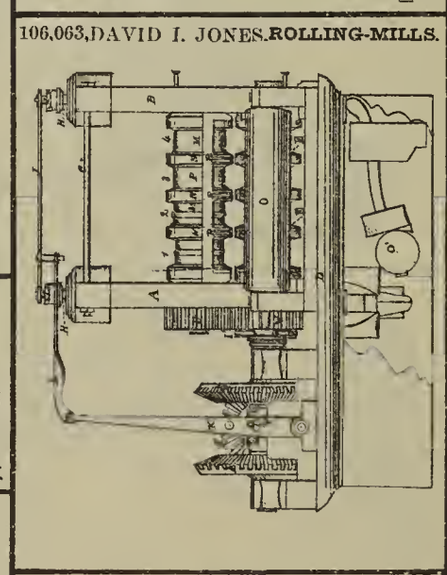
106,060. CHARLES HEPTONSTALL. STEAM FORMER FOR SHAPING AND FINISHING CORSETS.



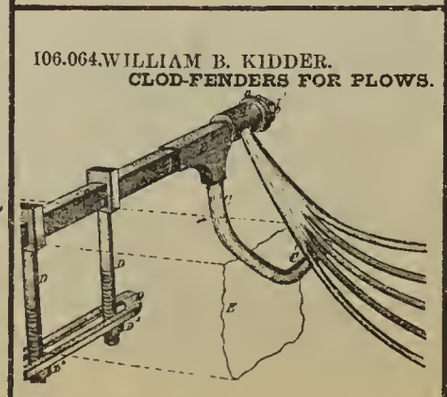
106,061. ROBERT A. HORNING. ROTARY PUMPS.



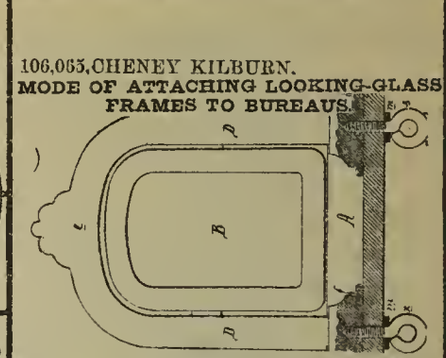
106,062, JOHN B. HUGHES. TILE-MACHINE.



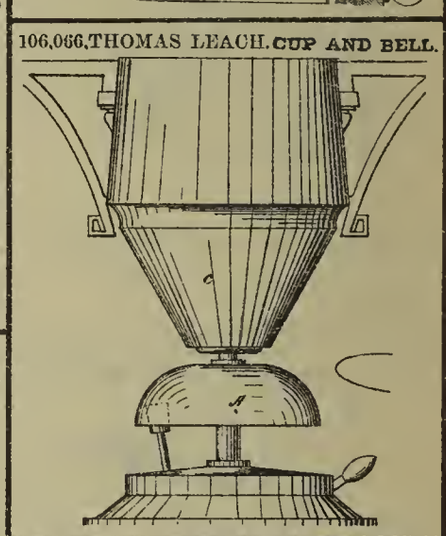
106,063, DAVID I. JONES. ROLLING-MILLS.



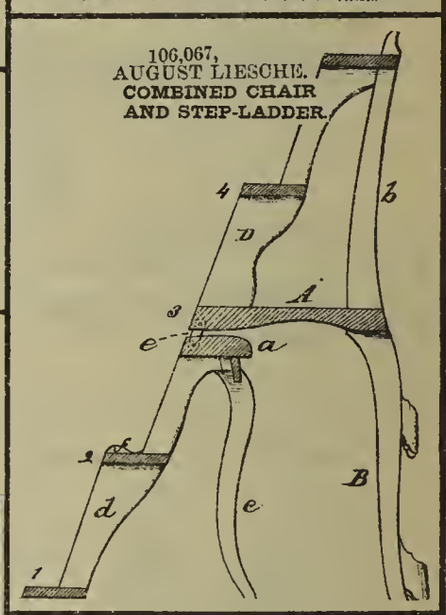
106,064. WILLIAM B. KIDDER. CLOD-FENDERS FOR PLOWS.



106,065, CHENEY KILBURN. MODE OF ATTACHING LOOKING-GLASS FRAMES TO BUREAUS.



106,066, THOMAS LEACH. CUP AND BELL.

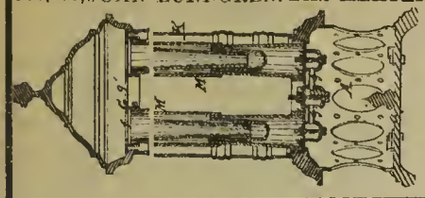


106,067, AUGUST LIESCHE. COMBINED CHAIR AND STEP-LADDER.

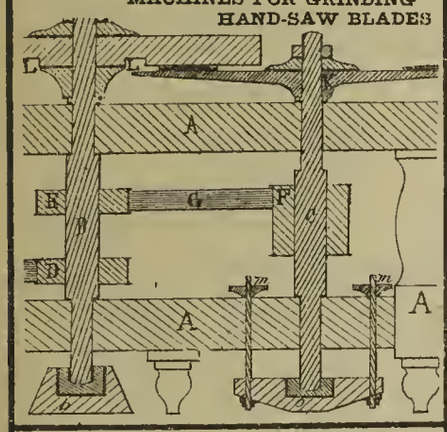
106,068, HENRY LOEWENBERG. MANUFACTURE OF IMITATION BRAIDS, TRIMMINGS, &c.

106,069, WILLIAM LORD. SPRING FOR BEDS, SOFAS, &c.

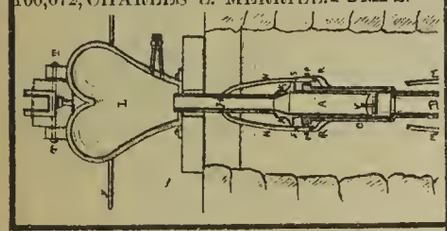
106,070, JOHN LUNDGREN. GAS HEATER.



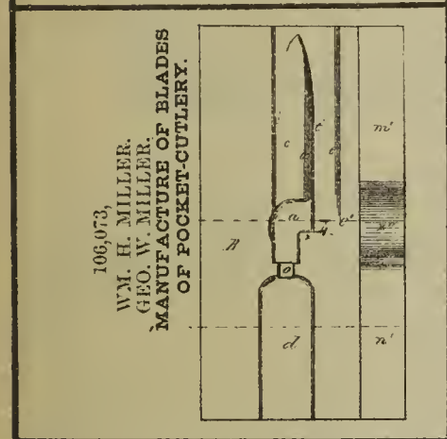
106,071, DAVID M. MEFFORD.
MACHINES FOR GRINDING HAND-SAW BLADES



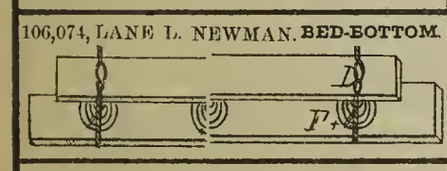
106,072, CHARLES L. MERRILL. PUMPS.

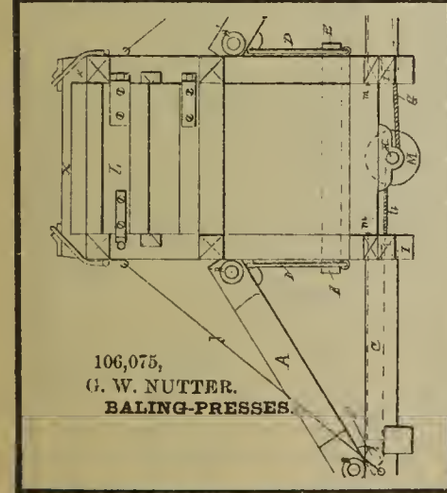


106,073,
WM. H. MILLER.
GEO. W. MILLER.
MANUFACTURE OF BLADES OF POCKET-CUTLERY.



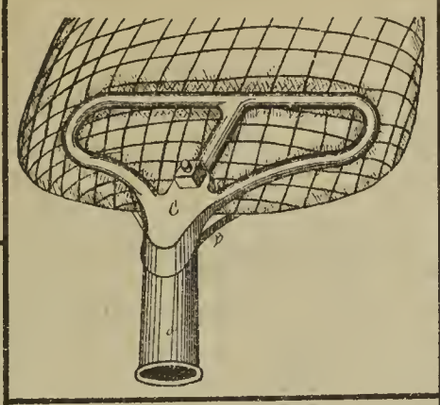
106,074, LANE L. NEWMAN. BED-BOTTOM.



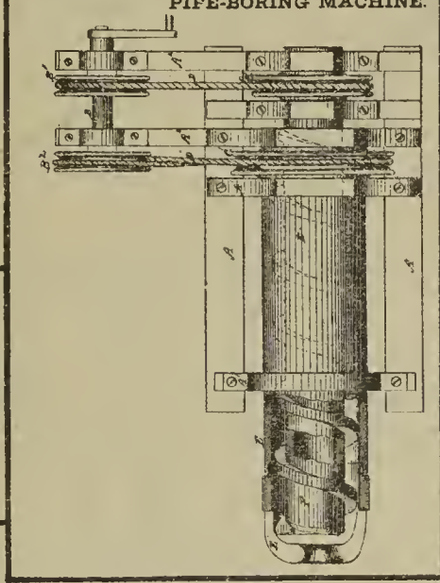


106,075,
G. W. NUTTER.
BALING-PRESSES.

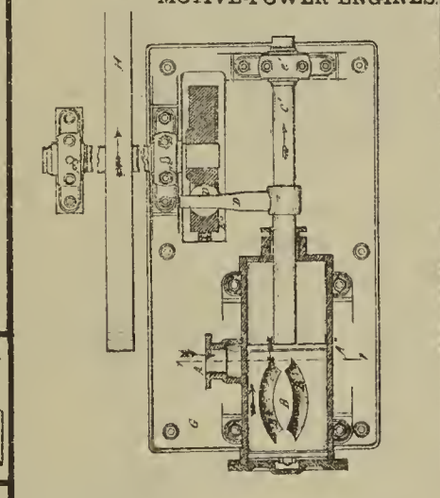
106,076, HENRY DIETRICH OHLSEN.
COACH-CLEANING SPONGE.

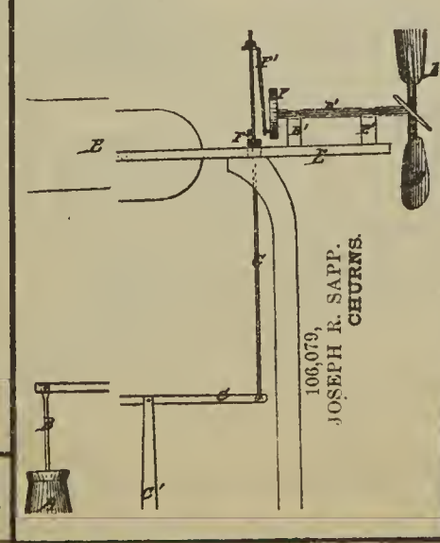


106,077, THOMAS W. PURCELL.
PIPE-BORING MACHINE.



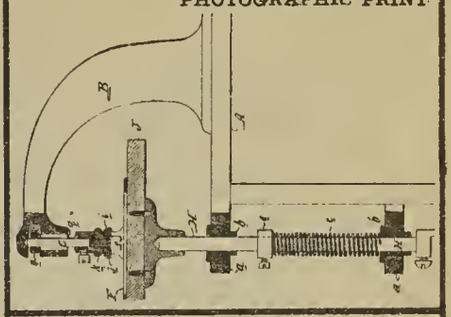
106,078, JAMES ROBERTSON.
MOTIVE-POWER ENGINES.



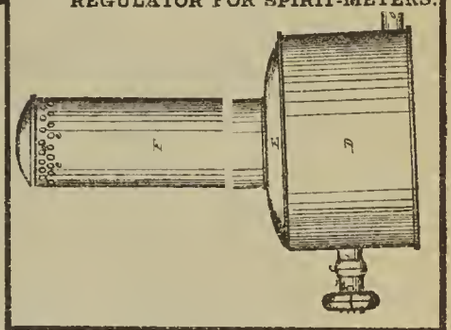


106,079,
JOSEPH R. SAPP.
CHURNS.

106,080, THOMAS MARTIN SAURMAN.
CUTTING APPARATUS. PHOTOGRAPHIC PRINT

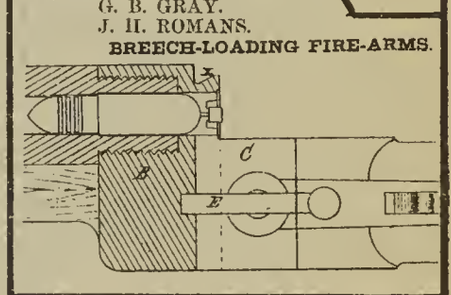


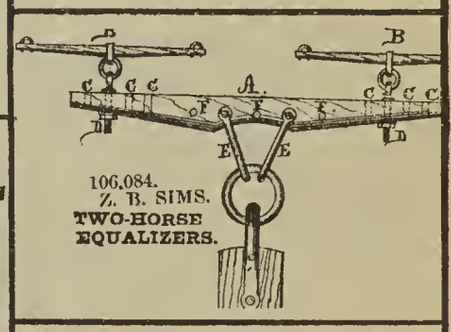
106,081, LOUIS SCHULZE.
REGULATOR FOR SPIRIT-METERS.



106,082, NATHANIEL SEHNER.
UMBRELLAS.

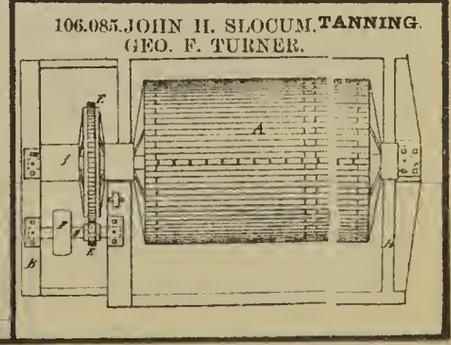
106,083, THOMAS D. SIMPSON.
G. B. GRAY.
J. H. ROMANS.
BREECH-LOADING FIRE-ARMS.



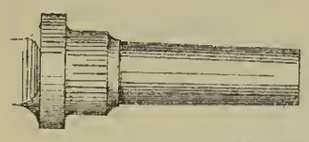


106,084.
Z. B. SIMS.
TWO-HORSE EQUALIZERS.

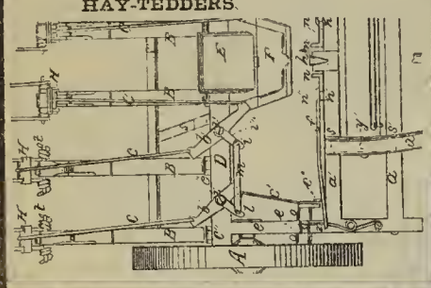
106,085. JOHN H. SLOCUM. TANNING.
GEO. F. TURNER.



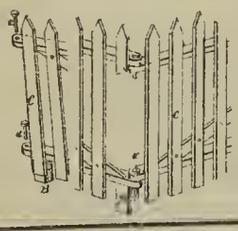
106,086, ALFRED E. SMITH.
MANUFACTURE OF CARRIAGE-AXLES.



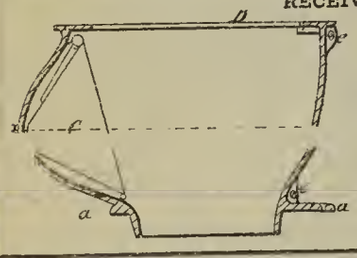
106,087, FRANKLIN R. SMITH.
HAY-TEDDERS.



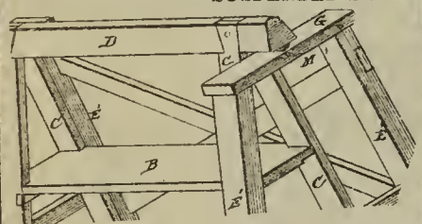
106,088, JOHN O. SMITH.
PORTABLE FENCE.



106,089, W. SMITH. WATER-CLOSET RECEIVERS.

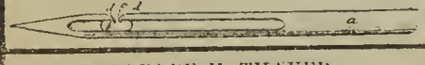


106,090, JOSEPH B. STOCKTON.
SUSPENDED SHELF.

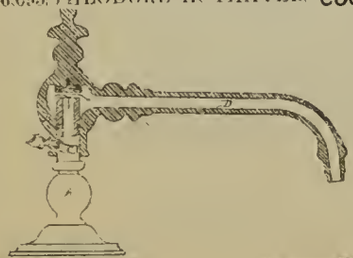


106,091, JOHN STOWE.
APPARATUS FOR THE TREATMENT OF FRACTURE OF THE LOWER JAW.

106,092, EDWIN STRAIN.
NEEDLE FOR SEWING-MACHINE.

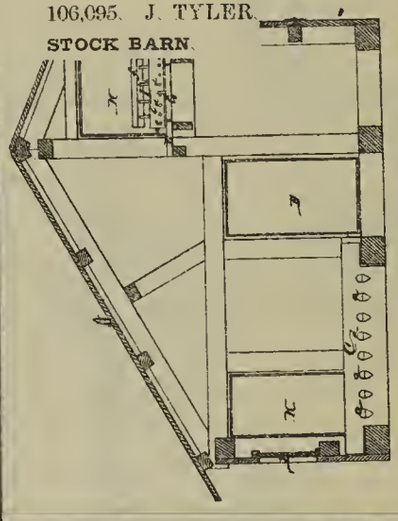


106,093, THEODORE H. THAYER. COCK.

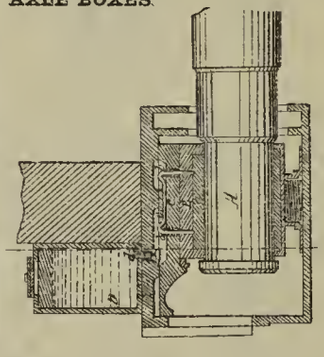


106,094, WM. H. TOPHAM. SPITTOON.

106,095, J. TYLER.
STOCK BARN.



106,096, E. VON JEINSEN.
LUBRICATING JOURNAL OF RAILWAY AXLE BOXES.

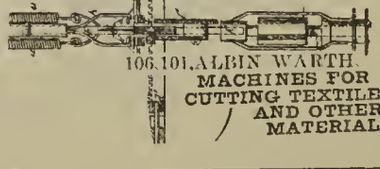


106,097, CANCELED.

106,098, REDFORD W. WALKER.
DEVICE FOR MOISTENING AND CLOSING ENVELOPES.

106,099, THO. E. WARREN.
ADJUSTABLE GAUGE.

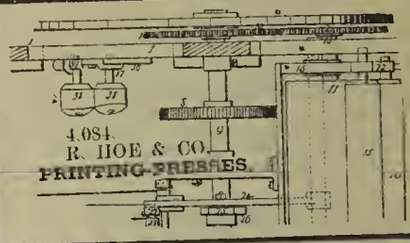
106,100, ALBIN WARTH.
BUNGS.



106,101, ALBIN WARTH.
MACHINES FOR CUTTING TEXTILE AND OTHER MATERIAL.

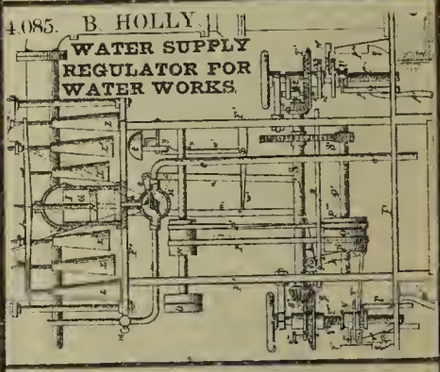
106,102, CHARLES H. WOLCOTT.
CLOTHES-RACK.

106,103, GEO. SEWELL.
METERS.

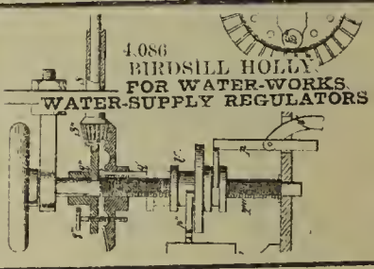


4,084, R. HOE & CO.
PRINTING-PRESSES.

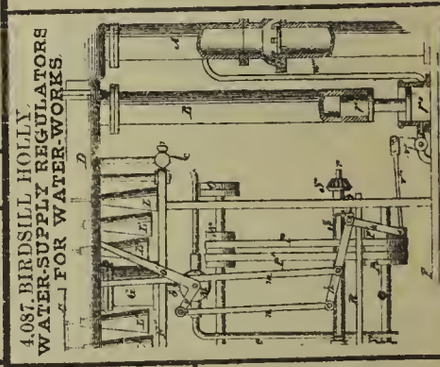
4,085, B. HOLLY.
WATER SUPPLY REGULATOR FOR WATER WORKS.



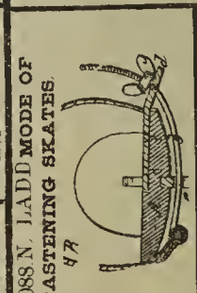
4,086, BIRDSILL HOLLY.
WATER-SUPPLY REGULATORS FOR WATER-WORKS.



4,087, BIRDSILL HOLLY.
WATER-SUPPLY REGULATORS FOR WATER-WORKS.



4,088, N. LADD. MODE OF FASTENING SKATES.



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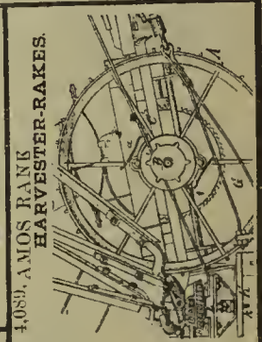

4,090, G. H. SANBORN.
PAPER CUTTING MACHINE.

4,091
J. H. THOMAS, P. P. MAST AND C. O. GARDINER.
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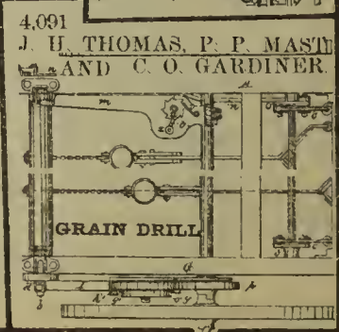

ILLUSTRATIONS OF PATENTS

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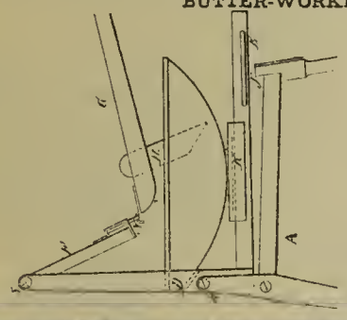
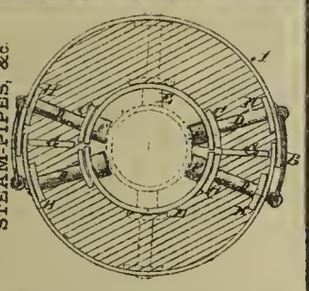
106,104, J. P. ADAMS.
J. P. CORBIN.
BUTTER-WORKER.



106,105, FRANCIS Y. ARNOLD.
NON-CONDUCTING CASING FOR BOILERS, STEAM-PIPES, &c.



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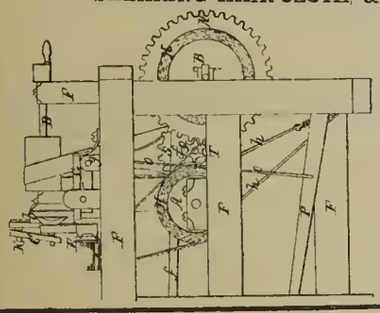
MACHINE FOR TRIMMING AND SHEARING HAIR-CLOTH, &c.



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WILLIAM BALL.
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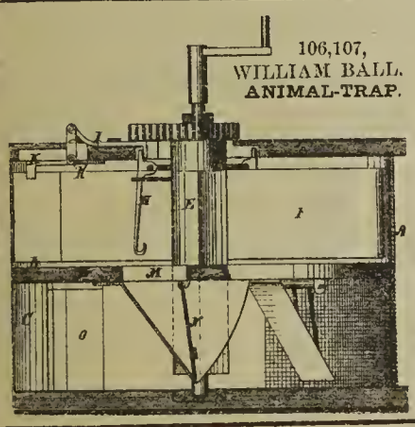

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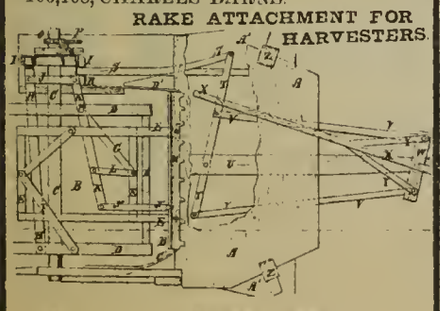
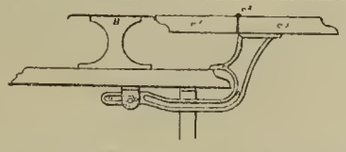
RAKE ATTACHMENT FOR HARVESTERS.

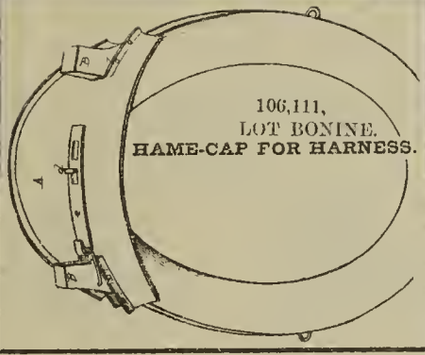


106,109,
JAMES BLAKE. **SUPPORT FOR TABLES.**



106,110, JAMES BLAKE.
SUPPORT FOR TABLES.

106,111,
LOT BONINE.
HAME-CAP FOR HARNESS.



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PREPARATION OF ALBUMEN.

106,113, GEORGE R. BOWMAN.
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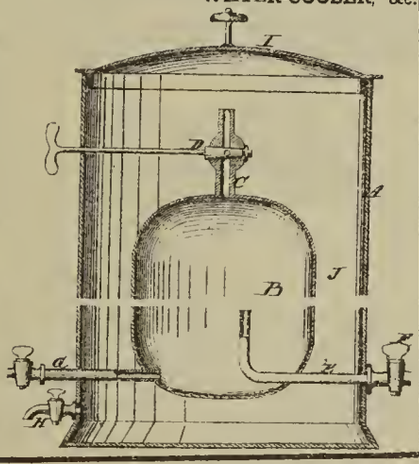

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SHUTTER-WORKERS.

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JAMES BRITTON.
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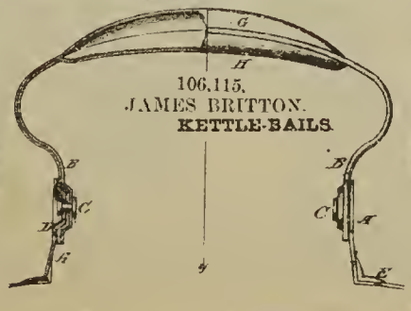
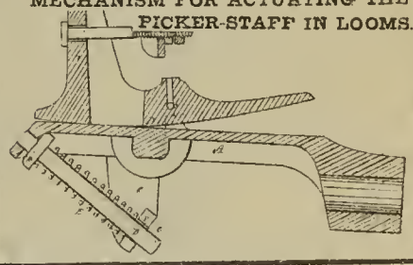


106,116, MICAJAH C. BURLEIGH.
MECHANISM FOR ACTUATING THE PICKER-STAFF IN LOOMS.



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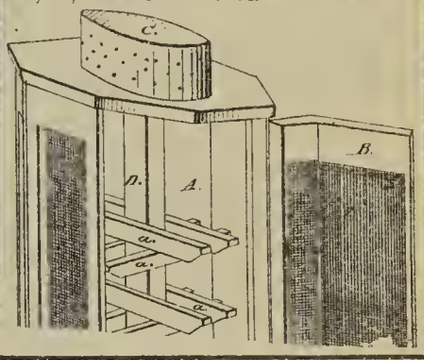

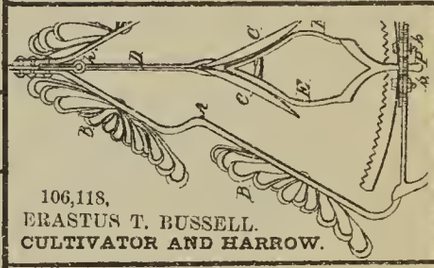

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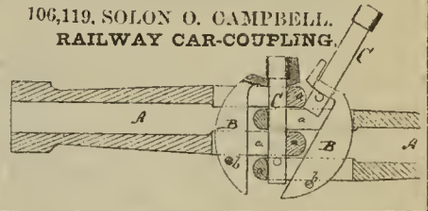
ERASTUS T. BUSSELL.
CULTIVATOR AND HARROW.

106,119, SOLON O. CAMPBELL.
RAILWAY CAR-COUPLING.



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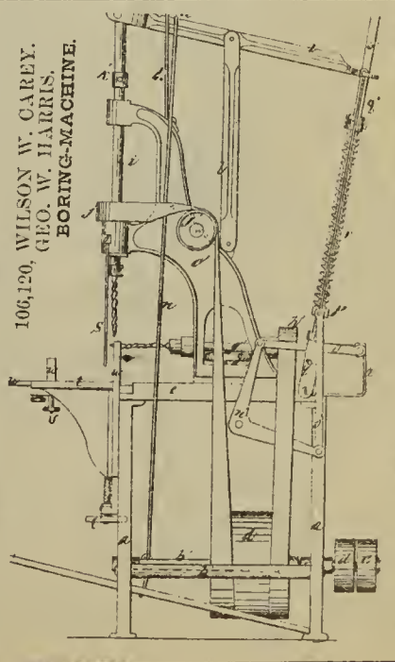
GEO. W. HARRIS.
BORING-MACHINE.



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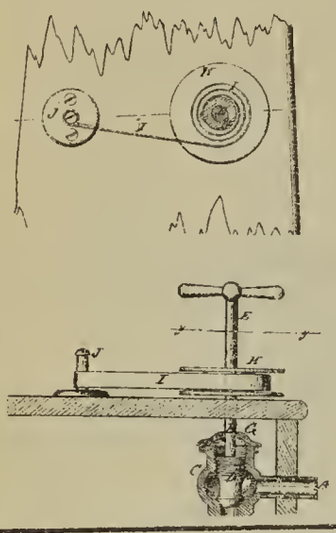
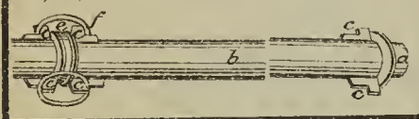
VALVES FOR STOP-COCKS.



106,122, PATRICK CLARK. PIPE-JOINTS.



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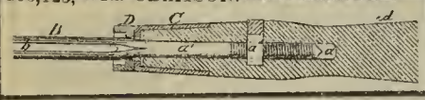

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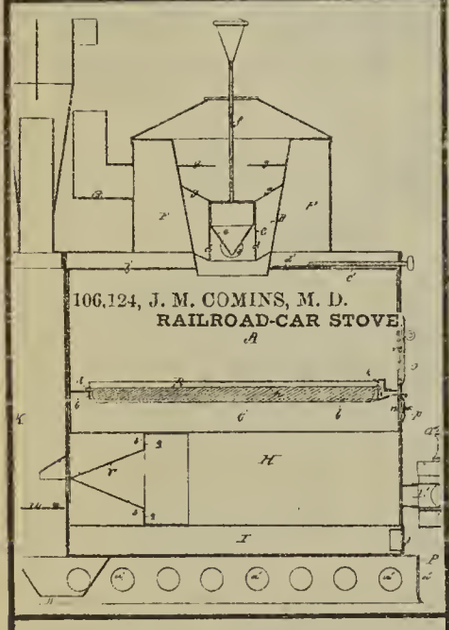
RAILROAD-CAR STOVE.



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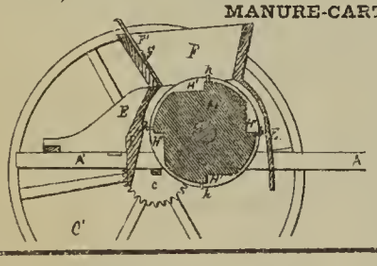
MANURE-CARTS.



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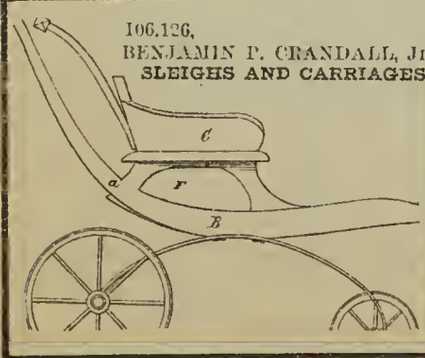
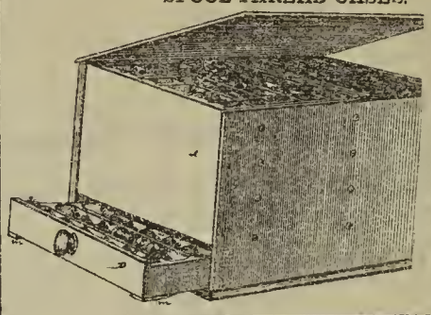
BENJAMIN P. CRANDALL, JR.
SLEIGHS AND CARRIAGES



106,127, WALTER S. CROOKER.
MEDICAL COMPOUND AND LINIMENT.

106,128, JOHN D. CUTTER.
SPOOL-THREAD CASES.



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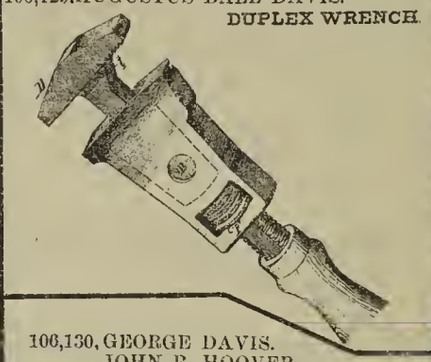
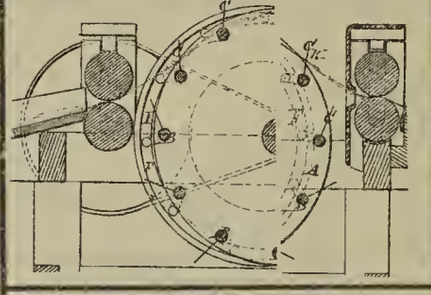
DUPLEX WRENCH.



106,130, GEORGE DAVIS.
JOHN R. HOOVER.
DRAWING-FRAMES FOR HEMP, &c.



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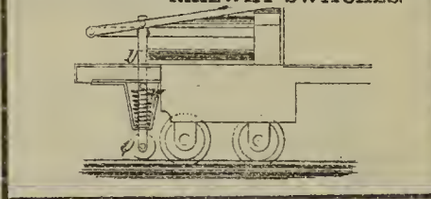
RAILWAY SWITCHES.



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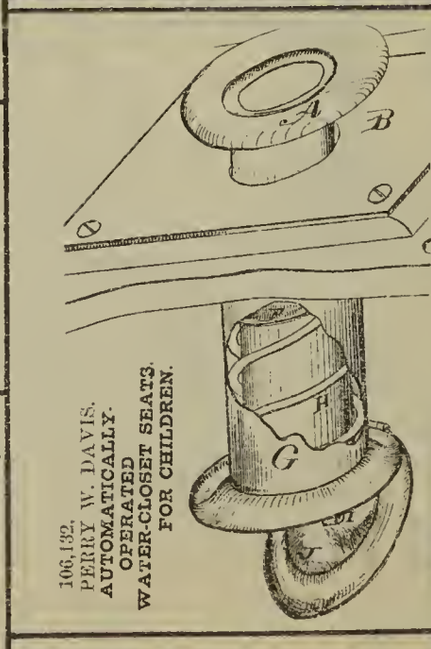
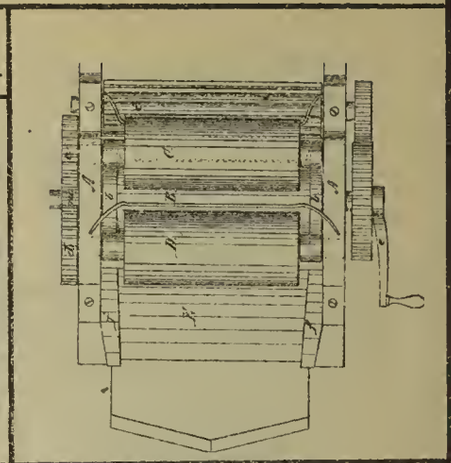
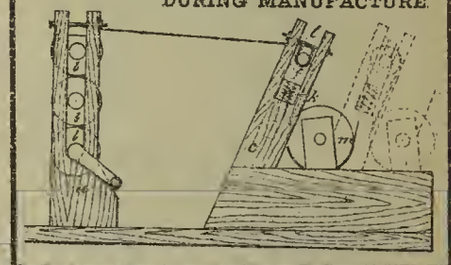
PERRY W. DAVIS.
AUTOMATICALLY-OPERATED WATER-CLOSET SEATS FOR CHILDREN.



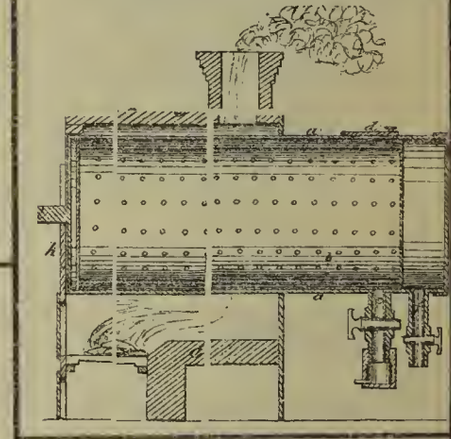
106,133, LORENZO DEAN.
APPARATUS FOR REDUCING FIBROUS MATERIAL TO A TEXTILE STOCK.



106,134, LORENZO DEAN.
ATTACHMENT TO PAPER-MACHINES TO PREVENT THE STRAINING AND BREAKING OF THE PAPER DURING MANUFACTURE.



106,135, LORENZO DEAN.
BOILER FOR REDUCING FIBROUS MATERIALS TO TEXTILE STOCK.



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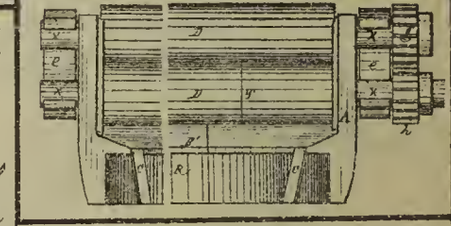
CLOTHES-WRINGER.



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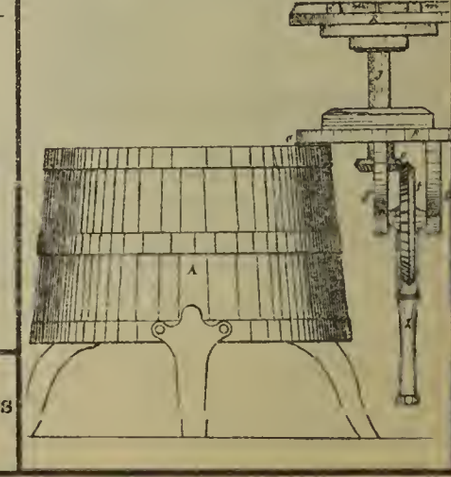
WASHING-MACHINE.



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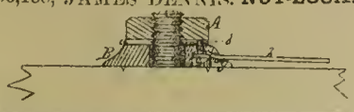

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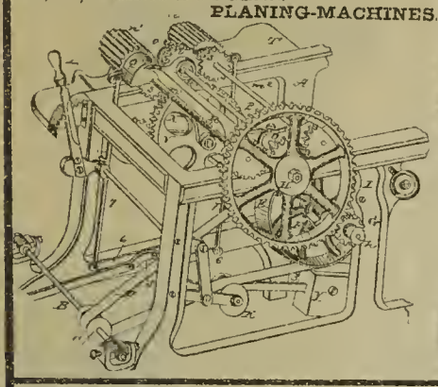

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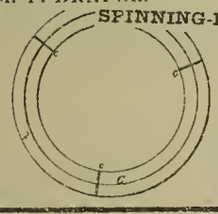

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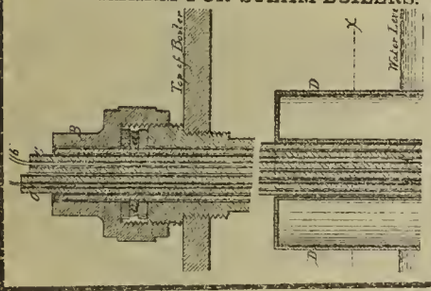
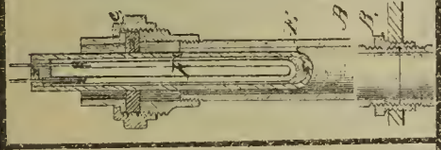
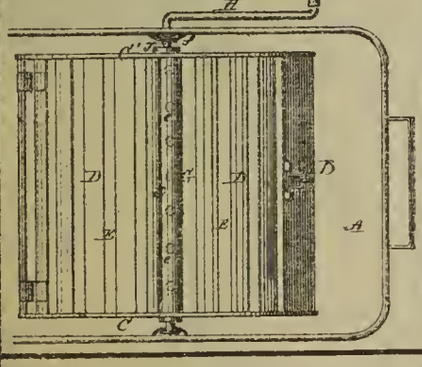


106,142, WRIGHT DURYEA ELECTRO-MAGNETIC LOW-WATER DETECTER FOR STEAM-BOILERS.



106,143, A. K. EATON. MANUFACTURE OF PAPER PULP.

106,144, WILLIAM EATON. WASHING-MACHINE.



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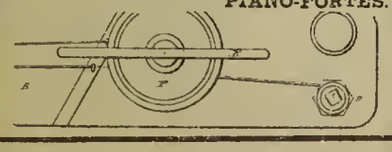
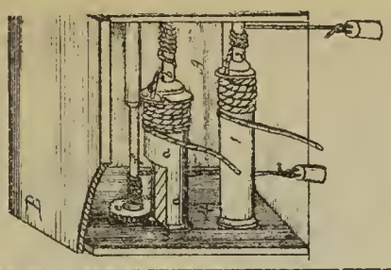


106,146, WILLIAM FARRAH. AUTOMATIC REELS FOR CLOTHES-LINES.



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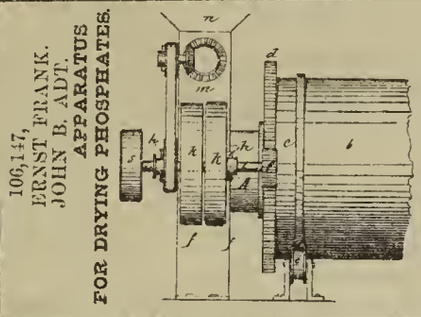

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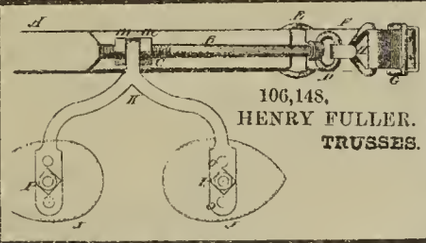
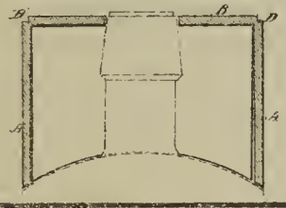
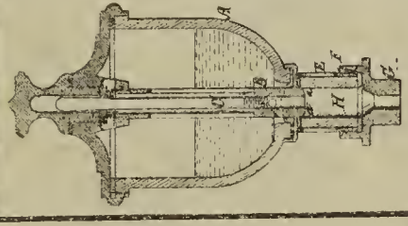


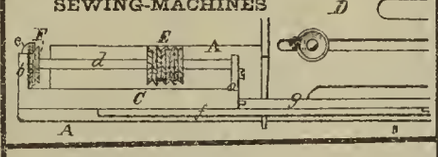
106,149, GEORGE C. FURBER. DEVICE FOR PACKING BOTTLES.



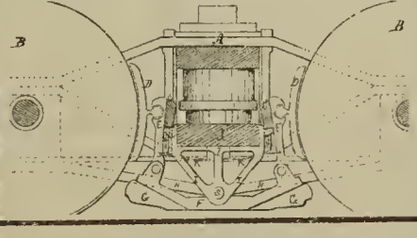
106,150, WILLIAM GEE. LUBRICATOR.



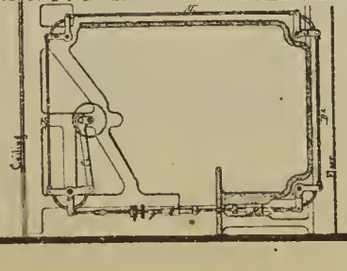
106,151, HARRY C. GOODRICH. TUCK-CREASING ATTACHMENT FOR SEWING-MACHINES



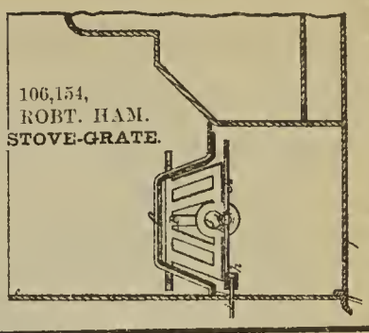
106,152, MERRITT W. GRISWOLD. CAR-BRAKES.



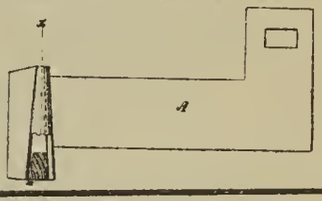
106,153, N. B. HADLEY. SCROLL-SAW.



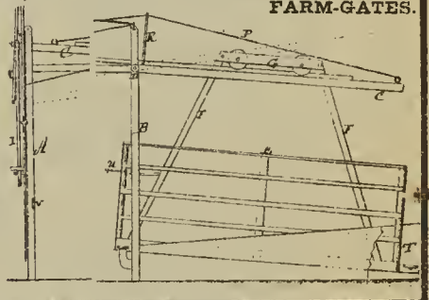
106,154, ROBT. HAM. STOVE-GRATE.



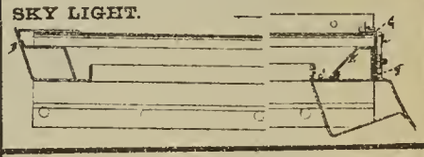
106,155, MILO HARRIS. HEMMER FOR SEWING-MACHINE.



106,156, AMASA HATHAWAY. FARM-GATES.

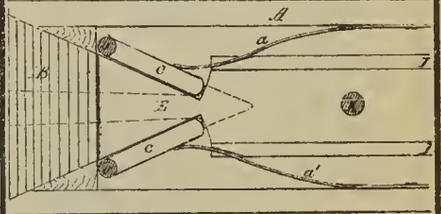


106,157. G. HAYES. SKY LIGHT.

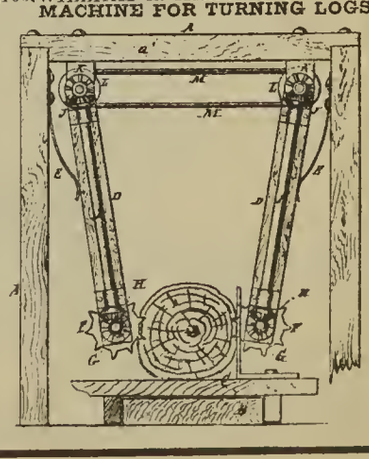


106,158, JOSIAH D. HEEBNER. MANURE-DRAG.

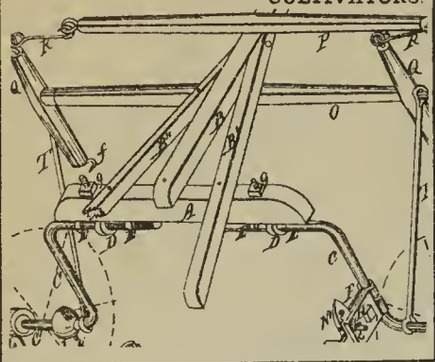
106,159, JACOB WILSON HESS. RAILWAY-CAR COUPLING.



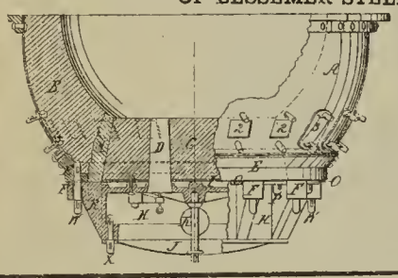
106,160, WILLIAM E. HILL. MACHINE FOR TURNING LOGS.



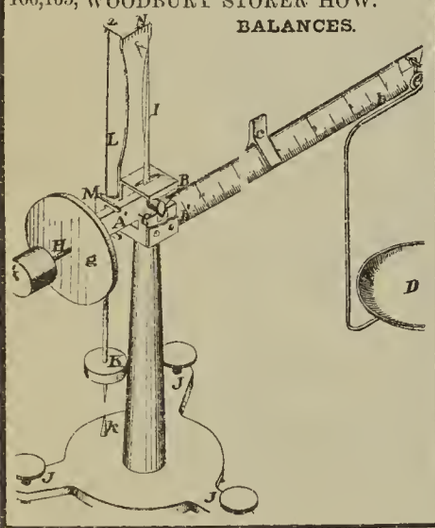
106,161, S. B. HOISINGTON.
CULTIVATORS.



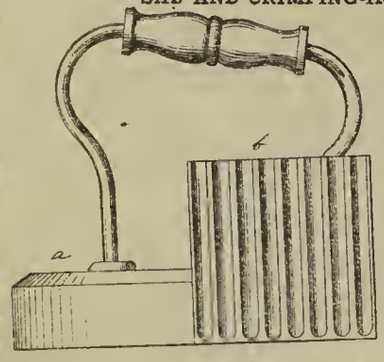
106,162, A. L. HOLLEY.
APPARATUS FOR THE MANUFACTURE OF BESSEMER STEEL.



106,163, WOODBURY STORER HOW.
BALANCES.



106,164, CHARLES HYATT.
SAD AND CRIMPING-IRON.



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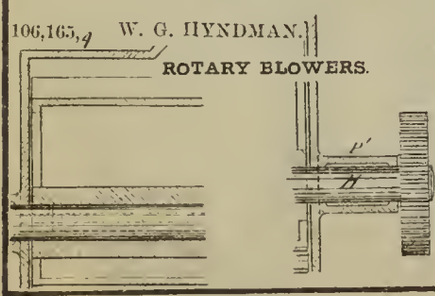
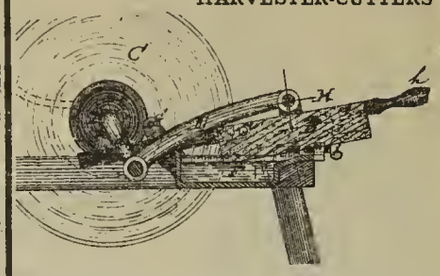
ROTARY BLOWERS.

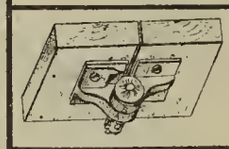


106,166, MARTIN V. INGERSOLL.
BILLIARD-CUES.

106,167, WILLIAM S. INGRAHAM.
MACHINE FOR SHARPENING HARVESTER-CUTTERS



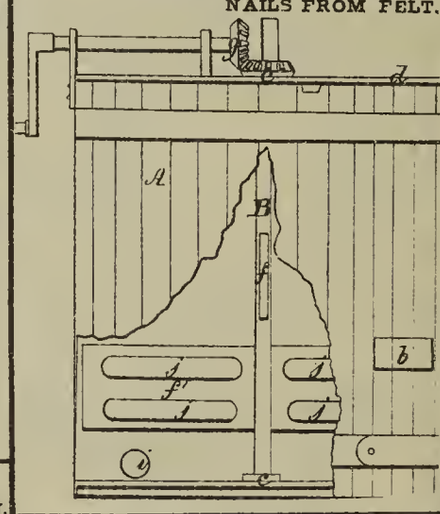
106,168.
W. A. IVES.
BUNG-BORER.



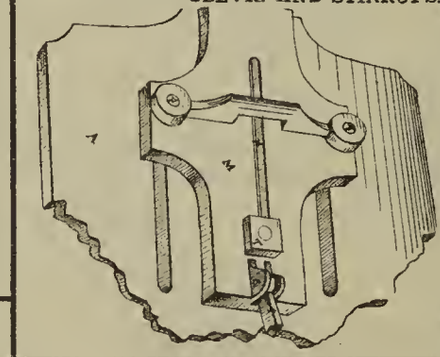
106,169,
WM. JOHNSON.
HINGES.

106,170,
FRANK B. JONES.
HINGES.

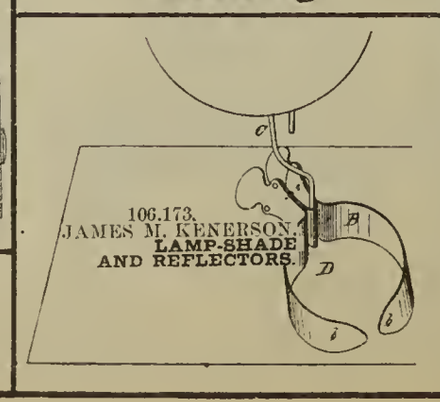
106,171, WILLIAM JONES.
PROCESS OF SEPARATING NAILS FROM FELT.

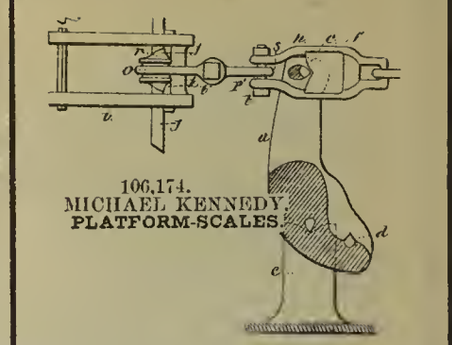


106,172, WILLIAM C. KAISER.
MACHINES FOR BENDING CLEVIS AND STIRRUPS.



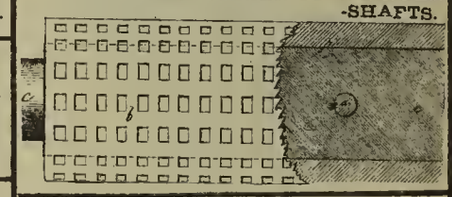
106,173.
JAMES M. KENERSON.
LAMP-SHADE AND REFLECTORS.



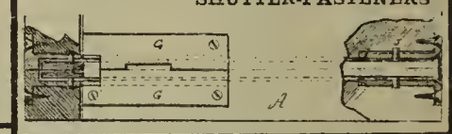


106,174.
MICHAEL KENNEDY.
PLATFORM-SCALES.

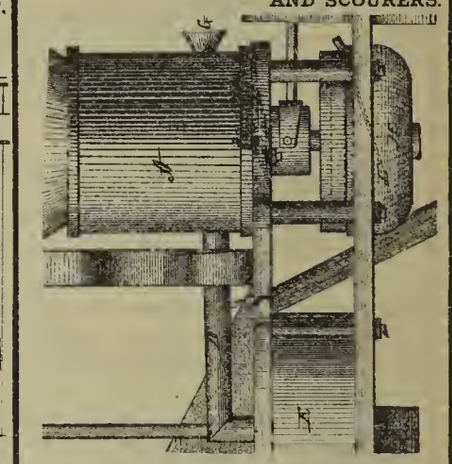
106,175, SILAS E. KENYON.
ATTACHING RUBBER TO WRINGER-SHAFTS.



106,176, JOHN W. KING.
SHUTTER-FASTENERS



106,177, W. C. KNOX.
GRAIN-SEPARATORS AND SCOURERS.



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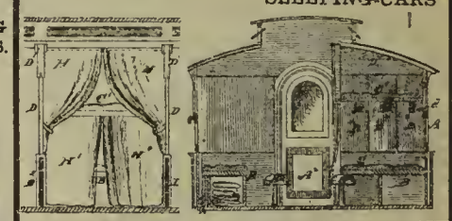
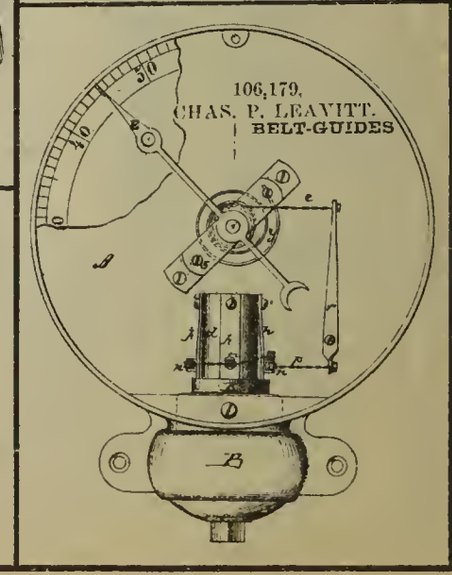
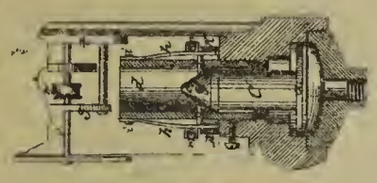
J. B. HILL.
SLEEPING-CARS



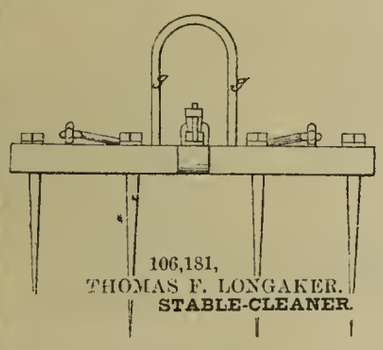
106,179,
CHAS. P. LEAVITT.
BELT-GUIDES



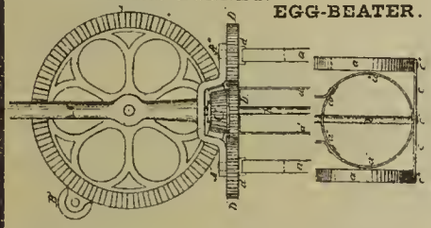
106,180, CHARLES LIEDKE. **PRESSURE-GAUGES.**



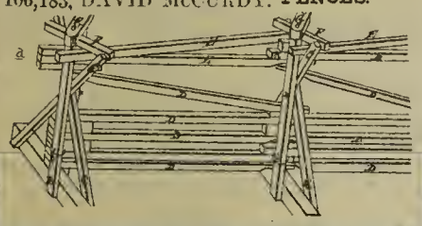
106,181, THOMAS F. LONGAKER. **STABLE-CLEANER.**



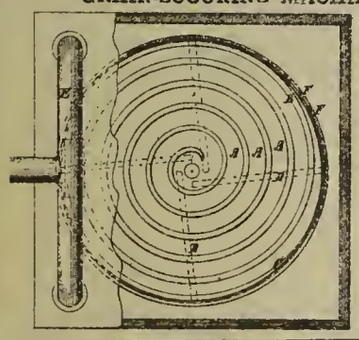
106,182, THOMAS MARSH. JAMES BERNEY. **EGG-BEATER.**



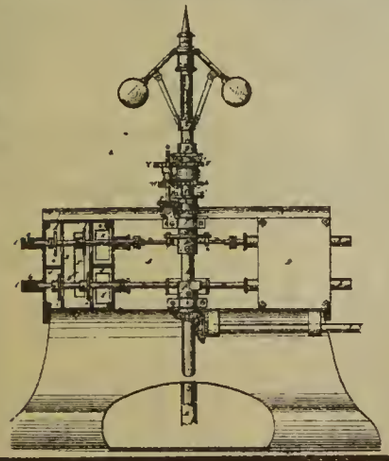
106,183, DAVID McCURDY. **FENCES.**



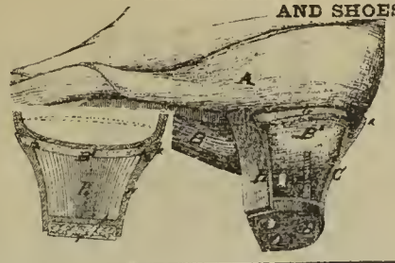
106,184, WILLIAM McLAUGHLIN. **GRAIN-SCOURING MACHINES.**



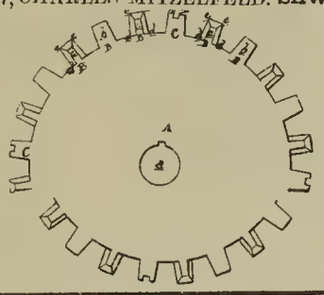
106,185, J. P. MERRIAM. **STEAM-ENGINE.**



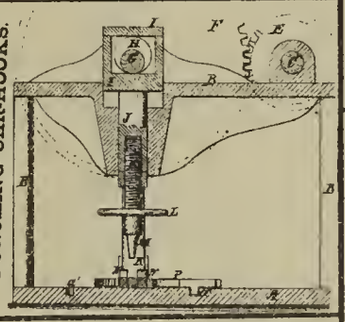
106,186, EDGAR T. MILLER. **METALLIC HEELS FOR BOOTS AND SHOES.**



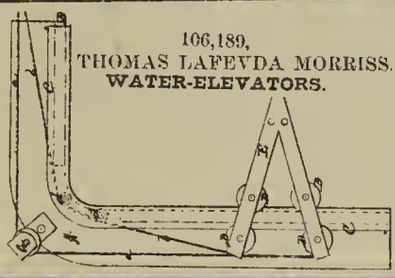
106,187, CHARLES MITZELFELD. **SAWS.**



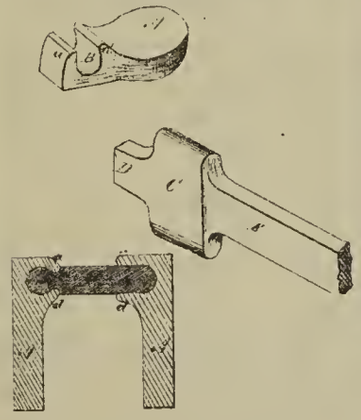
106,188, DAVID G. MORRIS. **MACHINES FOR BENDING AND PUNCHING CAR-HOOKS.**



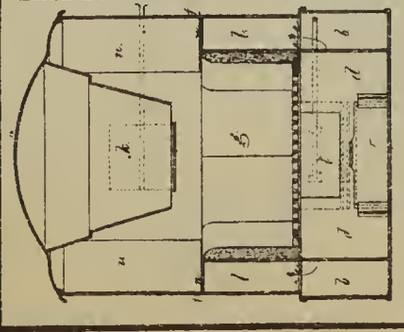
106,189, THOMAS LAFEVDA MORRISS. **WATER-ELEVATORS.**



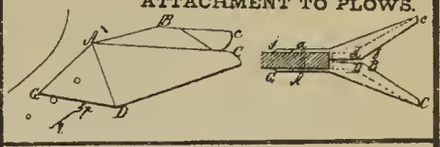
106,190, F. B. MORSE. **PROCESS OF FORGING CARRIAGE-SHACKLES.**



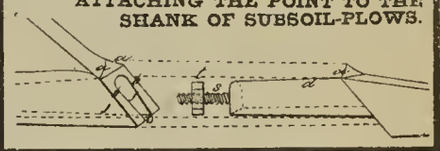
106,191, ANDREW MURDOCK. **BASE-BURNING FIRE-PLACE HEATER.**



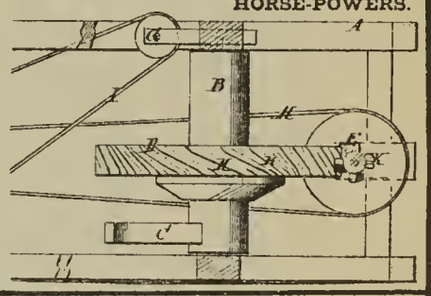
106,192, JAS. W. MURFEE. **ATTACHMENT TO PLOWS.**



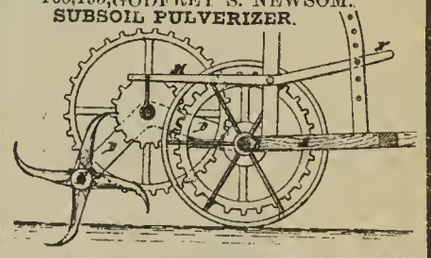
106,193, JAS. W. MURFEE. **ATTACHING THE POINT TO THE SHANK OF SUBSOIL-PLOWS.**



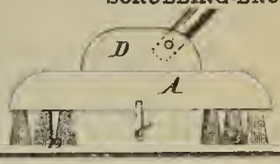
106,194, JAMES W. MURRELL. **HORSE-POWERS.**



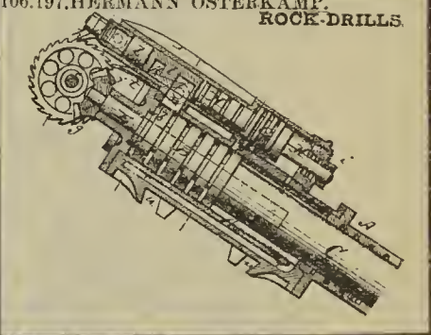
106,195, GODFREY S. NEWSOM. **SUBSOIL PULVERIZER.**



106,196, JACOB ODELL. **SCRUBBING-BRUSH.**

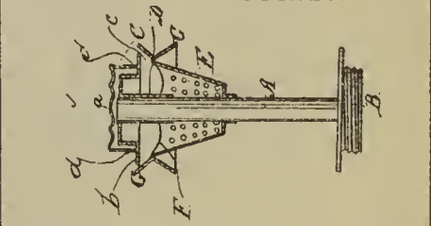


106,197, HERMANN OSTERKAMP. **ROCK-DRILLS.**

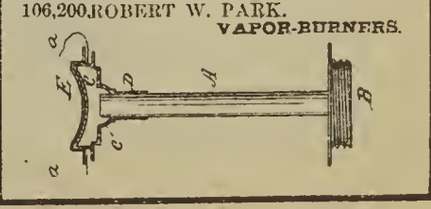


106,198, CHARLES F. PANKNIN. **INK.**

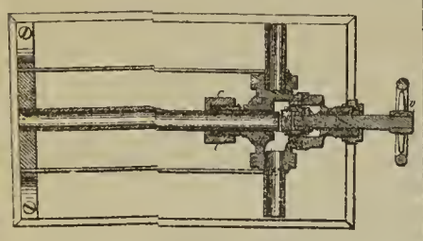
106,199, ROBERT W. PARK. **VAPOR-BURNERS.**



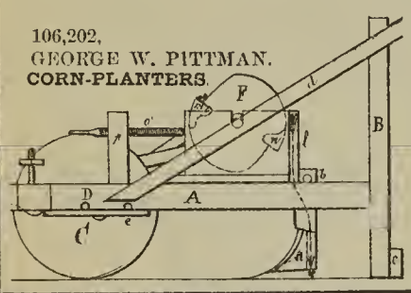
106,200, ROBERT W. PARK. **VAPOR-BURNERS.**



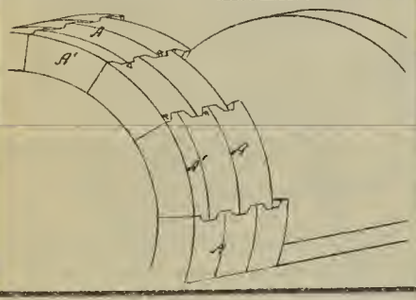
106,201, E. LAMSON PERKINS.
J. H. MOULTON.
CHAS. E. SAWYER.
STEAM-TRAPS.



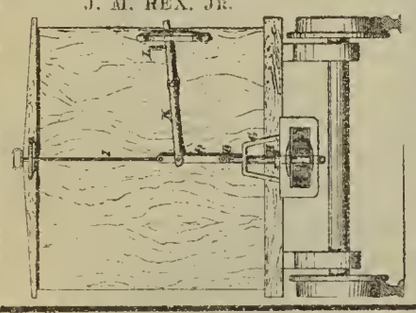
106,202,
GEORGE W. PITTMAN.
CORN-PLANTERS.



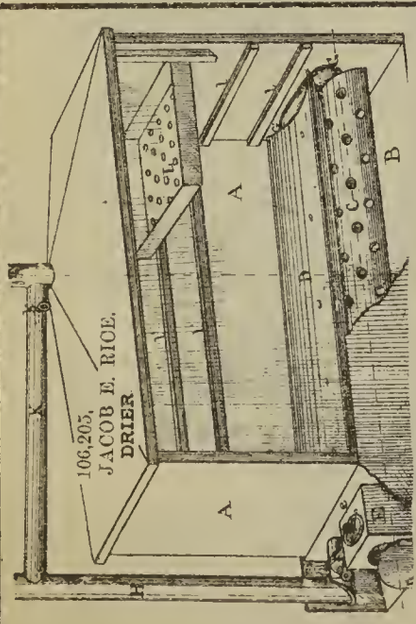
106,203, WATSON F. QUINBY.
ARCHING-BRICKS.



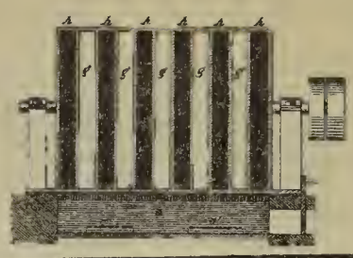
106,204, W. A. REX.
J. M. REX, JR.
CAR-COUPLING.



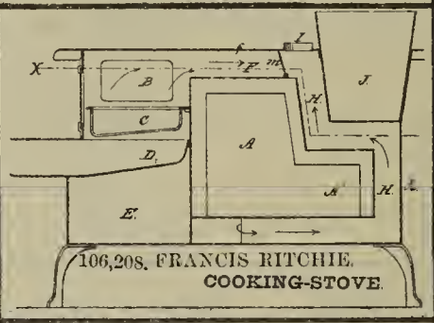
106,205,
JACOB E. RICE.
DRIER.



106,206, PETER J. RICE.
DAVID A. SCOTT.
AIR-HEATING STEAM-CONDENSERS.

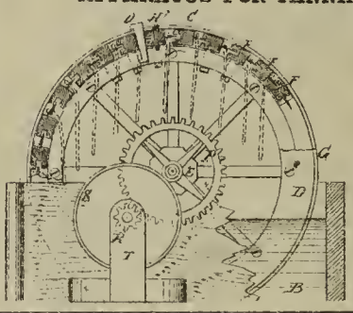


106,207, SAMUEL G. RICE.
MODE OF TREATING TOBACCO.

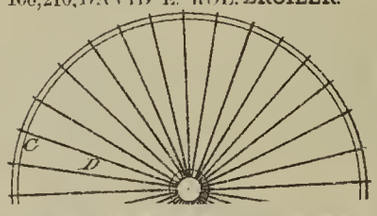


106,208, FRANCIS RITCHIE.
COOKING-STOVE.

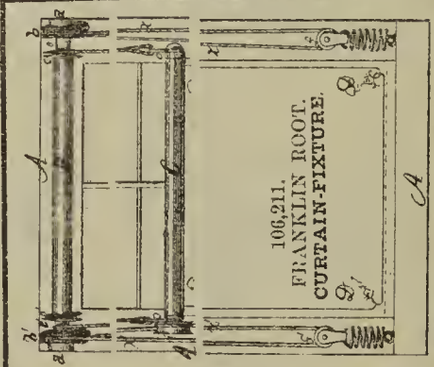
106,209, JOHN ROBINSON.
SAMUEL F. ROBINSON.
CHRISTOPHER C. PUTNAM.
APPARATUS FOR TANNING.



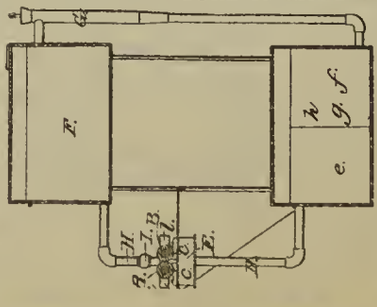
106,210, DAVID E. ROE. **BROILER.**



106,211,
FRANKLIN ROOT.
CURTAIN-FIXTURE.

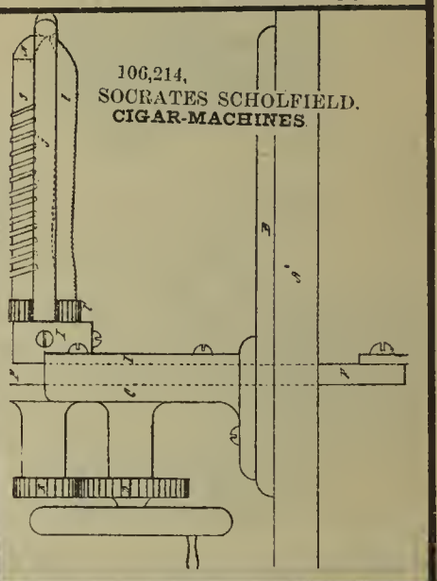


106,212, EBENEZER ROWE.
APPARATUS FOR COOLING THE ROLLERS USED IN THE MANUFACTURE OF ISINGLASS.

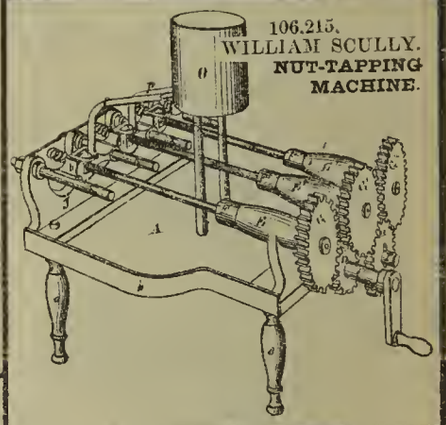


106,213, ARTHUR SAUER.
GUSTAVE SAUER.
LÉONCE CACHAL.
LIQUID FOR RAISING PASTE OR DOUGH.

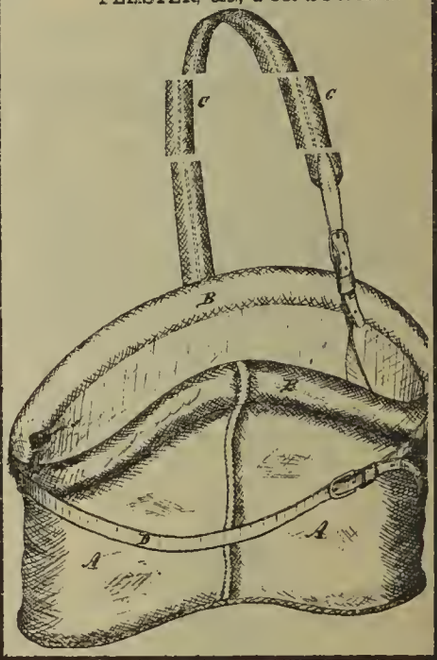
106,214,
SOCRATES SCHOLFIELD.
CIGAR-MACHINES.



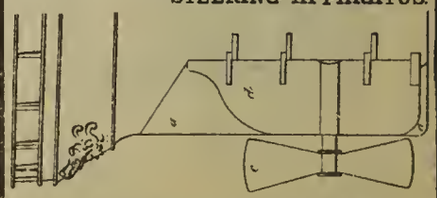
106,215,
WILLIAM SCULLY.
NUT-TAPPING MACHINE.



106,216, ORSON W. SMITH.
APPARATUS FOR CARRYING GRAIN PLASTER, &c., FOR SOWING.



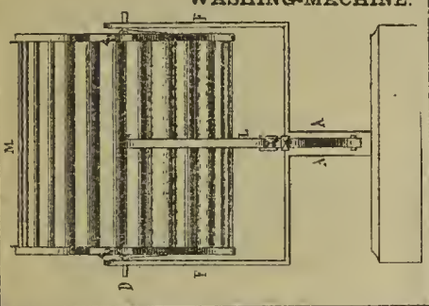
106,217, GEORGE SEYMOUR.
STEERING APPARATUS.

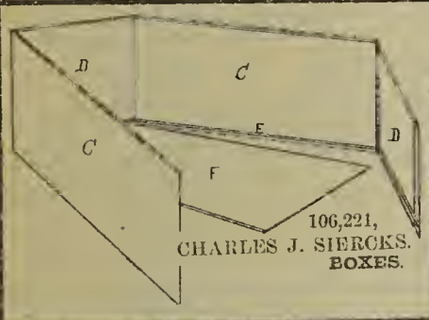


106,218, EPHRAIM SHAW.
MITERING-MACHINE.

106,219, JAMES SHAW.
COMPOSITION FOR OILING WOOL.

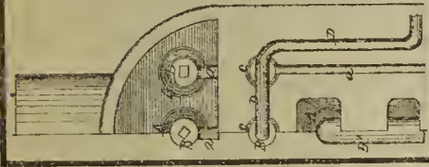
106,220, MORRILL A. SHEPARD.
WASHING-MACHINE.



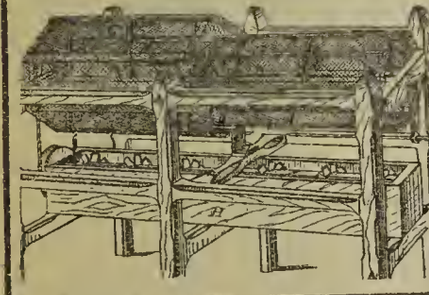


106,221,
CHARLES J. SIERCKS.
BOXES.

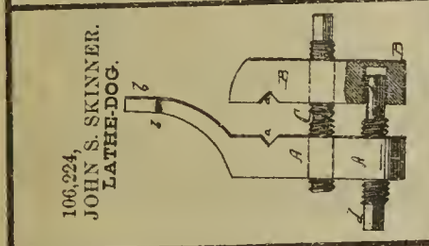
106,222, E. B. SINTZENICH.
STEAM-GENERATORS.



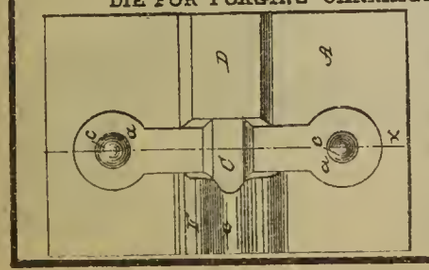
106,223, JOHN SKINNER. FLOUR-BOLTS.



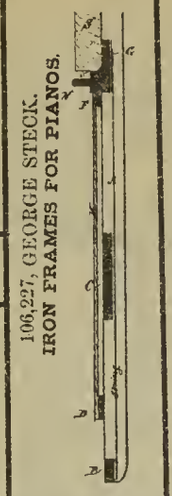
106,224,
JOHN S. SKINNER.
LATHE-DOG.



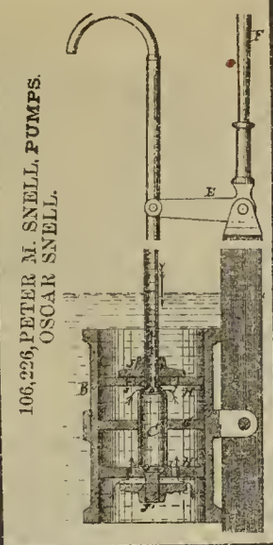
106,225, WILLIS B. SMITH.
SHACKLE-BLANKS.
DIE FOR FORGING CARRIAGE



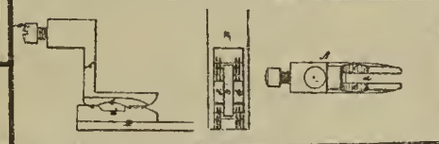
106,227, GEORGE STECK.
IRON FRAMES FOR PIANOS.



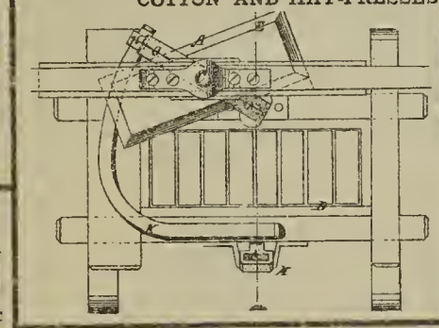
106,226, PETER M. SNELL, PUMPS.
OSCAR SNELL.



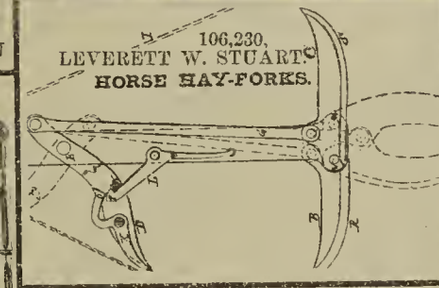
106,228, CHAS. M. STOCKER.
FEEDING DEVICE AND PRESSER-FOOT
FOR SEWING-MACHINES.



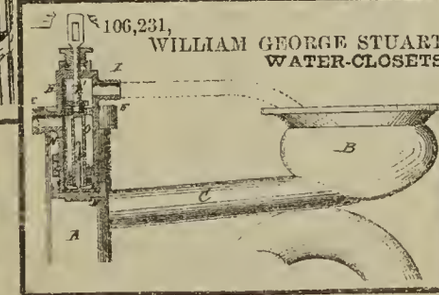
106,229, C. W. STOPPLE.
COTTON AND HAY-PRESSES.



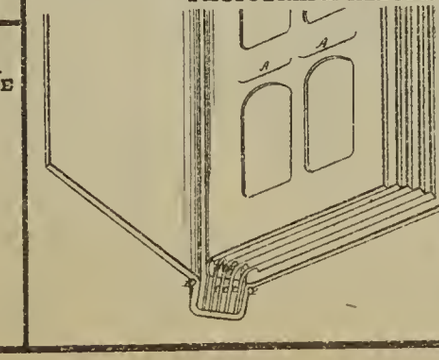
106,230,
LEVERETT W. STUART.
HORSE HAY-FORKS.



106,231,
WILLIAM GEORGE STUART.
WATER-CLOSETS.

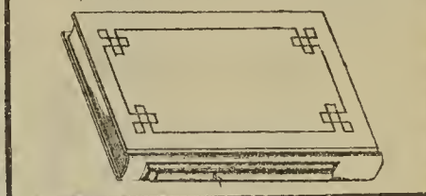


106,232, J. F. TAPLEY.
PHOTOGRAPH ALBUMS

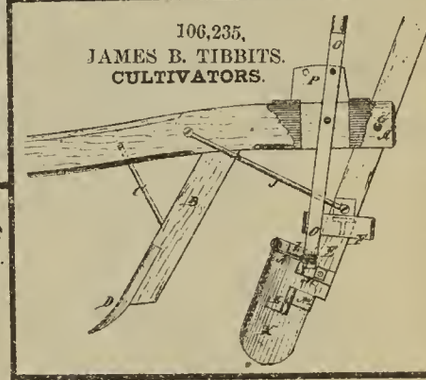


106,233. J. A. TATRO.
REFINING PETROLEUM.

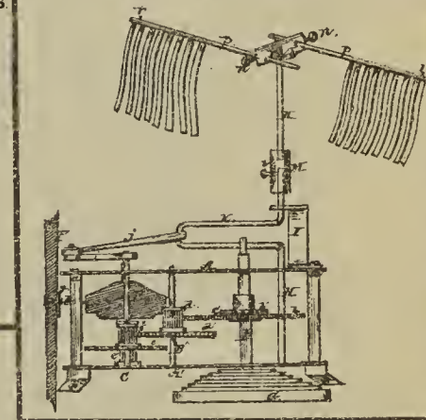
106,234, JABEZ C. TERRY. BOOK-BINDING.



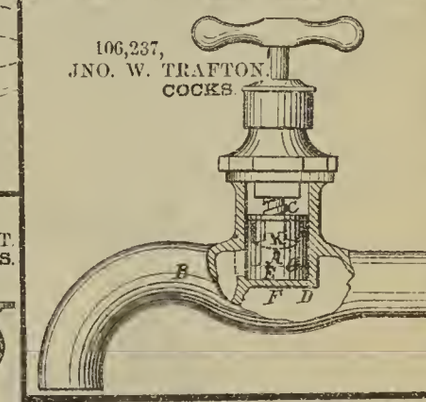
106,235,
JAMES B. TIBBITS.
CULTIVATORS.



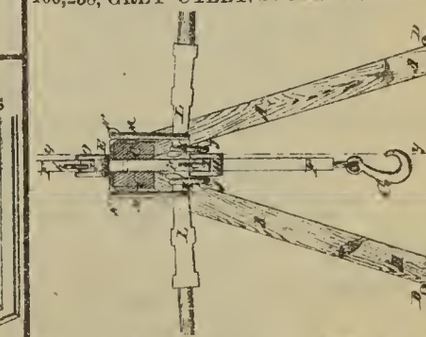
106,236, R. E. TOLAR.
W. D. ORR.
AUTOMATIC TABLE-FAN OR BRUSH.



106,237,
JNO. W. TRAFTON.
COCKS.

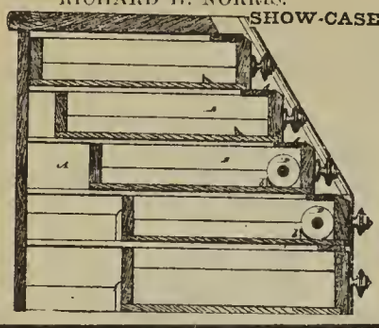


106,238, GREY UTLEY. STUMP-PULLER.

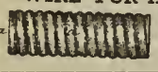


106,239, JOSEPH P. WADDELL.
MEDICAL COMPOUND OR PILL.

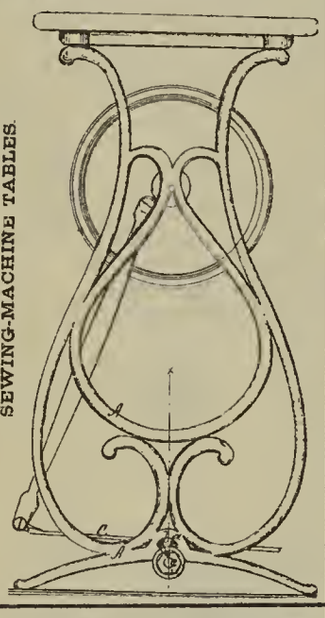
106,240, EDWARD WATSON.
RICHARD H. NORRIS.
SHOW-CASES.



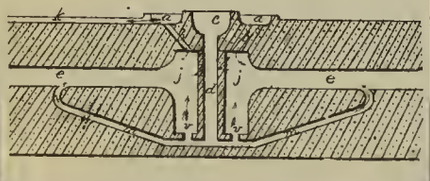
106,241, WILLIAM WICKERSHAM.
WIRE FOR ATTACHING SOLES TO BOOTS AND SHOES.



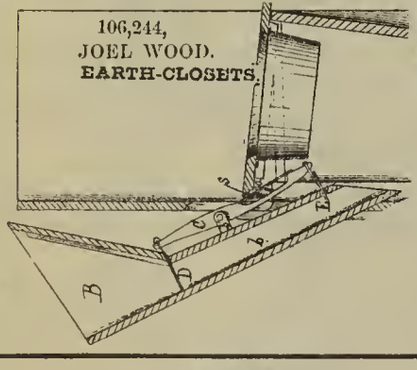
106,242,
CHAS. H. WILLCOX.
SEWING-MACHINE TABLES.



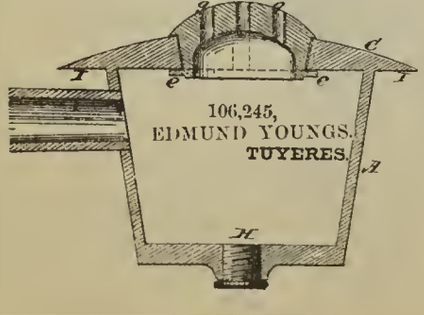
106,243, WM. WILMINGTON. CAST-IRON CAR-WHEELS.



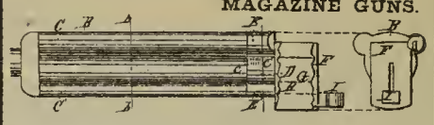
106,244,
JOEL WOOD.
EARTH-CLOSETS.



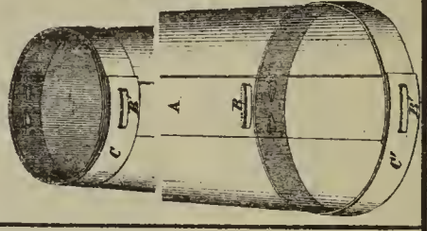
106,245,
EDMUND YOUNGS.
TUYERES.



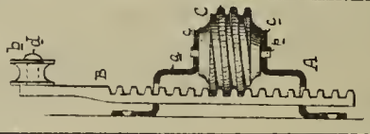
106,246, NATHAN H. AMBLER.
MAGAZINE GUNS.



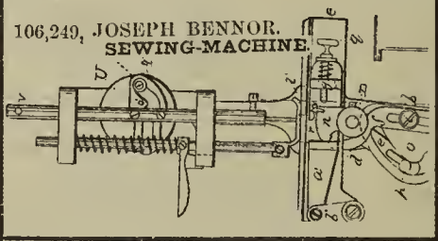
106,247, JOHN BAIRD.
WARREN FISHER.
MICA CHIMNEYS FOR LAMPS.



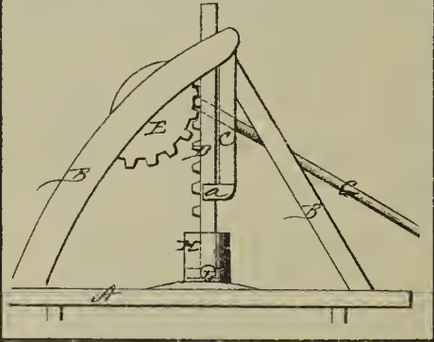
106,248, WILLIAM HENRY BECHTEL.
SHADE-CORD RETAINER.



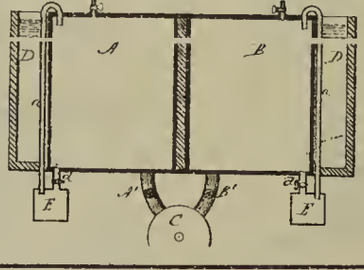
106,249, JOSEPH BENNOR.
SEWING-MACHINE.



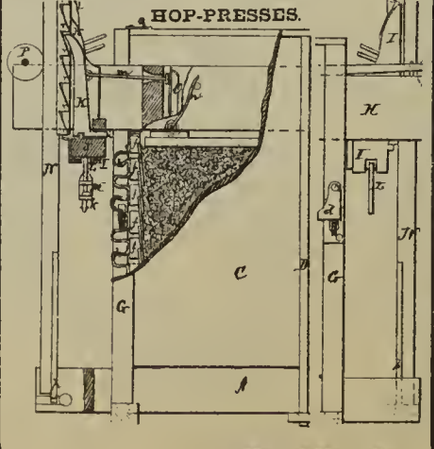
106,250, ABNER BISHOP.
SAUSAGE-STUFFER AND LARD-PRESS.



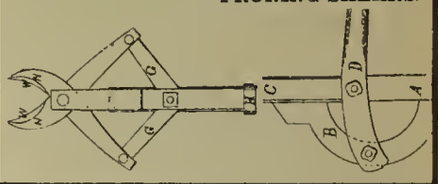
106,251, EDWARD S. BOYNTON.
PROCESS OF FORMING VACUUM IN FREEZING APPARATUS.



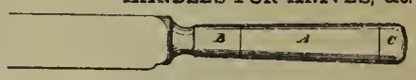
106,252, JEREMIAH BROCKWAY.
HOP-PRESSES.



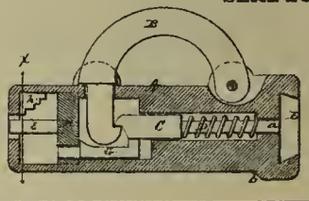
106,253, RANSOM BULLARD.
GEORGE E. MILLS.
PRUNING-SHEARS.



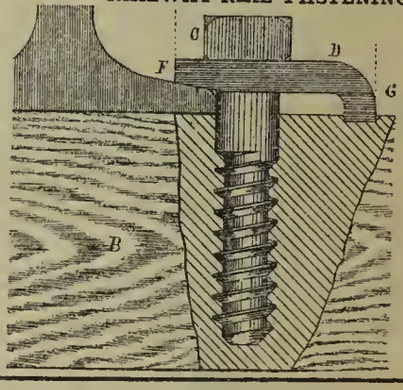
106,254, MATTHEW CHAPMAN.
HANDLES FOR KNIVES, &c.



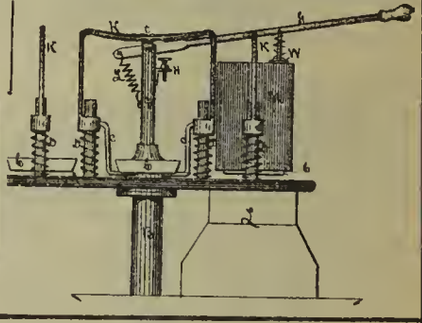
106,255, EVERETT CLEMONS.
SEAL-LOCKS.



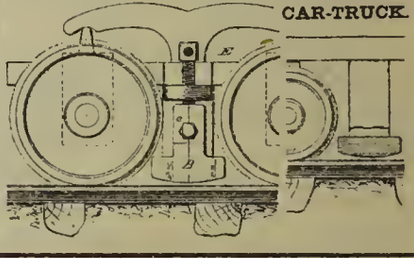
106,256, JOHN COCHRANE.
RAILWAY-RAIL FASTENING.



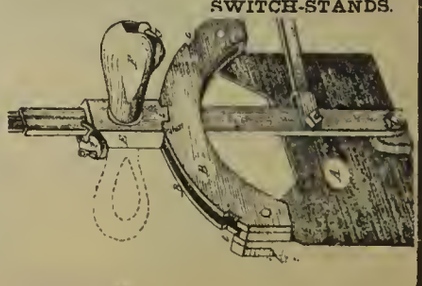
106,257, E. T. COVELL.
MACHINES FOR SOLDERING METALLIC VESSELS



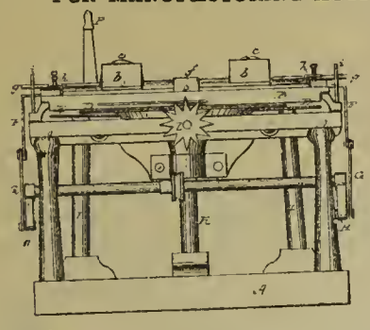
106,258, JOHN S. CRARY.
SAFETY-SHOE FOR RAILWAY CAR-TRUCK.



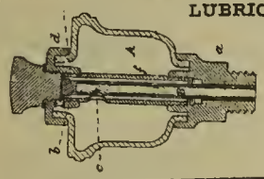
106,259, CHARLES C. DODGE.
SWITCH-STANDS.



106,260, JOHN B. DOUGHERTY. MACHINE FOR MANUFACTURING HOOPS.



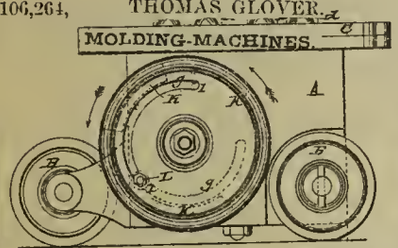
106,261, ISIDORE DREYFUS. LUBRICATORS.



106,262, JOHN G. FINE. TOY.

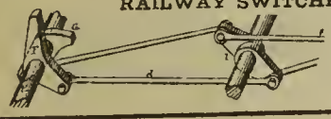
106,263. G. A. FREAR. MANUFACTURE OF ARTIFICIAL MARBLE.

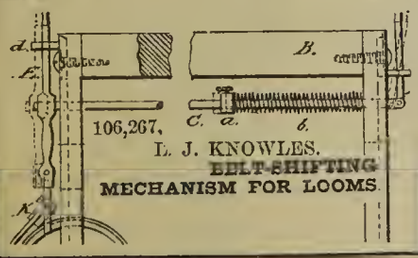
106,264, THOMAS GLOVER. MOLDING-MACHINES.



106,265. WILLIAM H. HAWLEY. CORES FOR CASTING AXLE-BOXES.

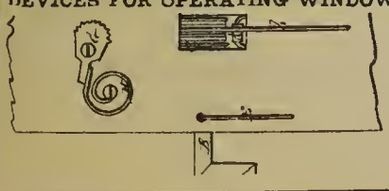
106,266, JAMES P. HERRON. RAILWAY SWITCHES.



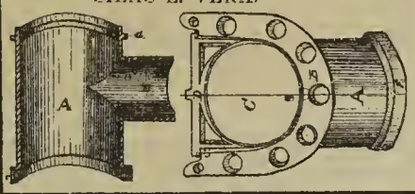


106,267, L. J. KNOWLES. BELT-SHIFTING MECHANISM FOR LOOMS.

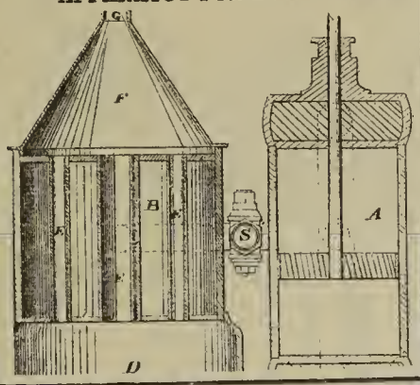
106,268, JAMES S. LESTER. DEVICES FOR OPERATING WINDOWS.



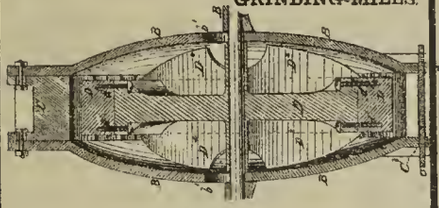
106,269, WM. P. LEWIS. SILAS L. VERA. STOVE-PIPES.



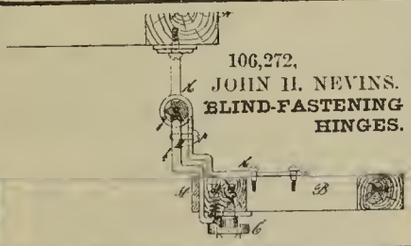
106,270, NORMAN R. MARTIN. APPARATUS FOR EVAPORATING.



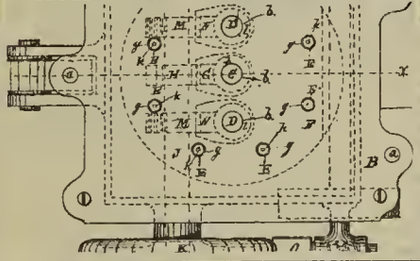
106,271, GOVE MITCHELL. GRINDING-MILLS.



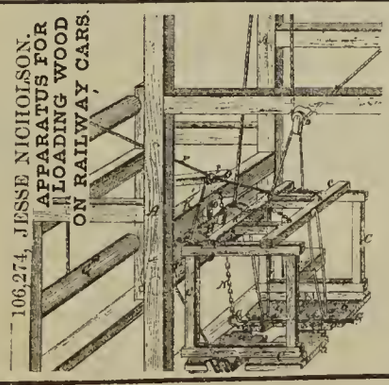
106,272, JOHN H. NEVINS. BLIND-FASTENING HINGES.



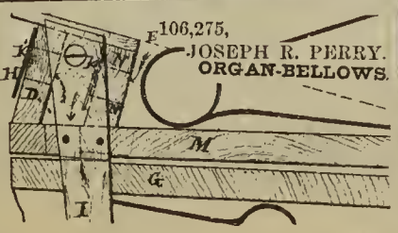
106,273, WILLIAM NEWSHAM. MOLDING AND VENTING-MACHINE.



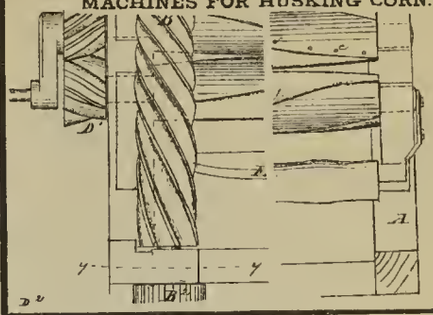
106,274, JESSE NICHOLSON. APPARATUS FOR LOADING WOOD ON RAILWAY CARS.



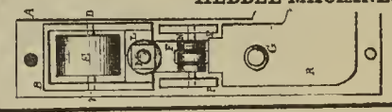
106,275, JOSEPH R. PERRY. ORGAN-BELLOWS.



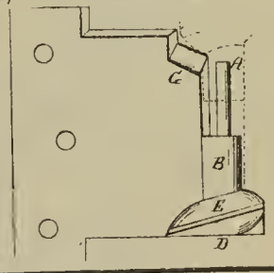
106,276, PETER PHILIP. MACHINES FOR HUSKING CORN.



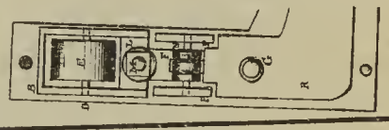
106,277, PETER PHILIP. HEDDLE-MACHINES.



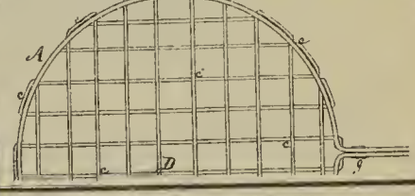
106,278, JOHN PLANT. HINGES.



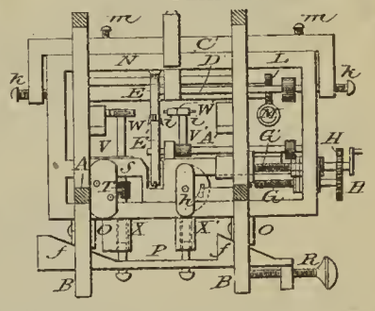
106,279. JAMES A. PRINTZ. SASH-HOLDERS.



106,280, JAMES T. PAGE. BROILER.



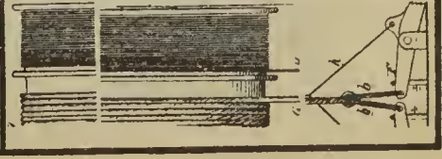
106,281, GEORGE T. PEARSALL. PLANING-MACHINE.



106,282, LEMAN B. PITCHER. PREPARATION OF LIME AND MORTAR.

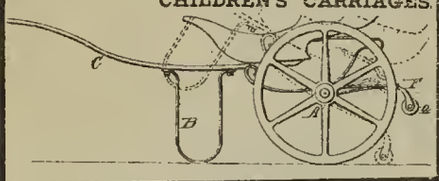
106,283, PETER PLAMONDON. MILLSTONE-BEARINGS.

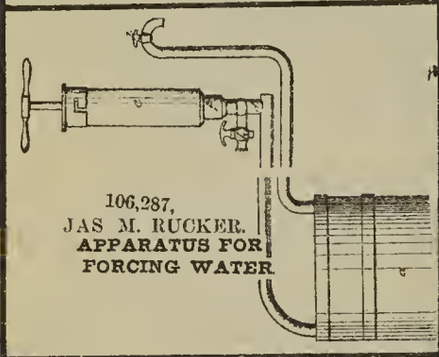
106,284, THOS. POLLARD. HOISTING APPARATUS.



106,285, ELIAS PROPST. BOOK-HOLDERS.
JAMES F. AVIS.

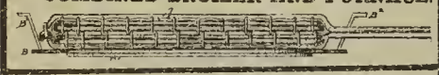
106,286,
GÜNTHER FRIDRICH C ROSENTHAL.
CHILDREN'S CARRIAGES.



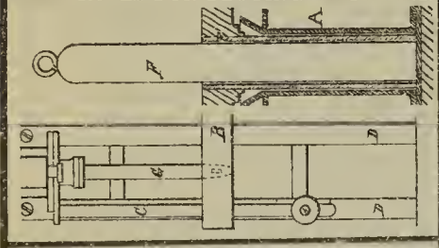


106,287,
JAS M. RUCKER.
APPARATUS FOR
FORCING WATER.

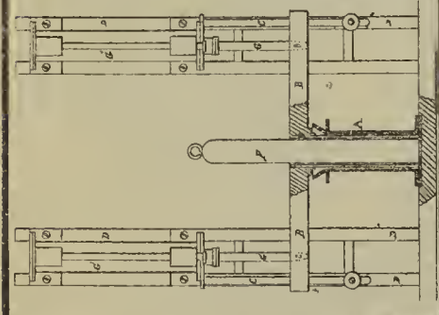
106,288, JOHN S. RUNYAN.
COMBINED BROILER AND FURNACE.



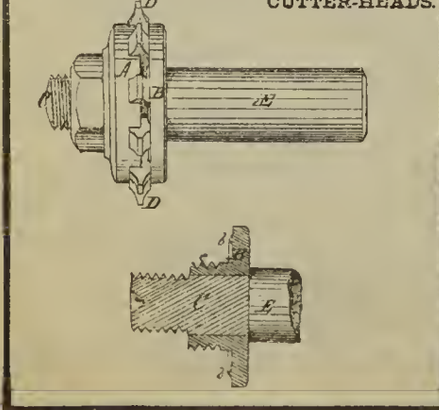
106,289, HENRY SAUERBIER.
ROLLS FOR FLUTING-MACHINES.



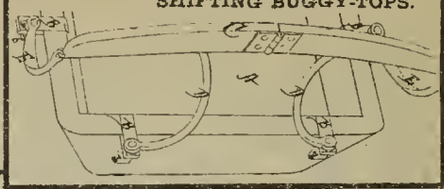
106,290, ROBERT SKINNER.
RICHARD GAINES.
MACHINES FOR THE MANUFACTURE
OF COMPOSITION PIPES FOR
DRAINAGE.



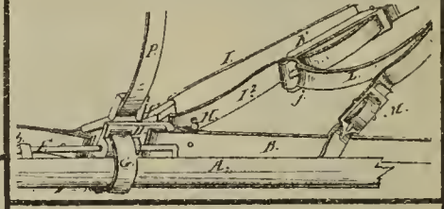
106,291, GEORGE E. SOMERS.
CUTTER-HEADS.



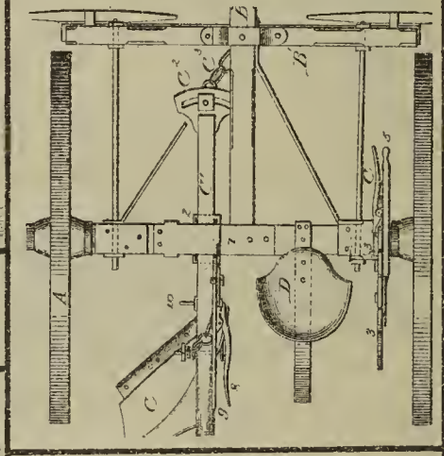
106,292, GEORGE STRICKER.
SHIFTING BUGGY-TOPS.



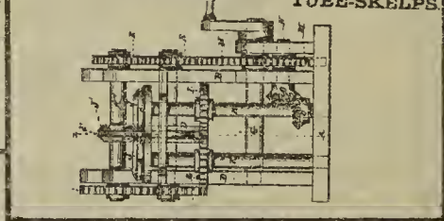
106,293, GEORGE SWITZER.
ATTACHING AND DETACHING
HORSES FROM VEHICLES.



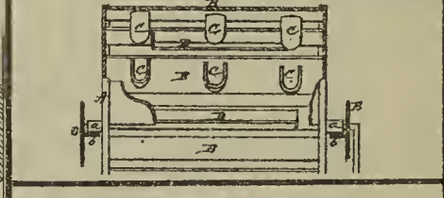
106,294, JOHN E. SWALLOW.
WHEEL PLOWS.

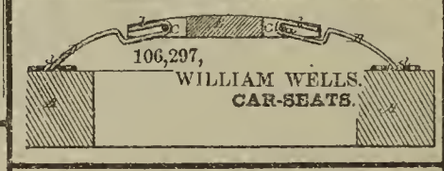


106,295, STEPHEN P. M. TASKER.
MACHINES FOR BENDING
TUBE-SKELPS.



106,296, WILLIAM H. WELCH.
WASHING-MACHINES.

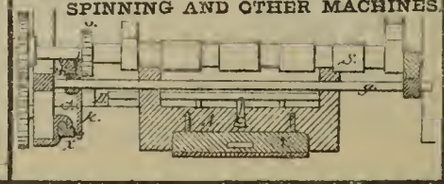




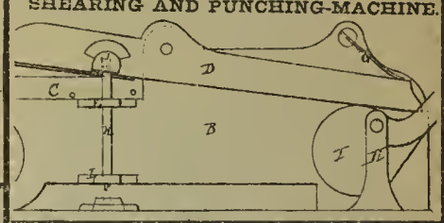
106,297,
WILLIAM WELLS.
CAR-SEATS.

106,298,
WILLIAM WELLS.
BOX OR CASE
FOR HOT-BEDS.

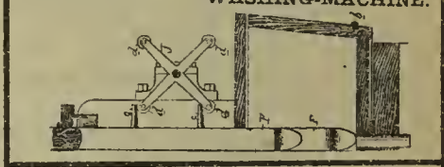
106,299, SAMUEL B. WESTCOTT.
STOPPING MECHANISM FOR
SPINNING AND OTHER MACHINES.



106,300, JOSIAH C. WILCOX.
SHEARING AND PUNCHING-MACHINE.

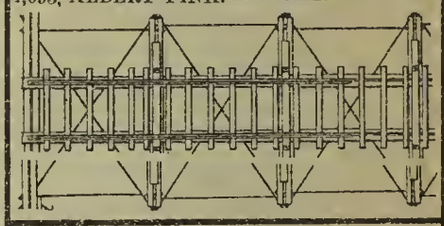


106,301, JOSEPH BEARFORD WILSON.
WASHING-MACHINE.

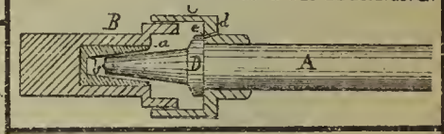


4,092, SAMUEL LEEDS ALLEN.
PLANTING-MACHINE.

4,093, ALBERT FINK. BRIDGES.

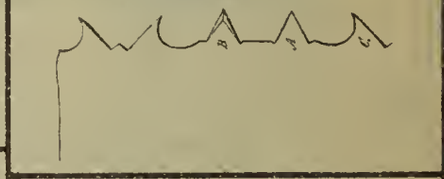


4,094, A. H. GILMAN.
SPINDLES FOR SPINNING.

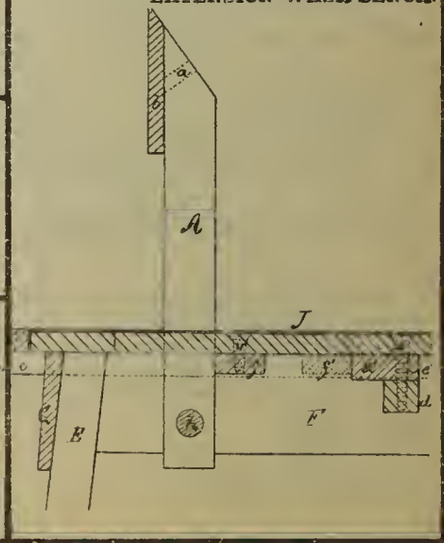


4,095,
FERDINAND LEROY, ADMINISTRATOR,
AND P. A. VICTOR LE LUBEZ,
ASSIGNEE OF FERDINAND LEROY,
DECEASED,
COMPOSITION FOR COVERING
STEAM-BOILERS AND FOR OTHER
PURPOSES.

4,096, ELISHA P. WHEELER. SAWS.
EDWARD M. MADDEN.
WM. CLEMSON.



4,097, SAMUEL WISWALL.
EXTENSION WASH-BENCH.



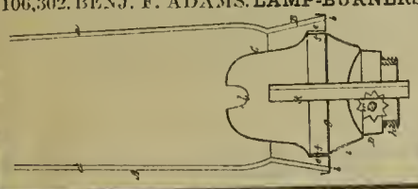
ILLUSTRATIONS OF PATENTS

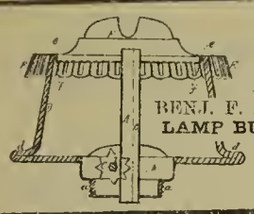
ISSUED FROM

THE UNITED STATES PATENT OFFICE

AUGUST 16, 1870.

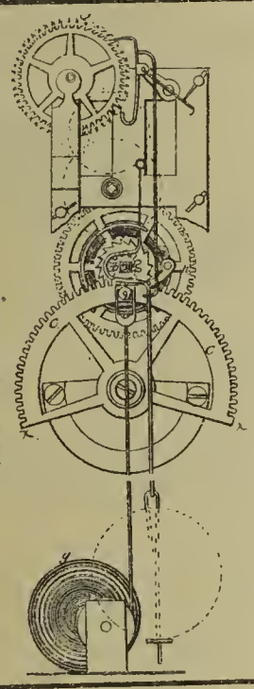
106,302. BENJ. F. ADAMS. LAMP-BURNERS



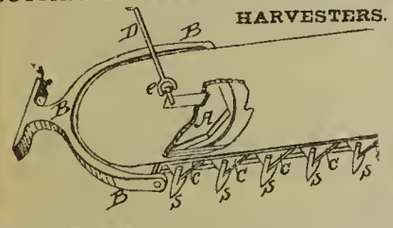


106,303, BENJ. F. ADAMS. LAMP BURNER.

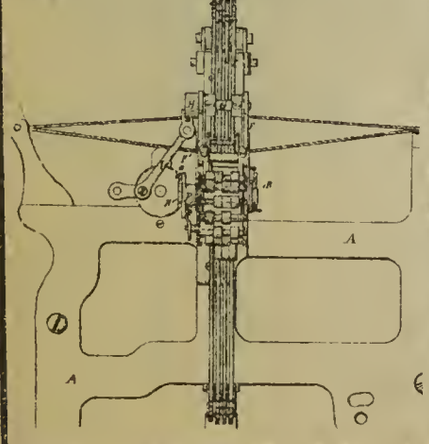
106,304, JOHN P. ADAMS. EQUALIZING THE MAINSPRING OF TIME-PIECES.



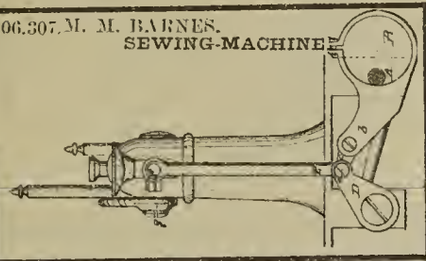
106,305 H. C. AYDELOTT. CUTTING APPARATUS FOR HARVESTERS.



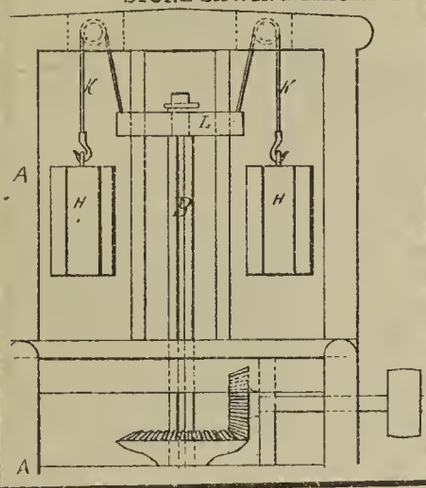
106,306. JOHN ASHWORTH. HARNESS-OPERATING MECHANISM FOR LOOMS.



106,307. M. M. BARNES. SEWING-MACHINE.



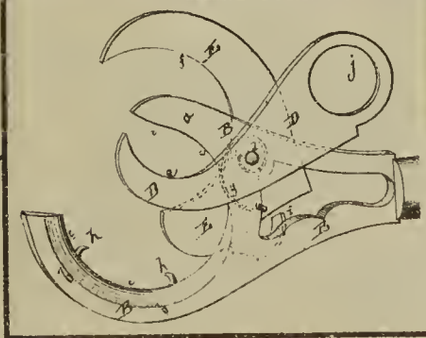
106,308. CHARLES BATEMAN. STONE-SAWING MACHINE.



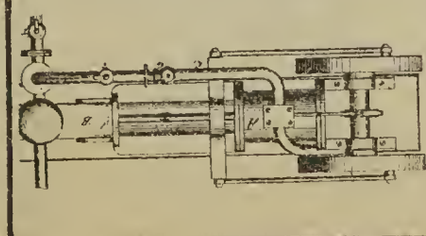
106,309. MILTON BENNET. TOP PLATE OF COOKING-STOVES.

106,310, HIRAM BIGELOW. CHISEL FOR CUTTING GAINS.

106,311, SAML. L. BLIGH. HAND CORN-HUSKER.

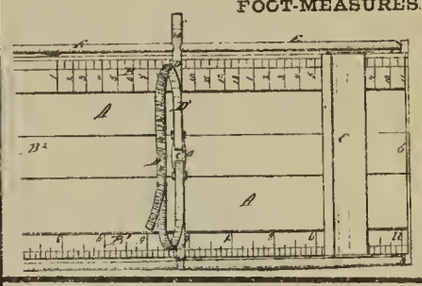


106,312, THOMAS E. BLUNT. STEAM PUMPING-ENGINES.

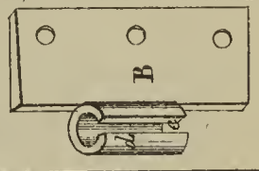


106,313, GUSTAVE BOURGADE. COMPOUND FOR FERTILIZER.

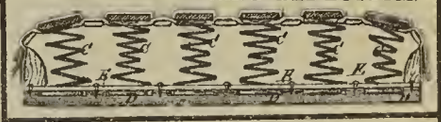
106,314, JOHN C. F. BREMSER. FOOT-MEASURES.



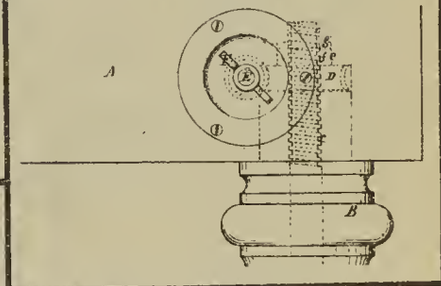
106,315, JOHN DAVID BROWNE. HINGES.



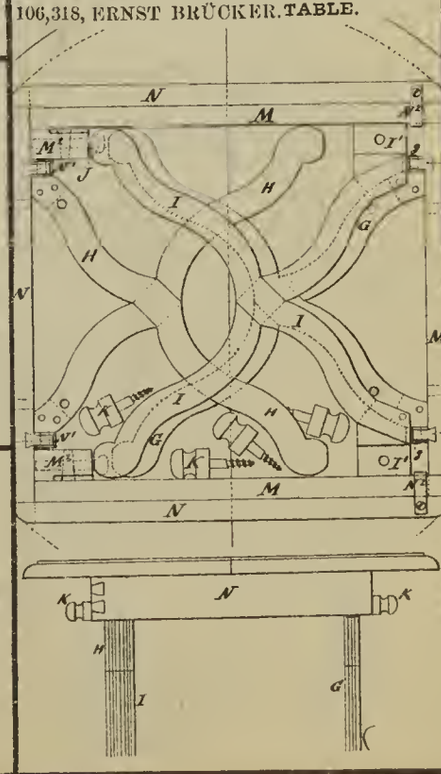
106,316, CHAS. T. BAADE. SPRING BED-BOTTOM.



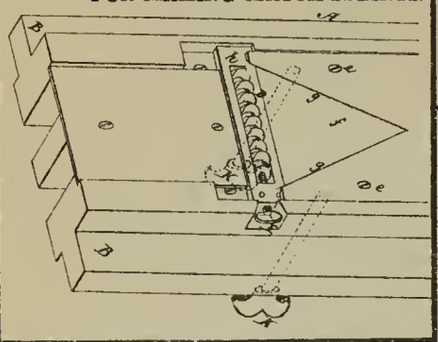
106,317, BUCKLAND W. BULL. DEVICE FOR LEVELING BILLIARD AND OTHER TABLES, &c.



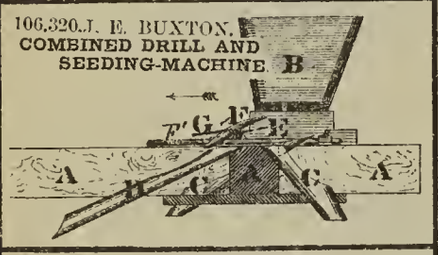
106,318, ERNST BRÜCKER. TABLE.



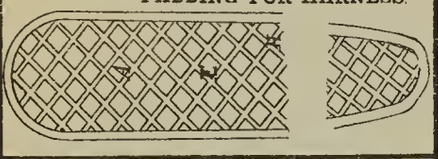
106,319, DENSLOW BURHANS, MACHINE FOR MAKING MATCH-SPLINTS.



106,320, J. E. BUXTON. COMBINED DRILL AND SEEDING-MACHINE.

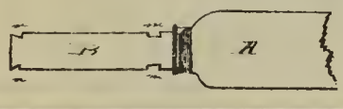


106,321, JAMES CORMAC. ALEXANDER STOBBS. PADDING FOR HARNESS.

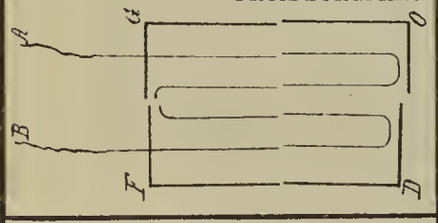


106,322, DUDLEY B. CHAPMAN. MANUFACTURE OF RESIN SOAP.

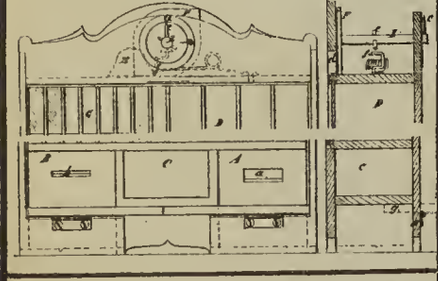
106,323, MATTHEW CHAPMAN. TABLE-KNIVES.



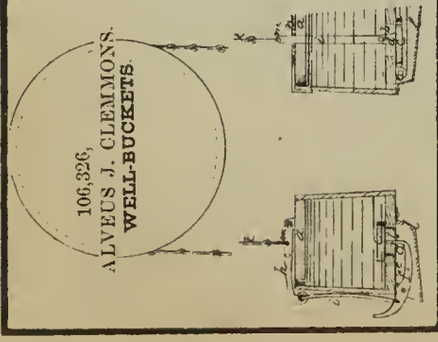
106,324, CHARLES T. CHESTER. PROTECTING SAFES AND VAULTS FROM BURGLARS.



106,325, WM. M. CLARK. ALEX. CLARK. POST-OFFICE CABINET FOR SUNDAY-SCHOOL AND OTHER ROOMS.

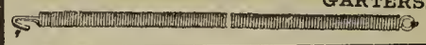


106,326, ALVEUS J. CLEMMONS. WELL-BUCKETS.

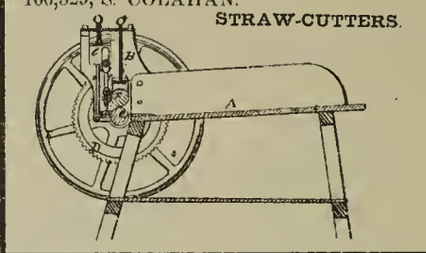


106,327, WILLIAM B. COATES. ROOFING-FELT.

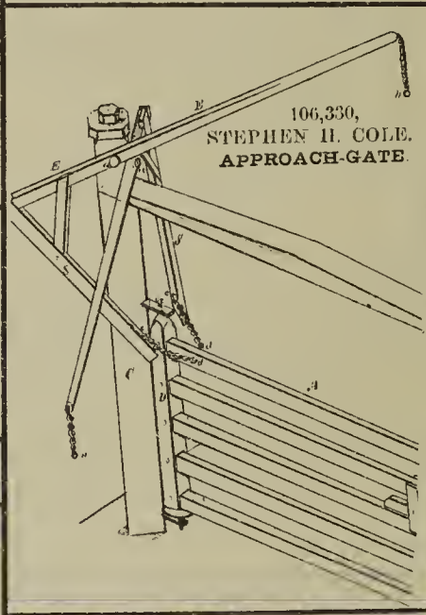
106,328, CHARLES COESTER, JR. JAS. L. MOORE. GARTERS.



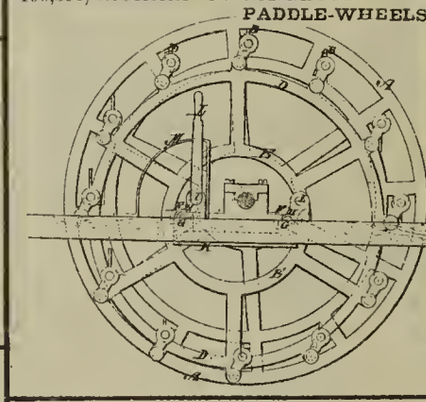
106,329, S. COLAHAN. STRAW-CUTTERS.



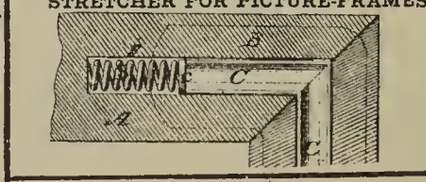
106,330, STEPHEN H. COLE. APPROACH-GATE.



106,331, RICHARD H. CONNELLY. PADDLE-WHEELS.

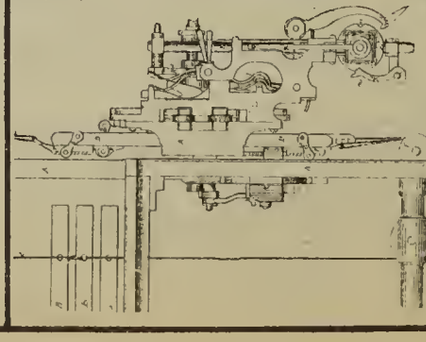


106,332, JOHN D. CROCKER. STRETCHER FOR PICTURE-FRAMES.



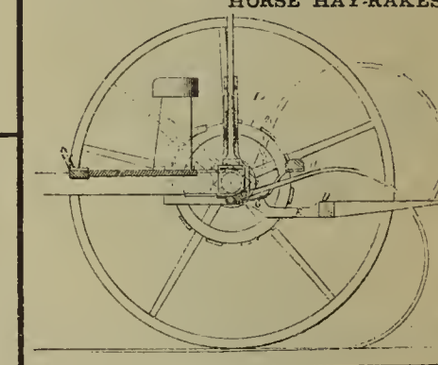
106,333, JOHN CUSHINGS. COMPOUND FOR CURE OF COUGHS, &c.

106,334, HILAS D. DAVIS. LOOMS.

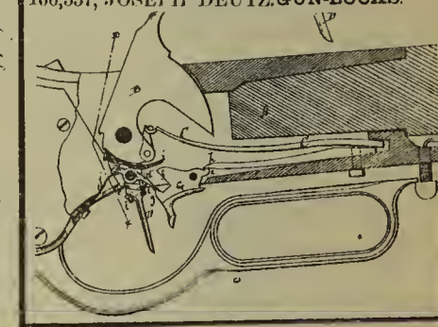


106,335, HILAS D. DAVIS. SHEAVES.

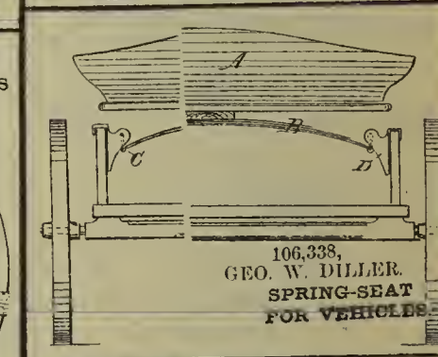
106,336, S. L. DENNEY. HORSE HAY-RAKES.



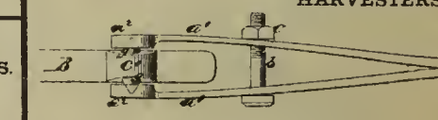
106,337, JOSEPH DEUTZ. GUN-LOCKS.



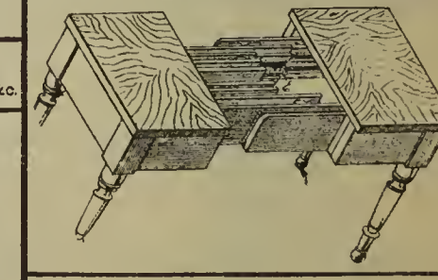
106,338, GEO. W. DILLER. SPRING-SEAT FOR VEHICLES.



106,339, JOSEPH DIXON. MATTHEW B. SAMPSON. PITMAN CONNECTIONS FOR HARVESTERS.

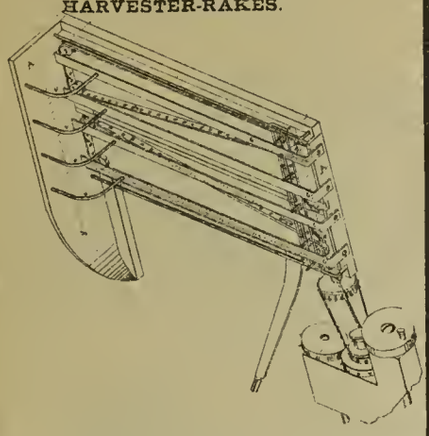


106,340, WILLIAM DONOGHUE. EXTENSION-TABLE SLIDE.

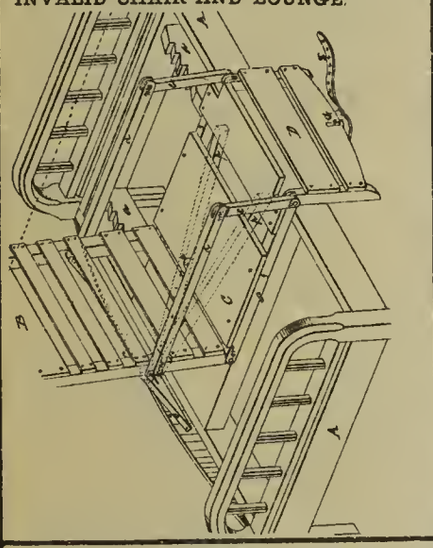


106,341, WILLIAM DUNCAN. HAMES FOR HARNESS.

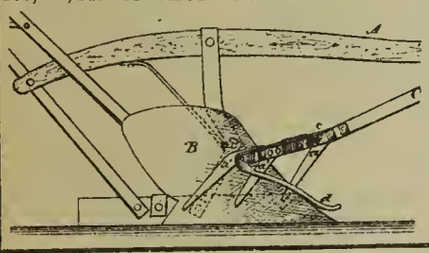
106,342, WILLIAM T. EASTES.
HARVESTER-RAKES.



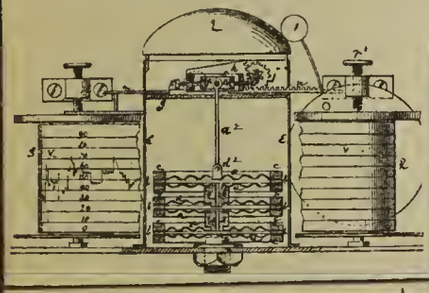
106,343, WILLIAM T. EASTES.
INVALID CHAIR AND LOUNGE.



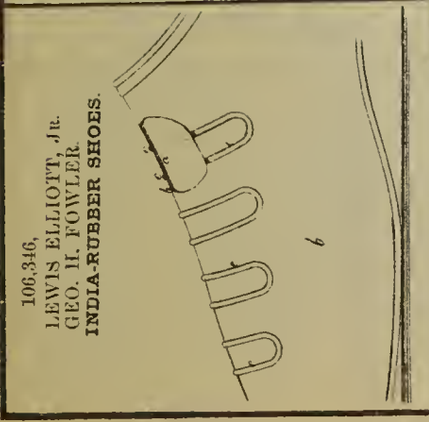
106,344, ISAAC EASTWOOD. PLOWS.

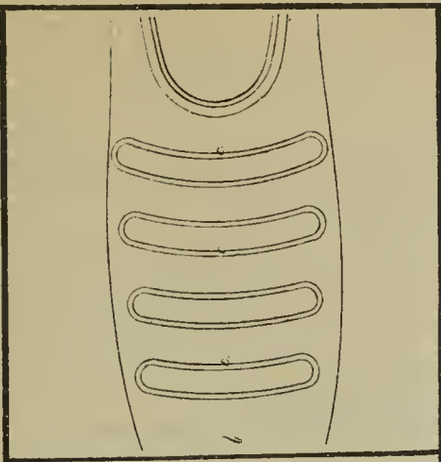


106,345, JARVIS B. EDSON.
RECORDING PRESSURE-GAUGES.

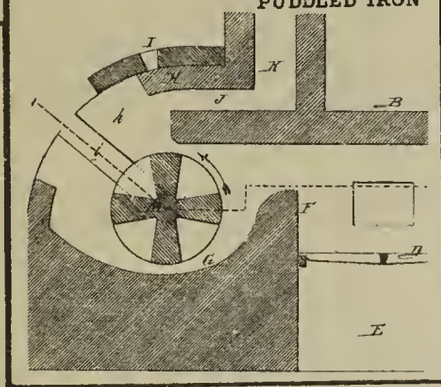


106,346,
LEWIS ELLIOTT, Jr.
GEO. H. FOWLER
INDIA-RUBBER SHOES.

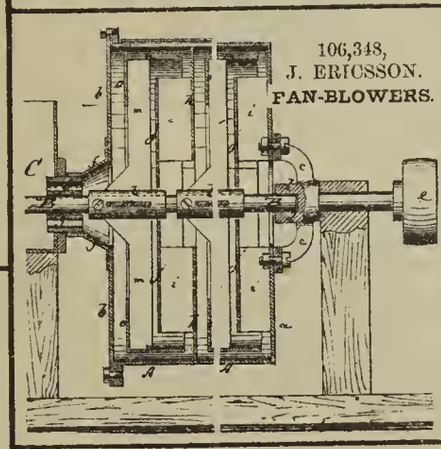




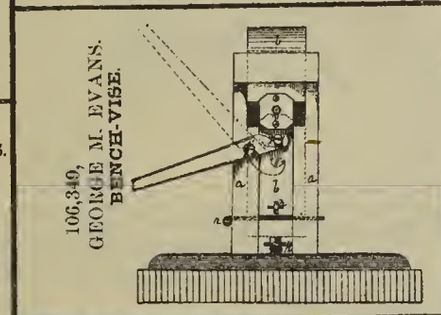
106,347, WILLIAM ENNIS.
MANUFACTURE OF WROUGHT AND PUDDLED IRON



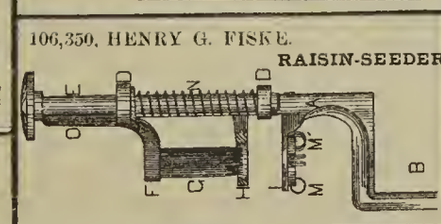
106,348,
J. ERICSSON.
FAN-BLOWERS.



106,349,
GEORGE M. EVANS.
BENCH-VISE.



106,350, HENRY G. FISKE.
RAISIN-SEEDER



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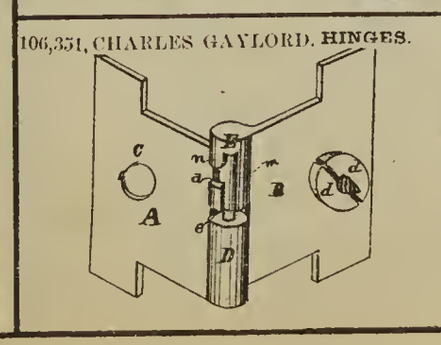
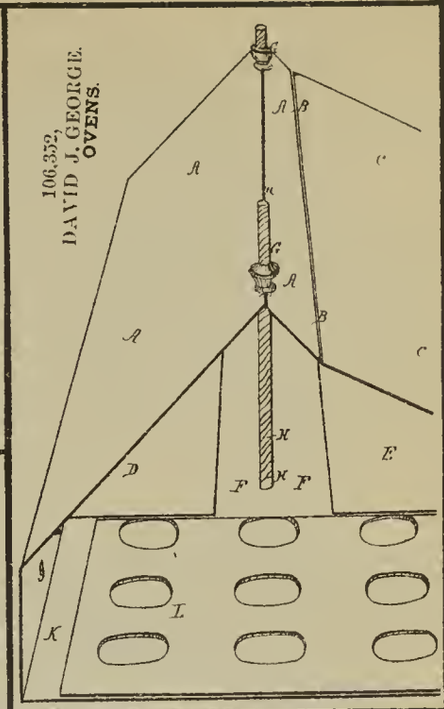
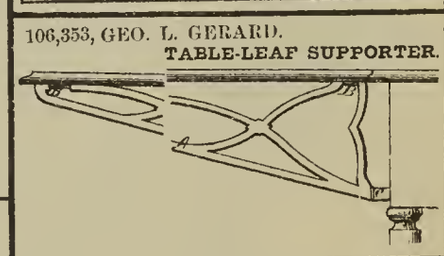


106,352,
DAVID J. GEORGE.
OVENS.



106,353, GEO. L. GERARD.
TABLE-LEAF SUPPORTER.



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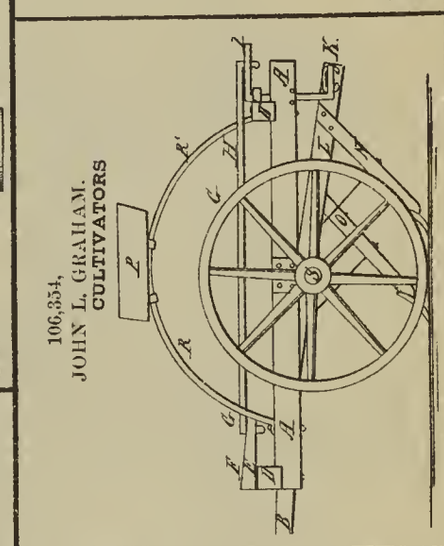
JOHN L. GRAHAM.
CULTIVATORS



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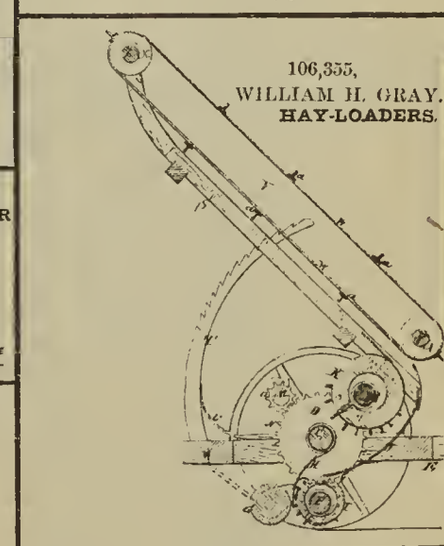
HAY-LOADERS.



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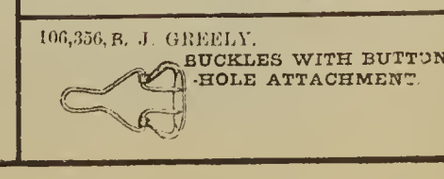
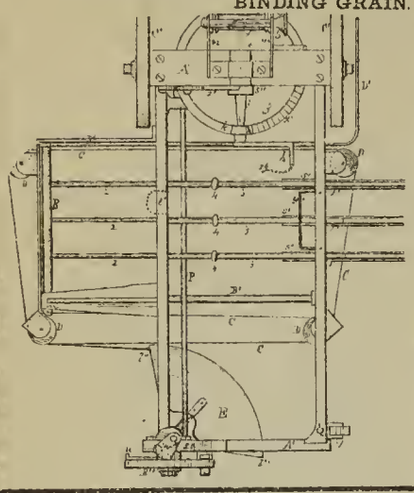
BUCKLES WITH BUTTON-HOLE ATTACHMENT.



106,357. THOMAS K. GRIFFITH.
APPARATUS FOR RAKING AND BINDING GRAIN.



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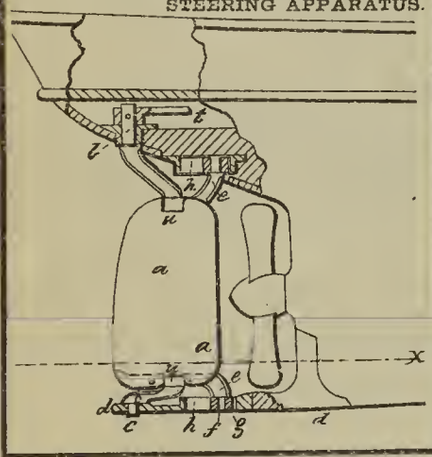
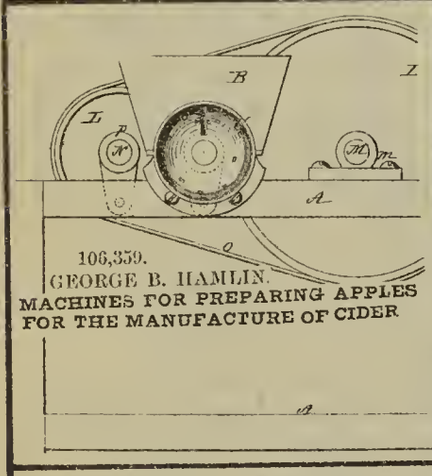
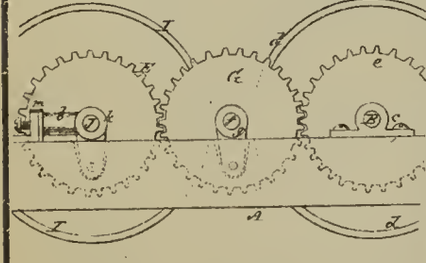




106,359.
GEORGE B. HAMLIN.
MACHINES FOR PREPARING APPLES FOR THE MANUFACTURE OF CIDER.

106,360, GEORGE B. HAMLIN. GEARING AND SELF-ADJUSTING SHAFTS.



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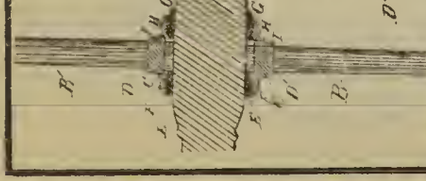
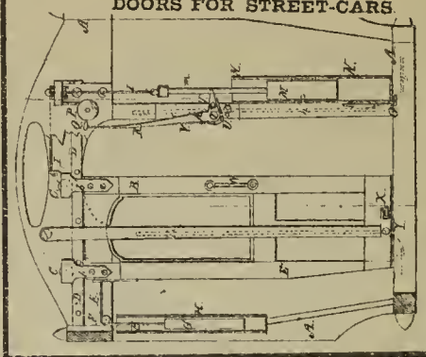


106,362. DANIEL R. HART.
DOORS FOR STREET-CARS.



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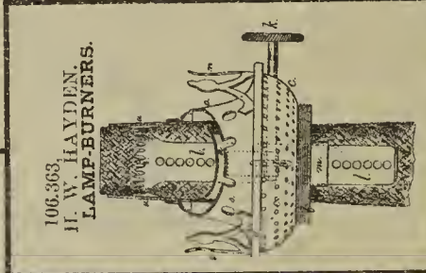
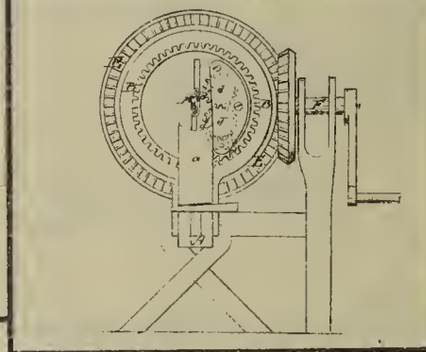
H. W. HAYDEN.
LAMP-BURNERS.



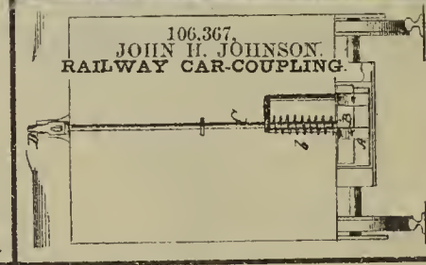
106,364. WILLIAM H. HEFFLEY.
MACHINE FOR TURNING AXLE-TREES.



106,365. JAMES HENDERSON.
THE MANUFACTURE OF IRON AND STEEL.

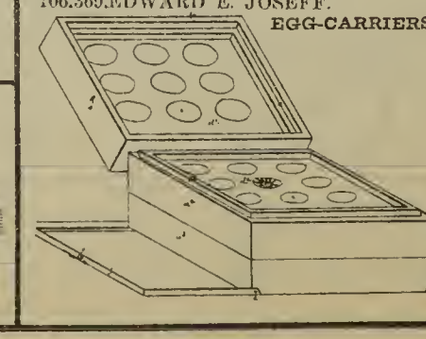
106,366, EUGENE IROS.
THE MANUFACTURE OF BOOT AND SHOE-SOLES.

106,367.
JOHN H. JOHNSON.
RAILWAY CAR-COUPLING.

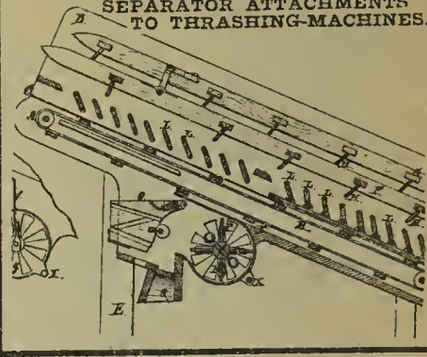


106,368. J. HILTON JONES.
KEY-HOLE GUARDS.

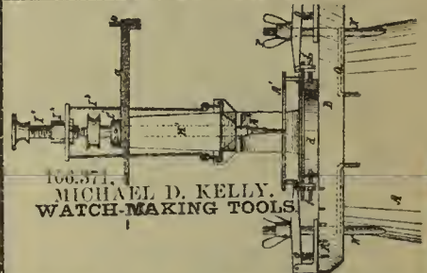
106,369. EDWARD E. JOSEFF.
EGG-CARRIERS.



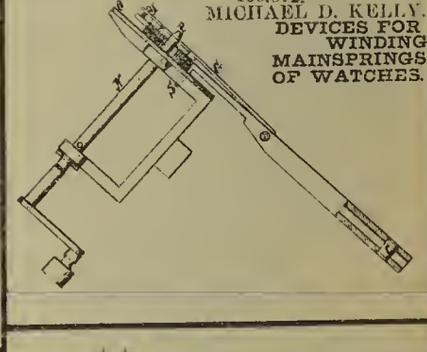
106,370. MOSES A. KELLER.
SEPARATOR ATTACHMENTS TO THRASHING-MACHINES.



106,371.
MICHAEL D. KELLY.
WATCH-MAKING TOOLS.



106,372.
MICHAEL D. KELLY.
DEVICES FOR WINDING MAINSPRINGS OF WATCHES.



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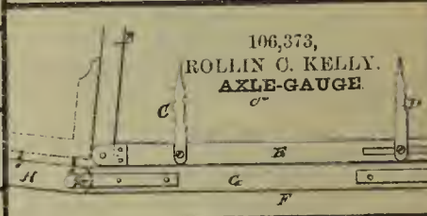
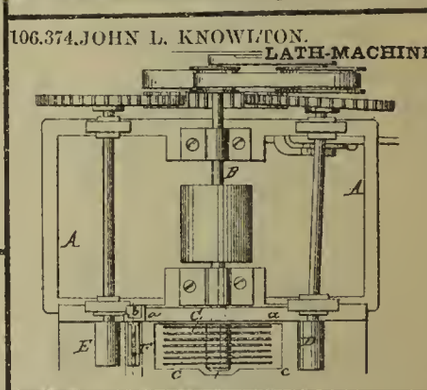
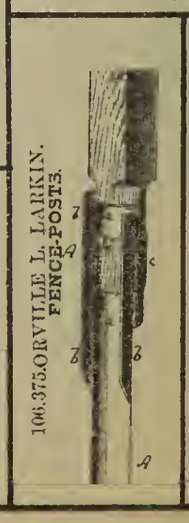
ROLLIN C. KELLY.
AXLE-GAUGE.



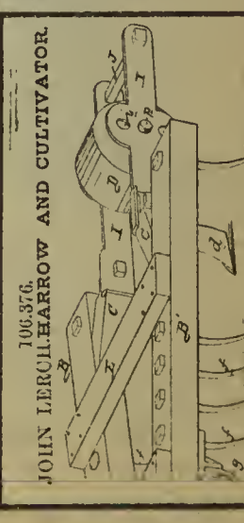
106,374. JOHN L. KNOWLTON.
LATH-MACHINE.



106,375. ORVILLE L. LARKIN.
FENCE-POSTS.



106,376.
JOHN LERCH. HARROW AND CULTIVATOR.



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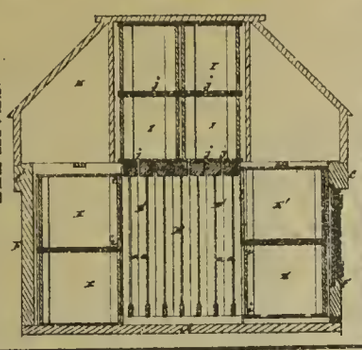
BEE-HIVES.



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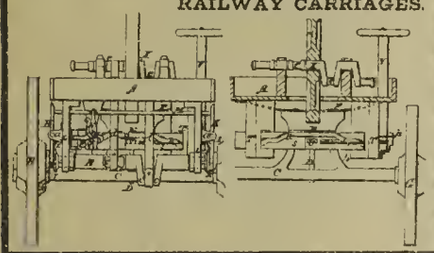
RAILWAY CARRIAGES.



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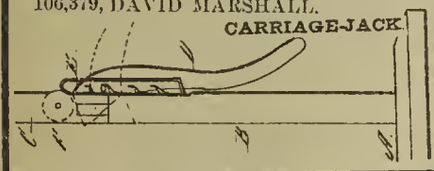
CARRIAGE-JACK.



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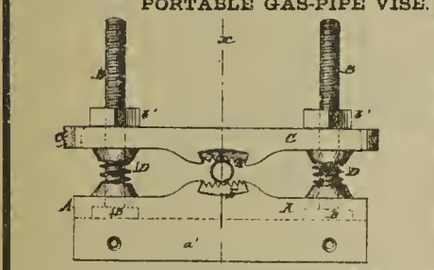
PORTABLE GAS-PIPE VISE.



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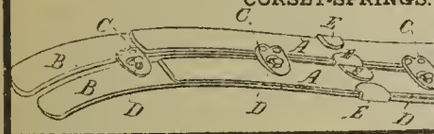

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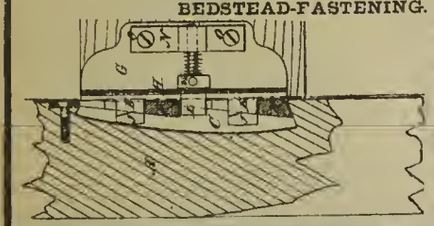
JNO. U. FRALEY.
BEDSTEAD-FASTENING.



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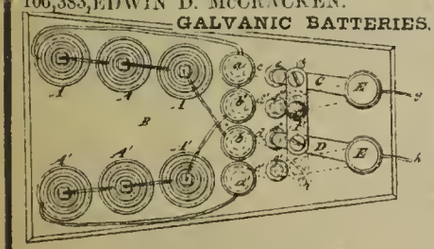
GALVANIC BATTERIES.



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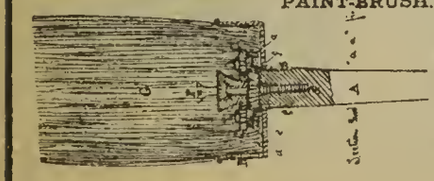
JAS. M. WHITE.
PAINT-BRUSH.



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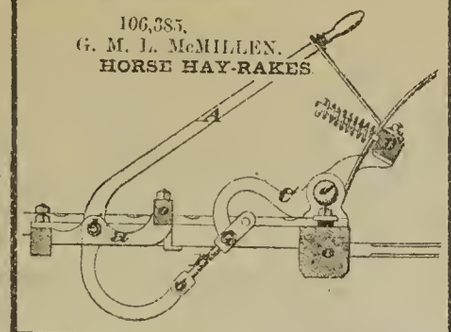
HORSE HAY-RAKES.



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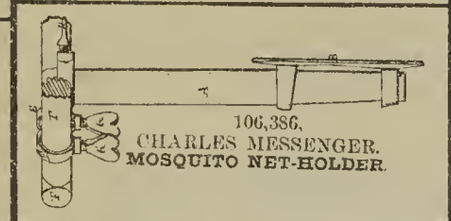
CHARLES MESSENGER.
MOSQUITO NET-HOLDER.



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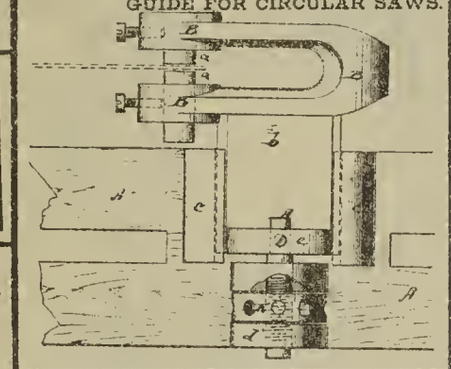
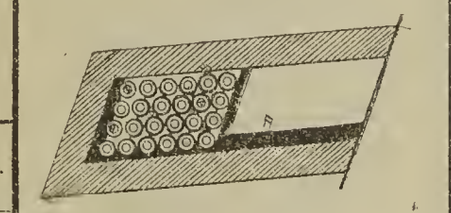
GUIDE FOR CIRCULAR SAWS.



106,388, JOSEPH A. MILLER.
STEAM-GENERATORS.



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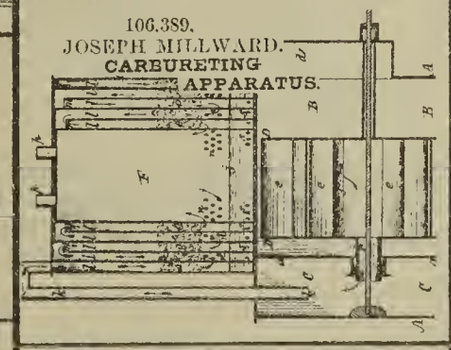
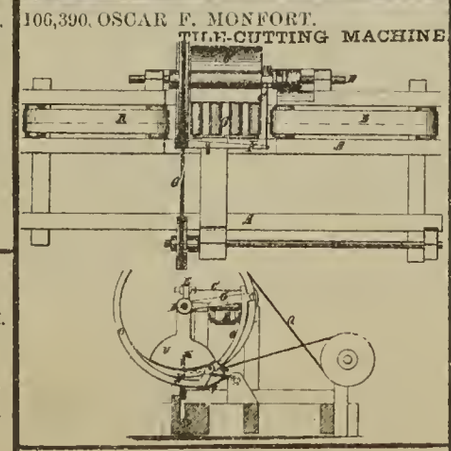


106,390, OSCAR F. MONFORT.
TILE-CUTTING MACHINE.



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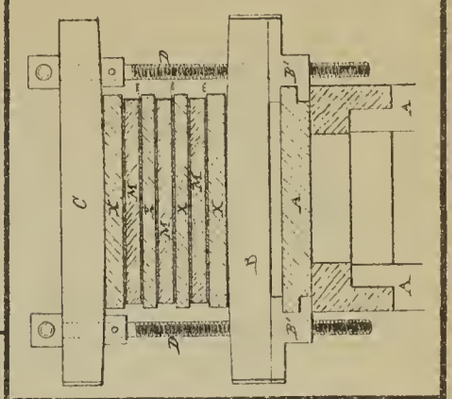
VENEERING-PRESS.



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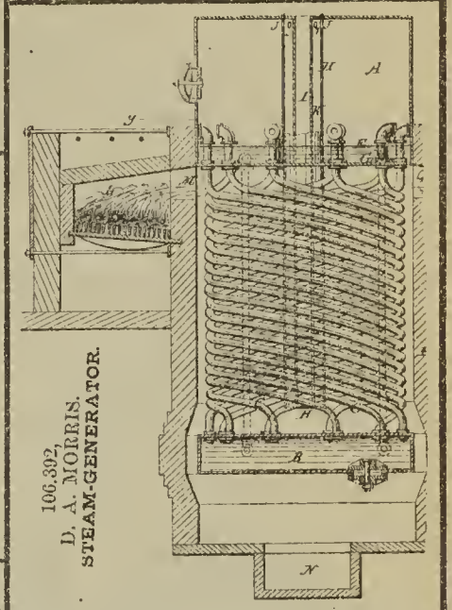
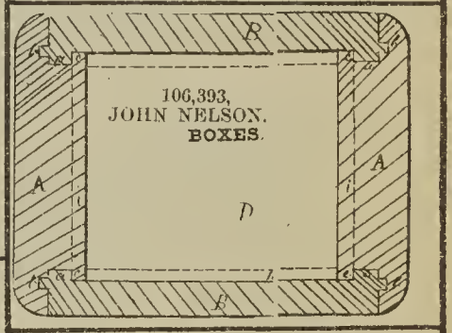
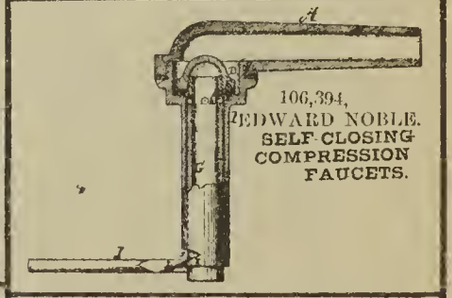
STEAM-GENERATOR.



106,393,
JOHN NELSON.
BOXES.



106,394,
EDWARD NOBLE.
SELF-CLOSING
COMPRESSION
FAUCETS.



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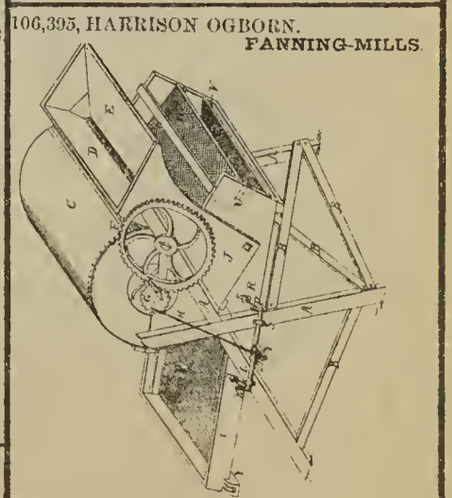
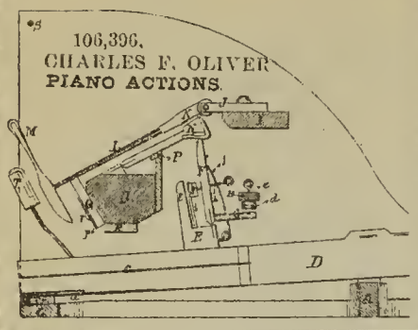
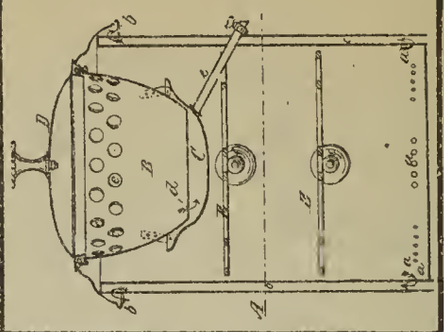
FANNING-MILLS.

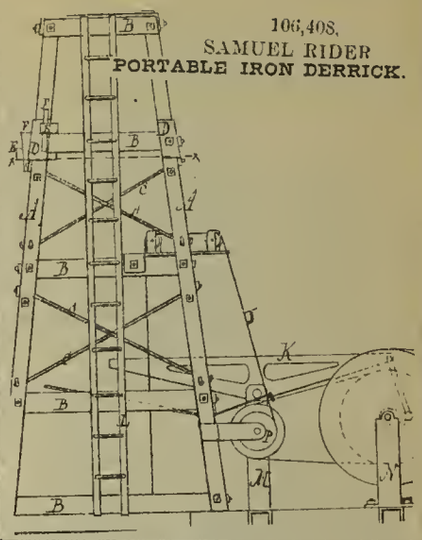


106,396, CHARLES F. OLIVER. PIANO ACTIONS.



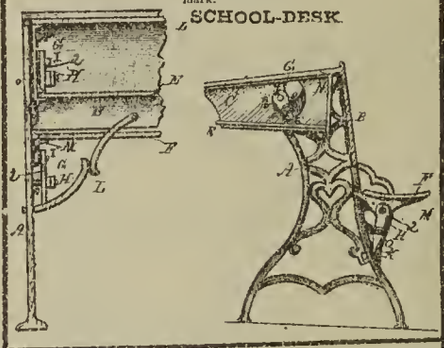


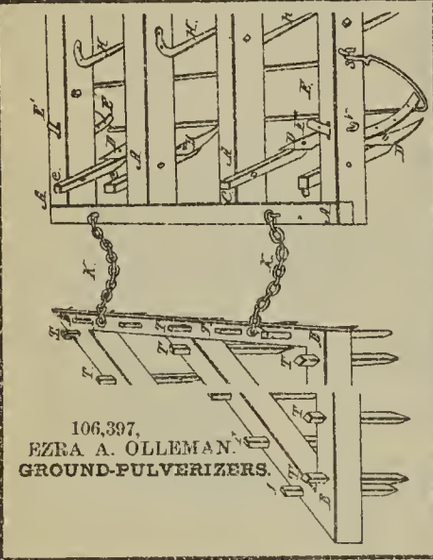
106,408, SAMUEL RIDER. PORTABLE IRON DERRICK.



106,402. ANDREW F. PICKENS. BOXES FOR BLUING, &c.

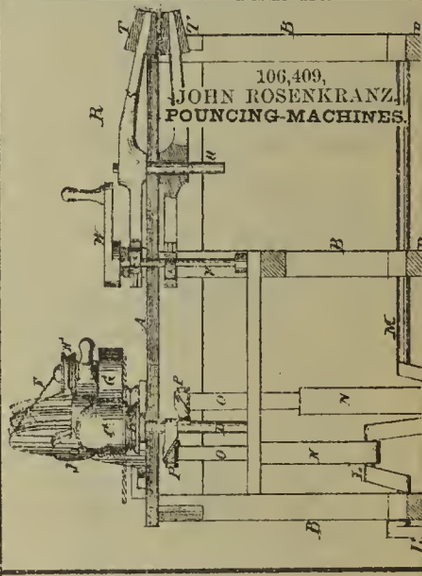
106,403, JOHN F. his × mark. PIEHL. SCHOOL-DESK.





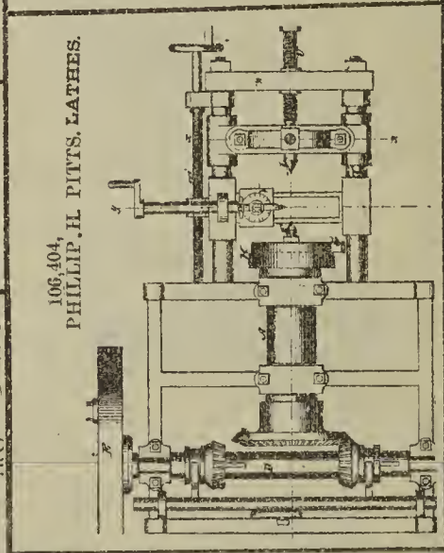
106,397, EZRA A. OLLEMAN. GROUND-PULVERIZERS.

106,409, JOHN ROSENKRANZ. POUNCING-MACHINES.

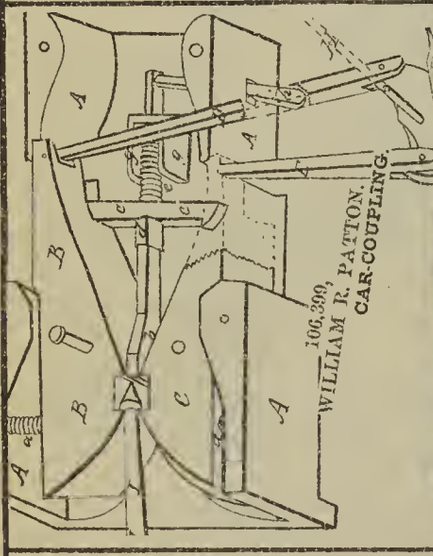


106,398, W. E. OSBORN. HAND-STAMPS.

106,404, PHILLIP. H. PITTS. LATHES.

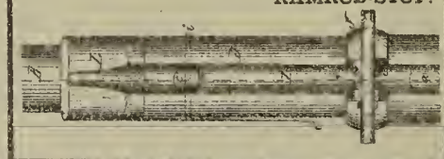


106,410, WM. F. ROSSMAN. STOVE-PIPE DAMPER.

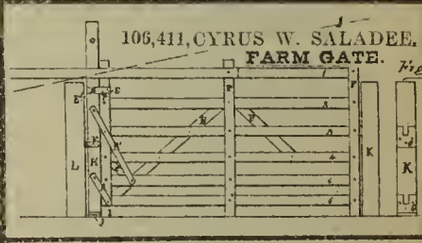


106,399, WILLIAM R. PATTON. CAR-COUPLING.

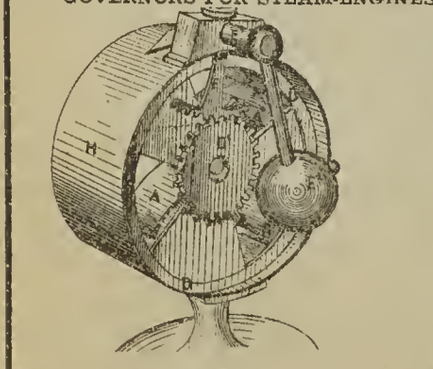
106,405, SAMUEL W. PORTER. RAMROD-STOP.

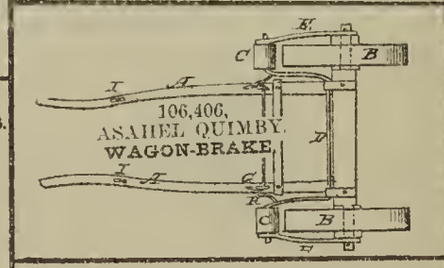


106,411, CYRUS W. SALADEE. FARM GATE.



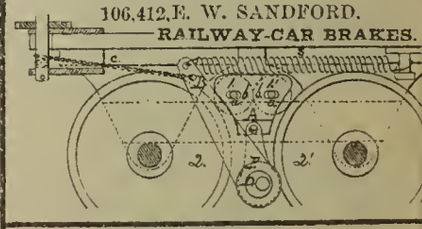
106,400, ANDREW J. PEAVEY. GOVERNORS FOR STEAM-ENGINES.



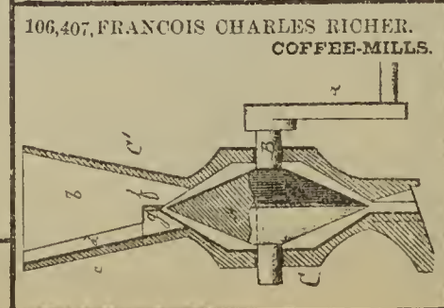


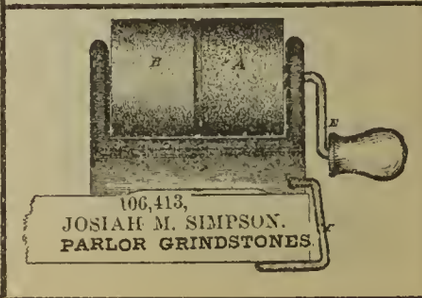
106,406, ASAHEL QUIMBY. WAGON-BRAKE.

106,412, E. W. SANDFORD. RAILWAY-CAR BRAKES.



106,407, FRANCOIS CHARLES RICHER. COFFEE-MILLS.

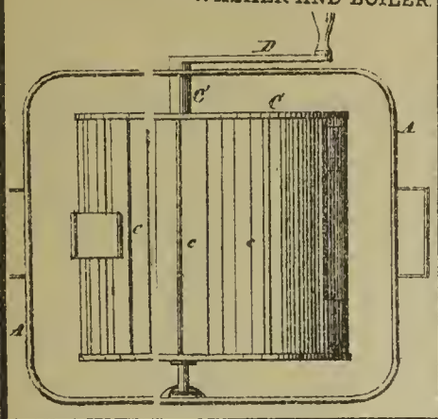




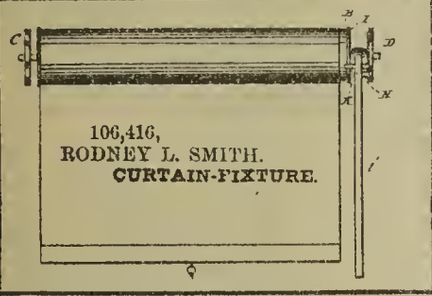
106,413, JOSIAH M. SIMPSON. PARLOR GRINDSTONES.

106,401, E. PERKINS. REFRIGERATOR.

106,414, JOHN SLATER.
WASHER AND BOILER.

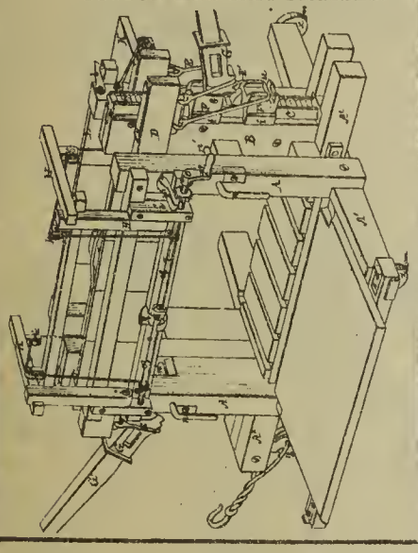


106,415, CHAS. H. SMITH
TATTING-SHUTTLE.

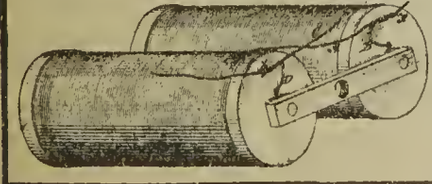


106,416,
RODNEY L. SMITH.
CURTAIN-FIXTURE.

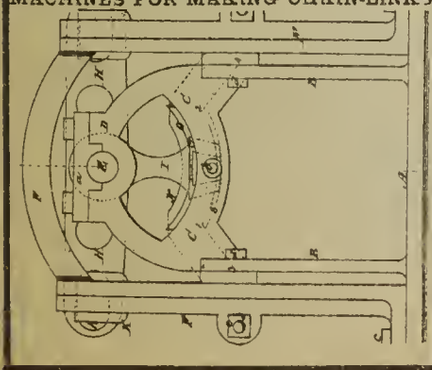
106,417, WM. M. SMITH.
COTTON AND HAY-PRESSES.



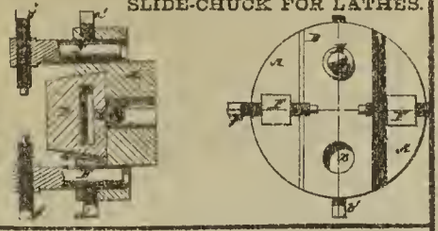
106,418, W. W. SMITH.
ELECTRO-MAGNETS.



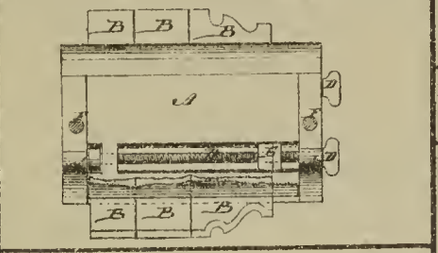
106,419, J. H. SNYDER.
MACHINES FOR MAKING CHAIN-LINKS.



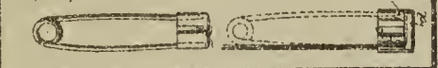
106,420, CHARLES F. STACKPOLE.
SLIDE-CHUCK FOR LATHES.



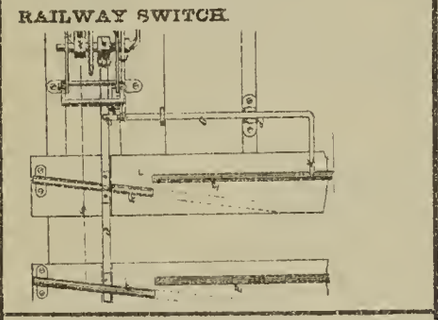
106,421, DARIUS STEVENS, CUTTER-HEAD FOR PLANING-MACHINE.



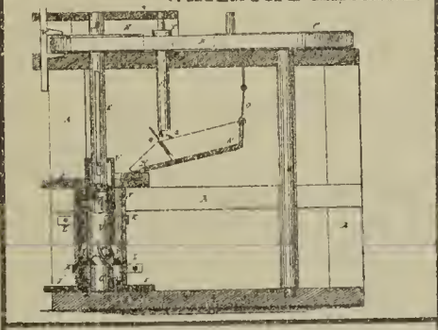
106,422, ISAAC W. STEWART, DIAPER-PIN.



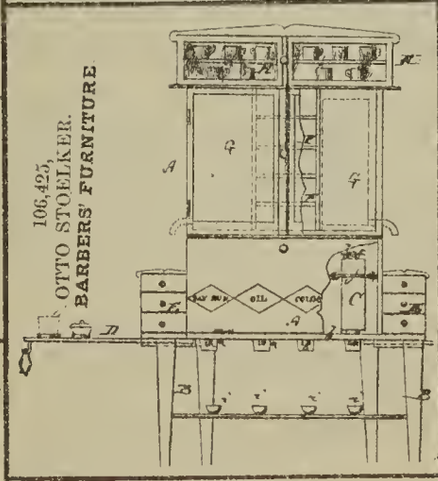
106,423. J. H. STOCKTON.
RAILWAY SWITCH.



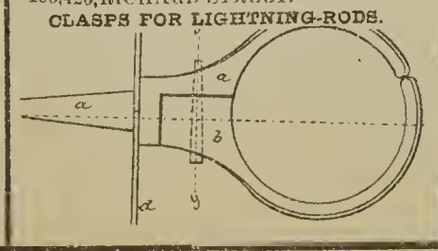
106,424, JOHN W. STOCKWELL.
WATER-PIPE MACHINE.



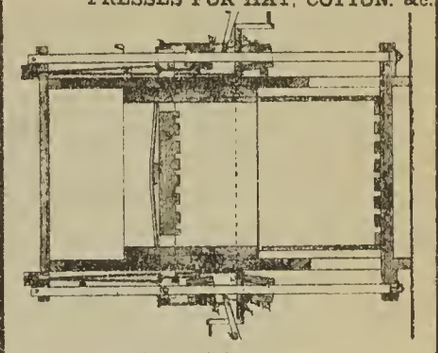
106,425,
OTTO STOELKER.
BARBERS' FURNITURE



106,426, RICHARD STREET.
CLASPS FOR LIGHTNING-RODS.



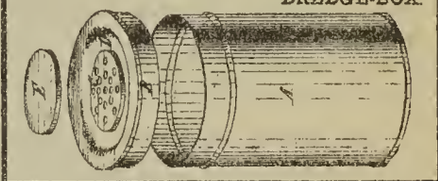
106,427, GEORGE W. SWINEBROAD.
PRESSES FOR HAY, COTTON, &c.



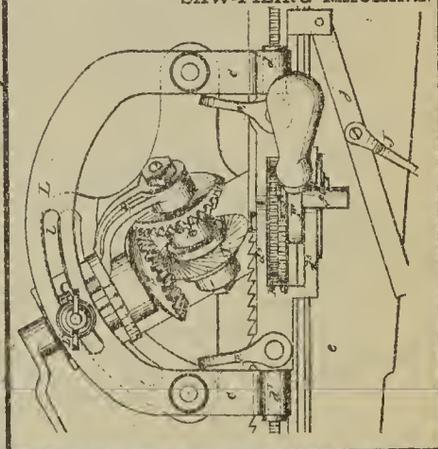
106,428, ASHER S. TAYLOR.
BEVERAGE, OR "CHAMPAGNE MEAD."

106,429, GILBERT FISK TAYLOR.
GEAR FOR CARPET-SWEEPING MACHINES.

106,430, AUGUSTUS F. TRIPP.
DREDGE-BOX.

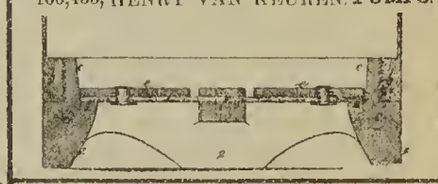


106,431, WILLIAM TUCKER.
SAW-FILING MACHINE.

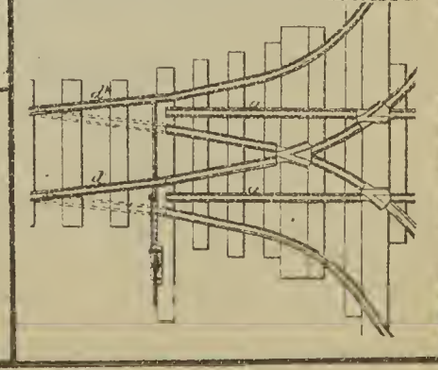


106,432, ALMON TWING. REVERSIBLE CENTER PINION FOR WATCHES.

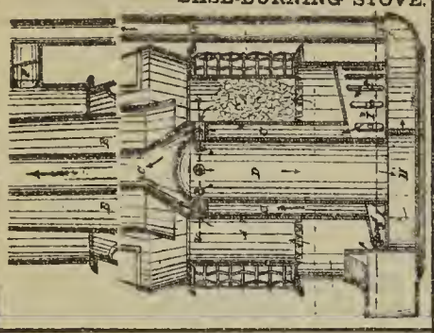
106,433, HENRY VAN KEUREN. PUMPS.



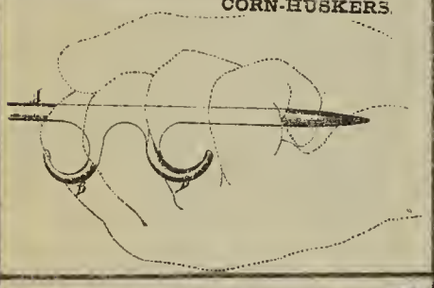
106,434, HORACE S. WEAVER.
RAILWAYS.



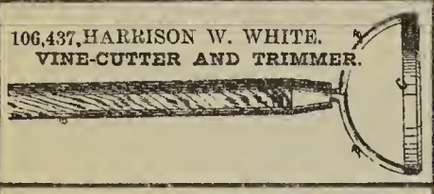
106,435, ALBERT G. WEBSTER.
BASE-BURNING STOVE.



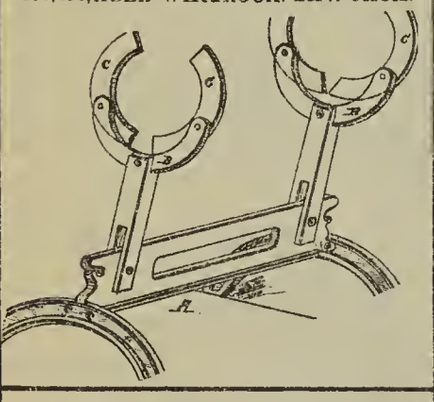
106,436, DWIGHT F. WELSH.
CORN-HUSKERS.



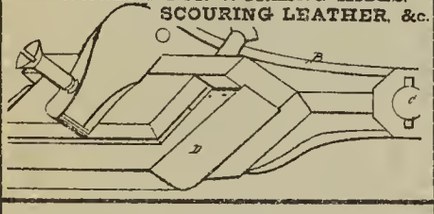
106,437, HARRISON W. WHITE.
VINE-CUTTER AND TRIMMER.



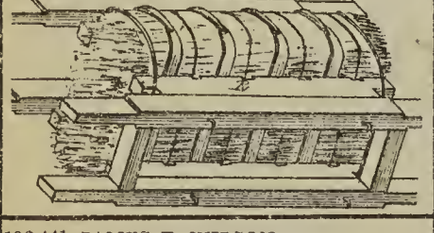
106,438, ABEL WHITLOOK. SAW-JACK.



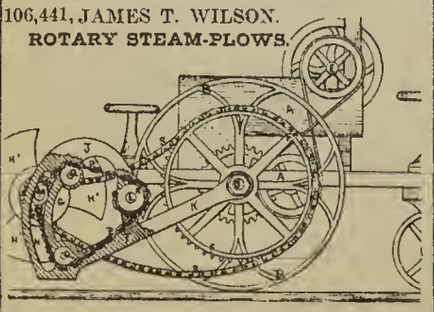
106,439, THERON R. WILLIAMS.
MACHINERY FOR WORKING HIDES, SCOURING LEATHER, &c.



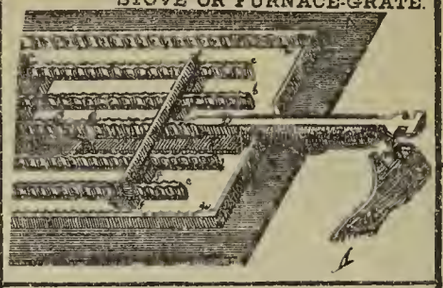
106,440, WM. J. WILLSON.
PRESSES FOR BALING BROOM-CORN.



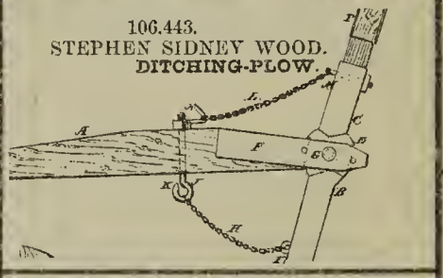
106,441, JAMES T. WILSON.
ROTARY STEAM-PLOWS.



106,442, GEORGE A. WING.
STOVE OR FURNACE-GRATE.

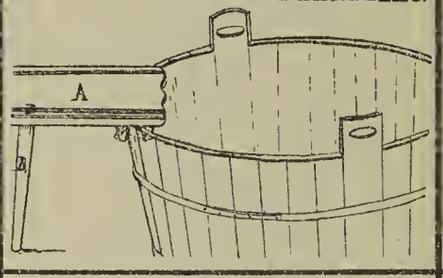


106,443.
STEPHEN SIDNEY WOOD.
DITCHING-PLOW.

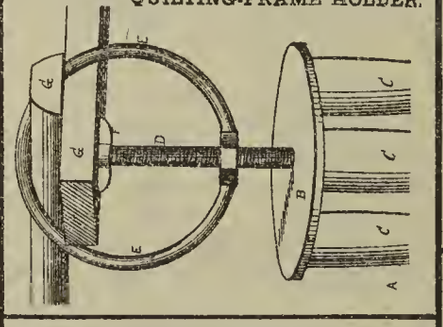


106,444.
GILBERT I. WOOSTER.
HAY-SPREADERS.

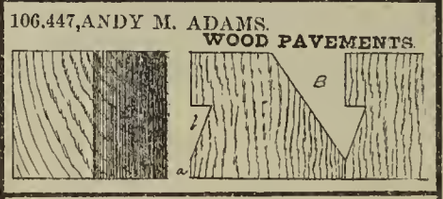
106,445, ALLEN P. YOUNG.
PORTABLE BATH-SEAT.



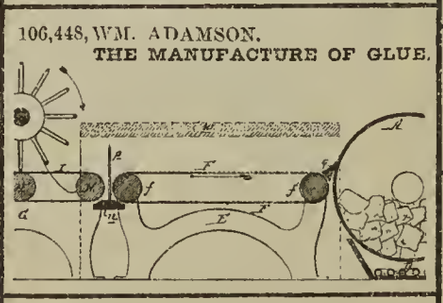
106,446, NICHOLAS YOUNG.
QUILTING-FRAME HOLDER.



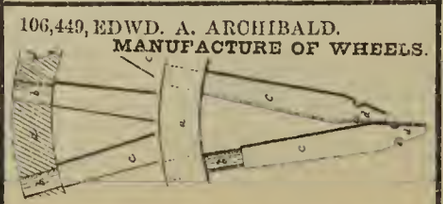
106,447, ANDY M. ADAMS.
WOOD PAVEMENTS.



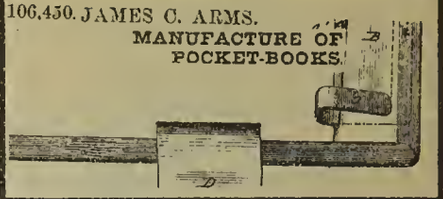
106,448, WM. ADAMSON.
THE MANUFACTURE OF GLUE.



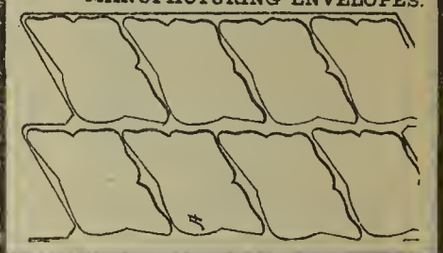
106,449, EDWD. A. ARCHIBALD.
MANUFACTURE OF WHEELS.



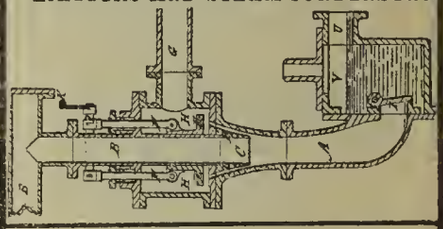
106,450. JAMES C. ARMS.
MANUFACTURE OF POCKET-BOOKS.



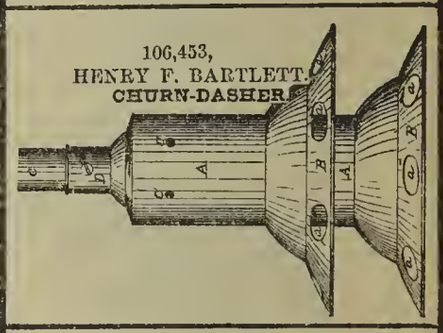
106,451, JAMES BALL.
MANUFACTURING ENVELOPES.



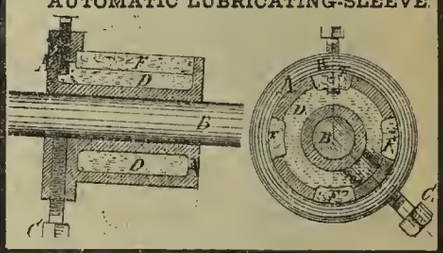
106,452, ANDREW BARCLAY.
EJECTORS AND STEAM-CONDENSERS.



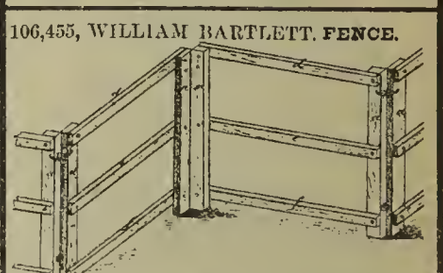
106,453,
HENRY F. BARTLETT.
CHURN-DASHER.



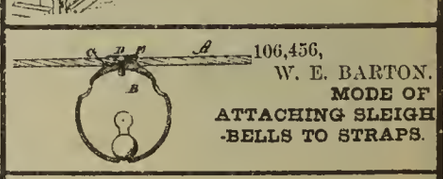
106,454, SAM. R. BARTLETT.
AUTOMATIC LUBRICATING-SLEEVE.



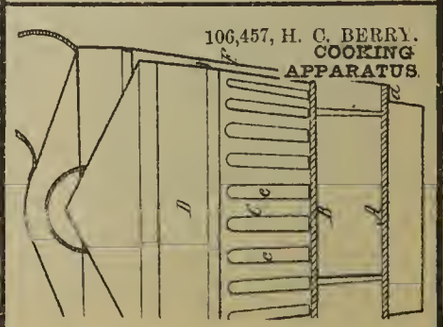
106,455, WILLIAM BARTLETT. FENCE.



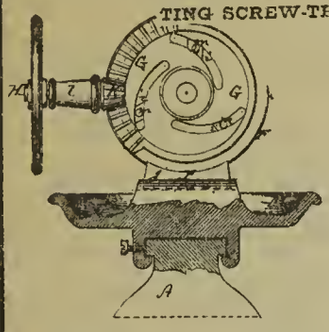
106,456,
W. E. BARTON.
MODE OF ATTACHING SLEIGH-BELLS TO STRAPS.



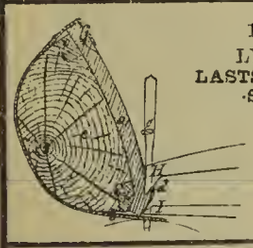
106,457, H. C. BERRY.
COOKING APPARATUS.



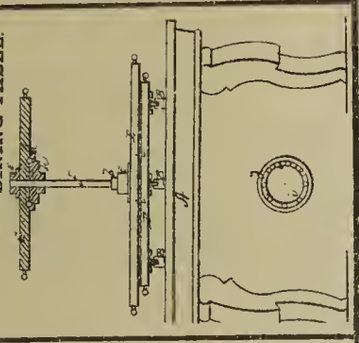
106,458. GEORGE BLAKE.
MACHINES FOR CUTTING OFF SHAFTS AND PIPES AND FOR CUTTING SCREW-THREADS.



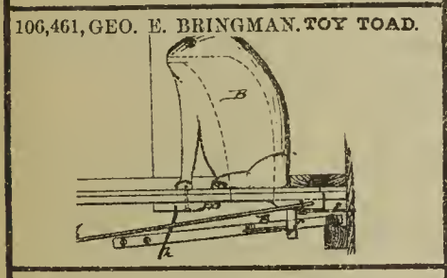
106,459, LYMAN R. BLAKE.
LASTS FOR MACHINE-SEWED TURNED SHOES.



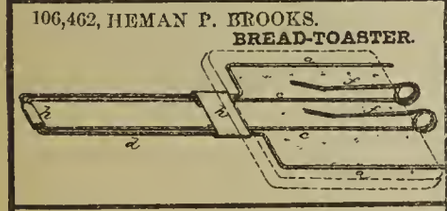
106,460, MINOR P. BOYD.
DINING-TABLE.



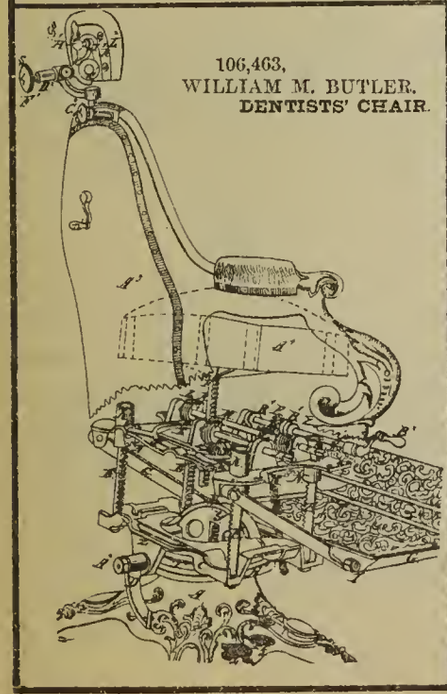
106,461, GEO. E. BRINGMAN. TOY TOAD.



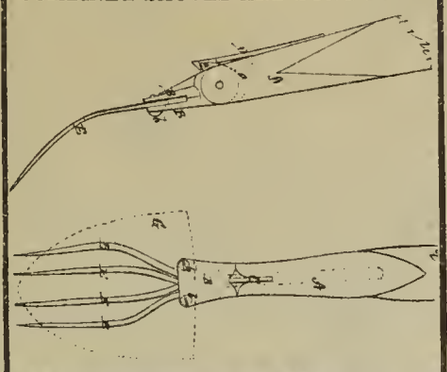
106,462, HEMAN P. BROOKS.
BREAD-TOASTER.



106,463, WILLIAM M. BUTLER.
DENTISTS' CHAIR.

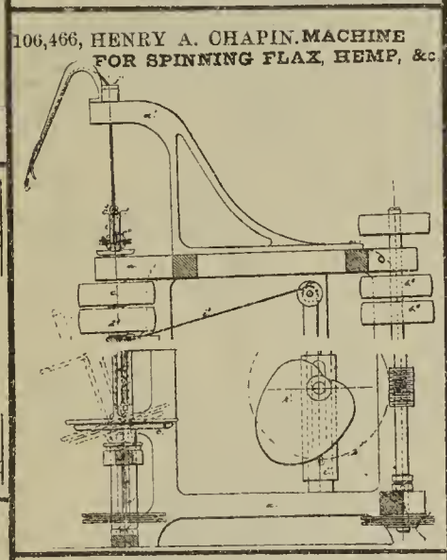


106,464, JESSE CARPENTER.
COMBINED SHOVEL AND DUNG-FORK.

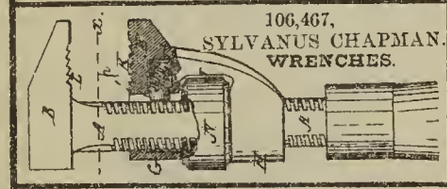


106,465, FERDINAND CASSEL.
PRESERVATION OF MEAT AND OTHER ARTICLES OF FOOD.

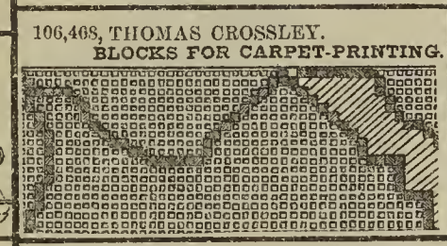
106,466, HENRY A. CHAPIN. MACHINE FOR SPINNING FLAX, HEMP, &c.



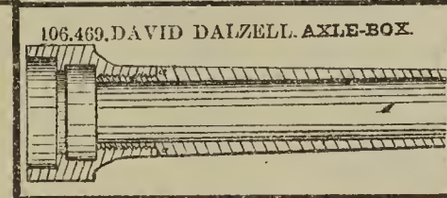
106,467, SYLVANUS CHAPMAN.
WRENCHES.



106,468, THOMAS CROSSLEY.
BLOCKS FOR CARPET-PRINTING.

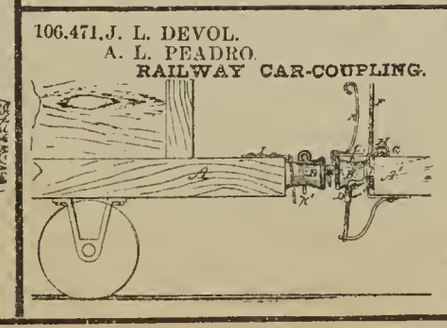


106,469. DAVID DALZELL. AXLE-BOX.

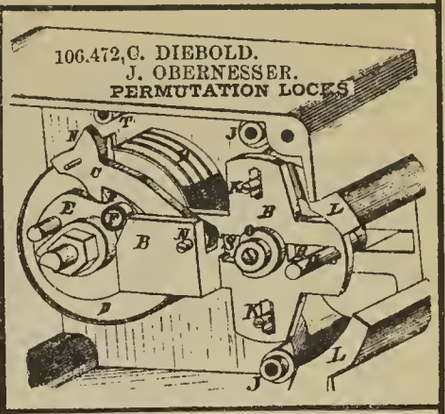


106,470. DAVID DALZELL.
AXLE FOR VEHICLES.

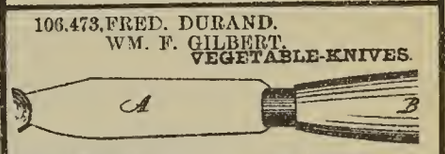
106,471. J. L. DEVOL.
A. L. PEADRO.
RAILWAY CAR-COUPLING.



106,472. C. DIEBOLD.
J. OBERNESSER.
PERMUTATION LOCKS.

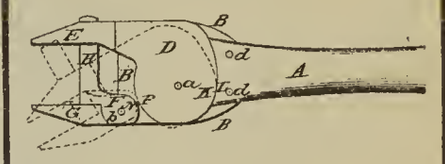


106,473. FRED. DURAND.
WM. F. GILBERT.
VEGETABLE-KNIVES.

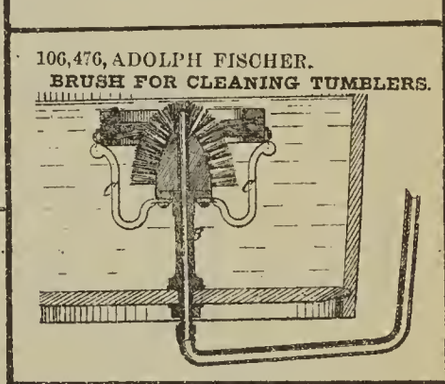


106,474. THEODOR G. EISWALD.
MEDICAL COMPOUND FOR THE CURE OF GRAVEL.

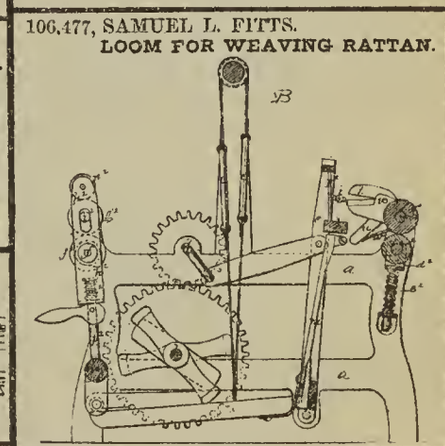
106,475. HENRY FESSLER. WRENCHES.
R. V. JONES.



106,476. ADOLPH FISCHER.
BRUSH FOR CLEANING TUMBLERS.



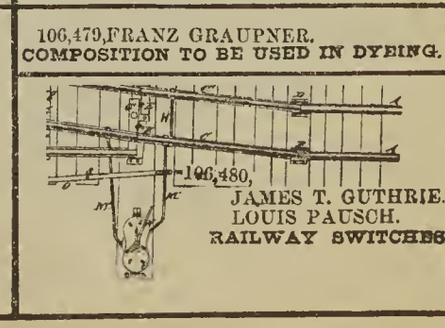
106,477. SAMUEL L. FITTS.
LOOM FOR WEAVING RATTAN.



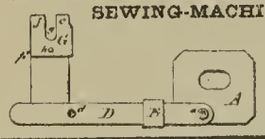
106,478. JULIUS GERBER.
CULTIVATORS.

106,479. FRANZ GRAUPNER.
COMPOSITION TO BE USED IN DYEING.

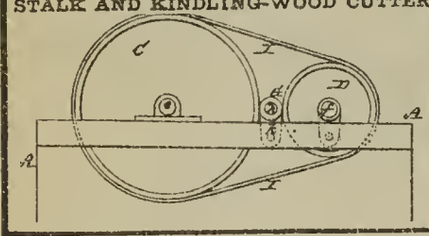
106,480. JAMES T. GUTHRIE.
LOUIS PAUSCH.
RAILWAY SWITCHES.



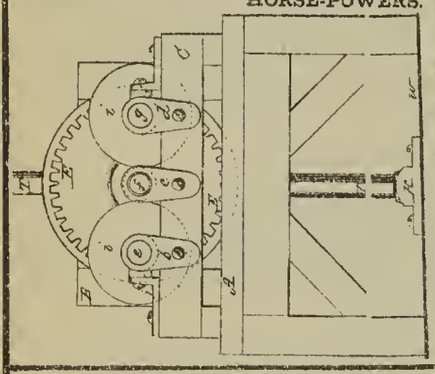
106,481, HENRY M. HALL.
RUFFLING ATTACHMENT FOR SEWING-MACHINES.



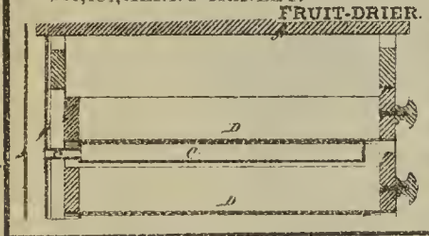
106,482, GEORGE B. HAMLIN.
STALK AND KINDLING-WOOD CUTTER.



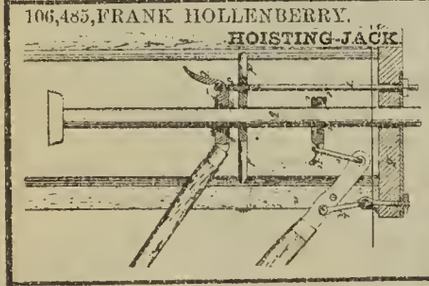
106,483, GEORGE B. HAMLIN.
HORSE-POWERS.



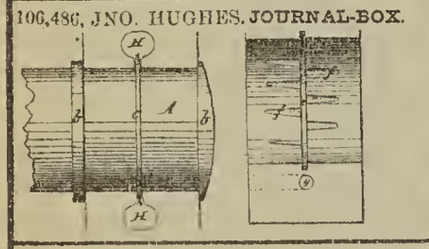
106,484, HENRY HENLEY.
FRUIT-DRIER.



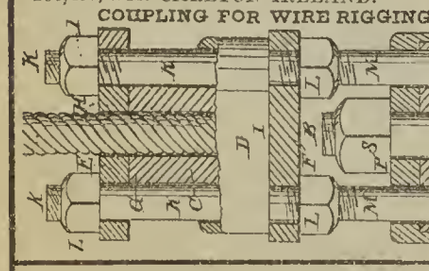
106,485, FRANK HOLLENBERRY.
HOISTING-JACK.



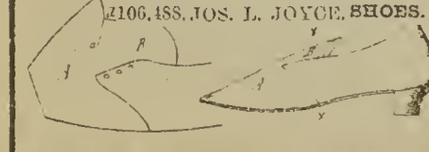
106,486, JNO. HUGHES. JOURNAL-BOX.



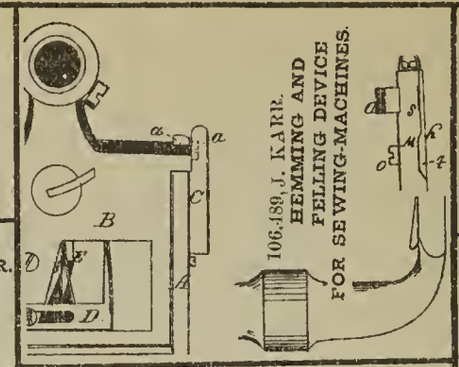
106,487, WM. CARLTON IRELAND.
COUPLING FOR WIRE RIGGING.



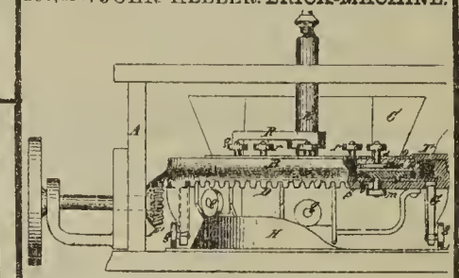
106,488, JOS. L. JOYCE. SHOES.



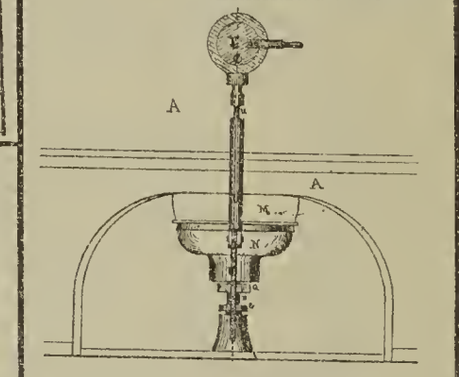
106,489, J. KARR.
HEMMING AND FELLING DEVICE FOR SEWING-MACHINES.



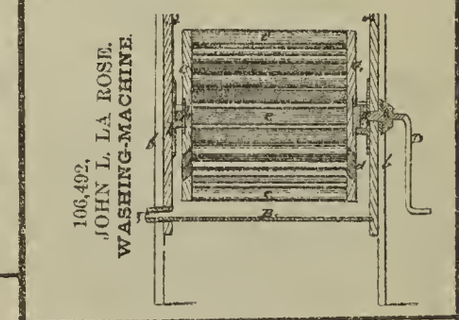
106,490, JOHN KELLER. BRICK-MACHINE.



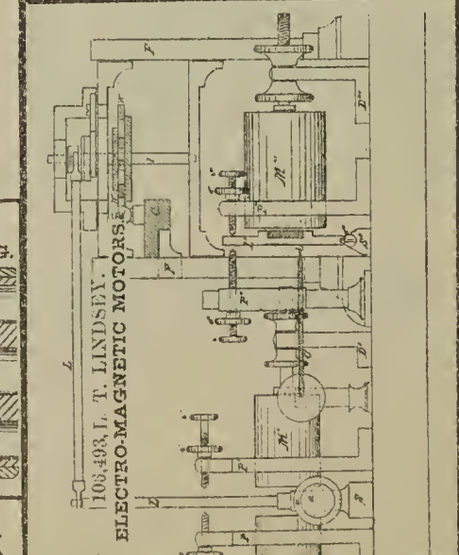
106,491, ROBERT LAFFERTY.
HUGH W. LAFFERTY.
CENTRIFUGAL SUGAR-DRAINING MACHINE.



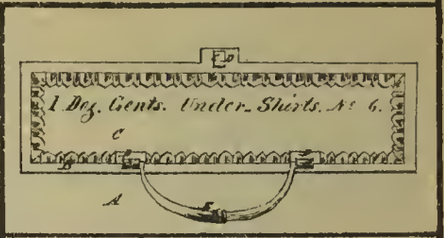
106,492, JOHN L. LA ROSE.
WASHING-MACHINE.



106,493, L. T. LINDSEY.
ELECTRO-MAGNETIC MOTORS.

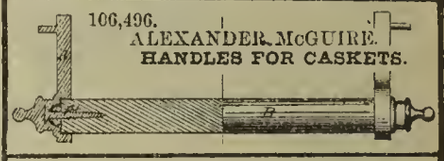


106,494, HENRY MANNECK.
COMBINATION OF LABEL-HOLDER AND HANDLE.

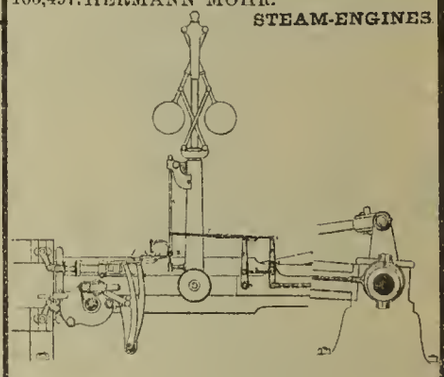


106,495, DAVID MAYDOLE.
SPRINGS FOR PISTON PACKING.

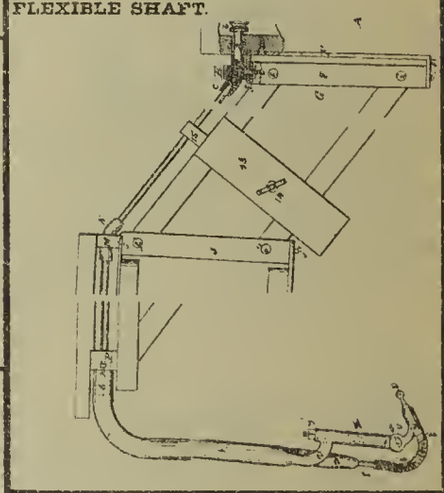
106,496. ALEXANDER McGUIRE.
HANDLES FOR CASKETS.



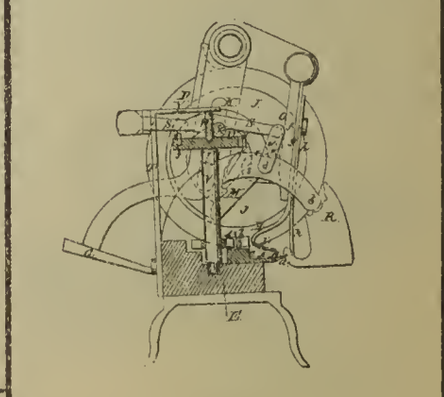
106,497. HERMANN MOHR.
STEAM-ENGINES.



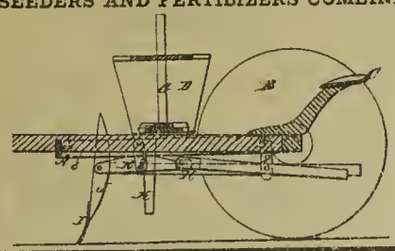
106,498. J. B. MORRISON.
FLEXIBLE SHAFT.



106,499, EDWARD MORSE.
KNITTING-MACHINES.

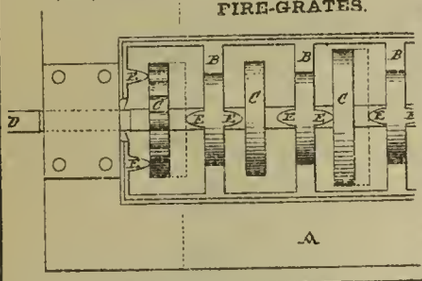


106,500, WASHINGTON B. MYERS.
SEEDERS AND FERTILIZERS COMBINED.

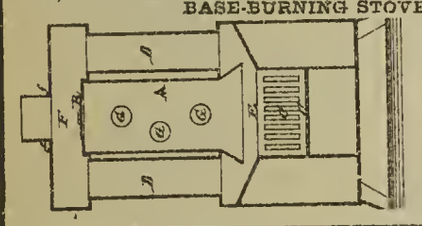


106,501, ANDREW PATTERSON. NAILS.

106,502, MERRITT PECKHAM.
FIRE-GRATES.

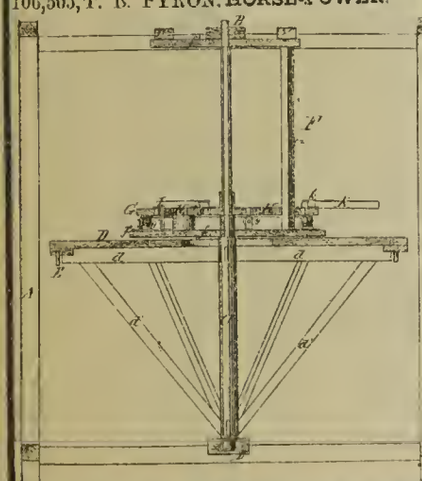


106,503, MERRITT PECKHAM.
BASE-BURNING STOVE.

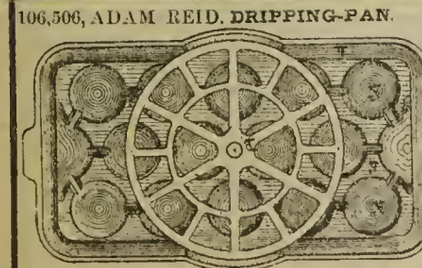


106,504, JOHN POTTER.
TOBACCO-BOX OR DRUM.

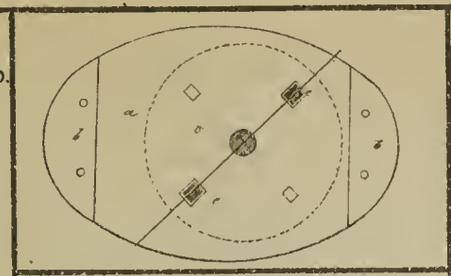
106,505, T. B. PYRON. HORSE-POWER.



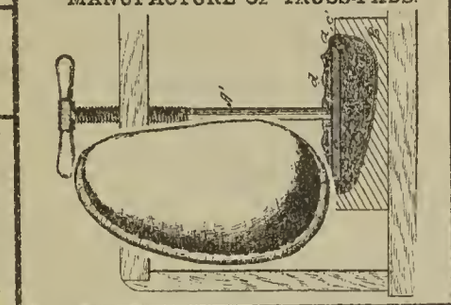
106,506, ADAM REID. DRIPPING-PAN.



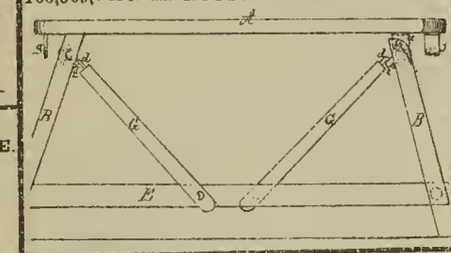
106,507, THOMAS H. RICE.
SHEAVE-BLOCKS.



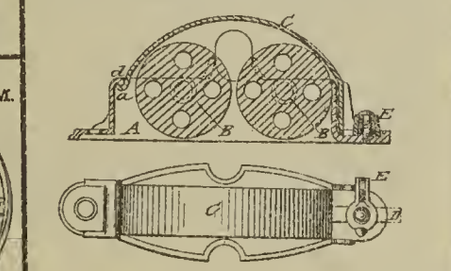
106,508. S. S. RITTER.
MANUFACTURE OF TRUSS-PADS.



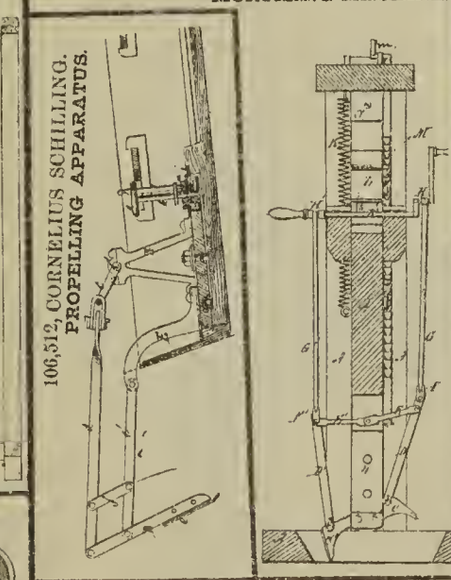
106,509, JAS. H. RUFF. IRONING TABLE.



106,510, J. B. SARGENT.
GRINDSTONE JOURNAL-BOX.

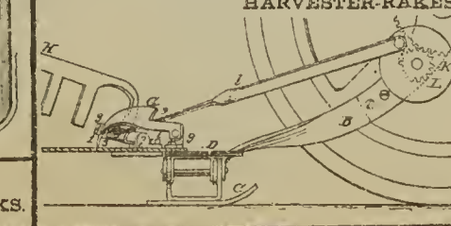


106,511, GEO. T. SAVARY.
MORTISING-MACHINE.

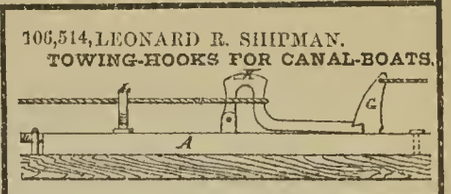


106,512, CORNELIUS SCHILLING.
PROPELLING APPARATUS.

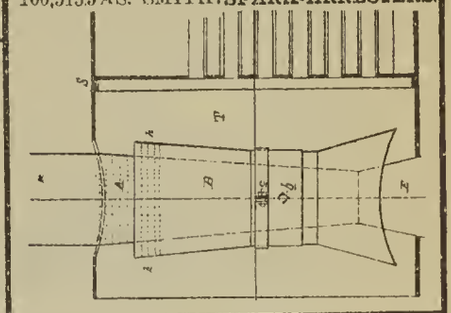
106,513, JACOBS W. SCHUCKERS.
HARVESTER-RAKES.



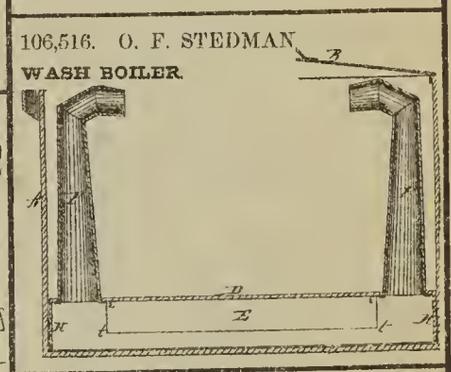
106,514, LEONARD R. SHIPMAN.
TOWING-HOOKS FOR CANAL-BOATS.



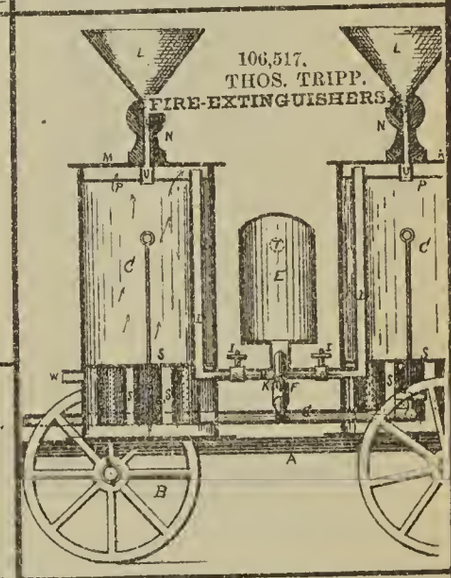
106,515, JAS. SMITH. SPARK-ARRESTERS.



106,516. O. F. STEDMAN.
WASH BOILER.

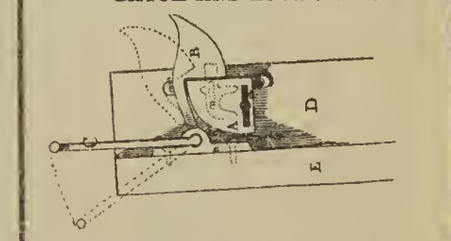


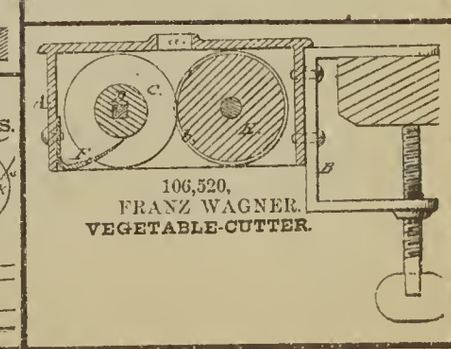
106,517. THOS. TRIPP.
FIRE-EXTINGUISHERS.



106,518, WM. P. VAN DEURSEN.
COMPOUND
FOR EXTINGUISHING FIRES.

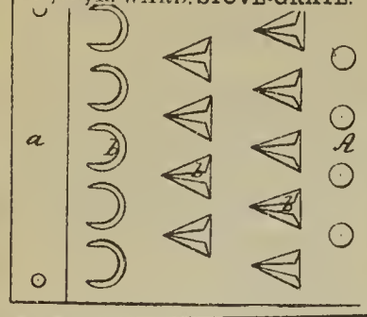
106,519, HENRY R. VAN EPS COMBINED
LATCH AND LOCK FOR GATES.



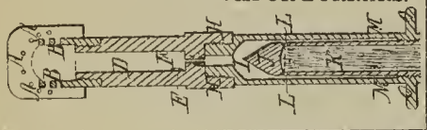


106,520,
FRANZ WAGNER.
VEGETABLE-CUTTER.

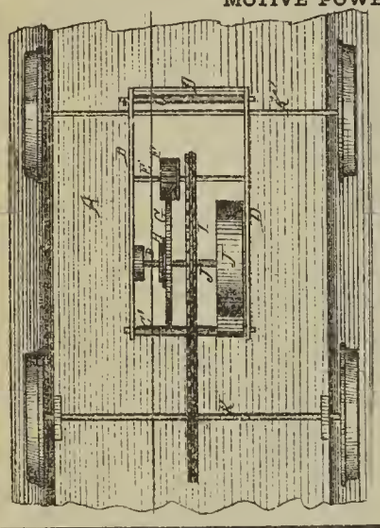
106,521, R. WARD. STOVE-GRATE.



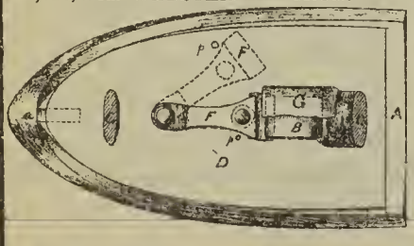
106,522, THOMAS WARD. VAPOR-BURNERS.



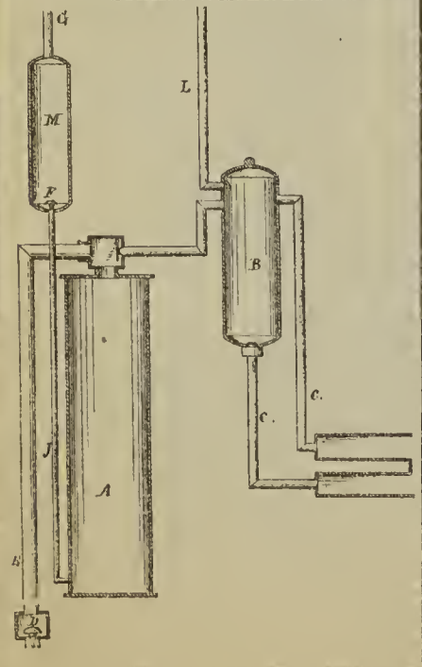
106,523, WILLIAM MEDD WATSON. MOTIVE POWER.



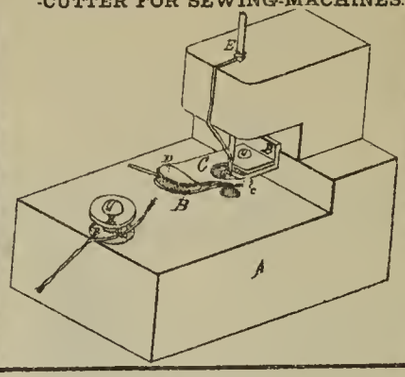
106,524, WM. WEBSTER. SAD-IRON.



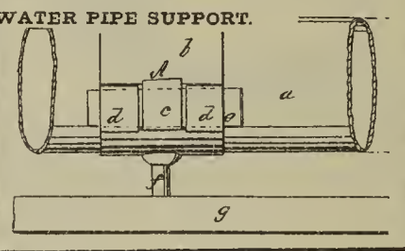
106,525, HENRY MORSE WIGHTMAN. STEAM WATER-ELEVATORS.



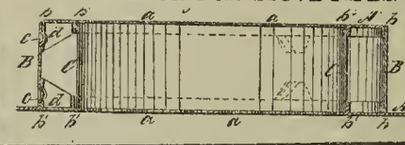
106,526, CORNELL J. WOOD. THREAD-CUTTER FOR SEWING-MACHINES.



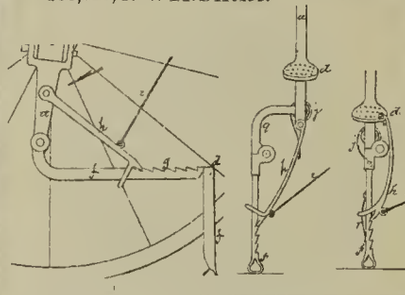
106,527. C. D. WOODRUFF. WATER PIPE SUPPORT.



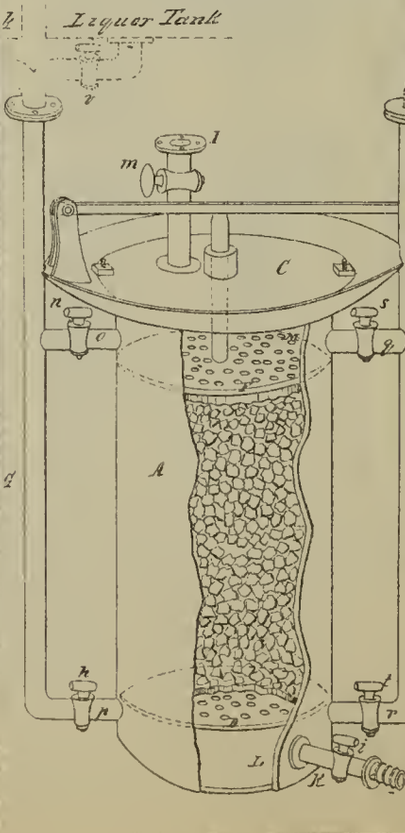
106,528. C. D. WOODRUFF. VENTILATOR FOR STOVE-PIPES.



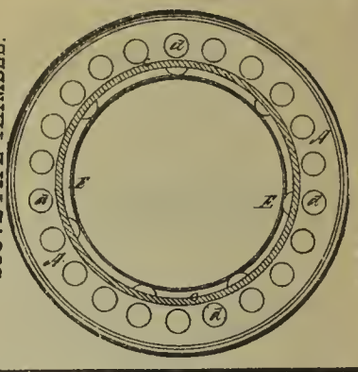
106,529, C. WYNDHAM. VELOCIPEDE.



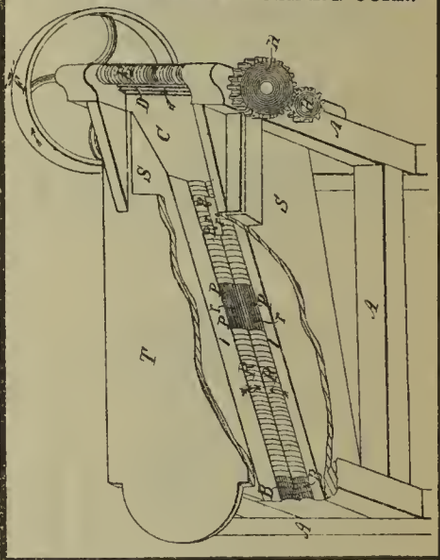
106,530, CH. L. FLEISCHMANN. APPARATUS FOR RECTIFYING ALCOHOLIC LIQUORS.



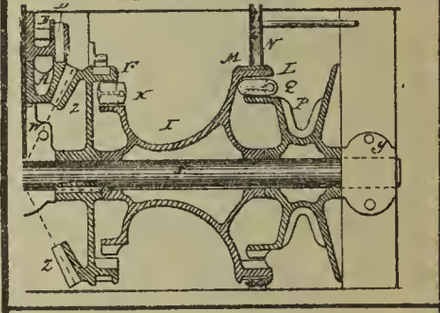
4,098. THOMAS K. ANDERSON. STOVE-PIPE THIMBLE.



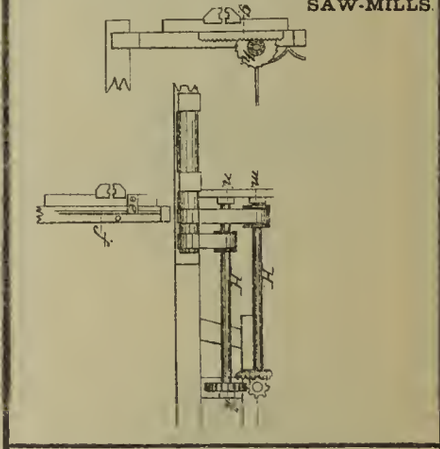
4,099, L. AUGS. ASPINWALL. MACHINE FOR HUSKING CORN.



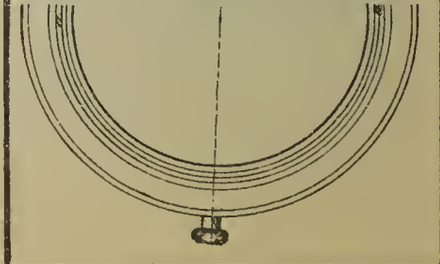
4,100, DAVID N. B. COFFIN, JR. BENJAMIN WOODWARD. CAPSTANS AND WINDLASSES.



4,101, ALEXANDER McCREIGHT. SAW-MILLS.

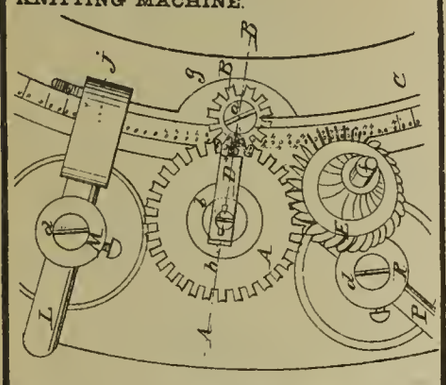


4,102, WM. WILMINGTON. CHILLS FOR CASTING CAR-WHEELS.

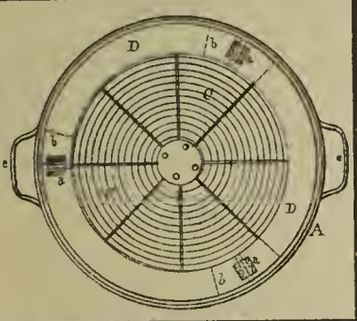


ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
AUGUST 23, 1870.

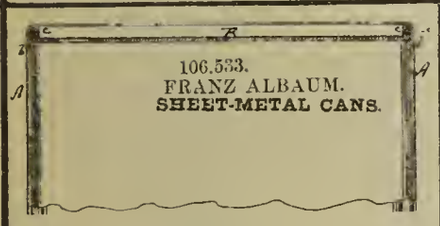
106,531. W. H. ABEL.
KNITTING MACHINE.



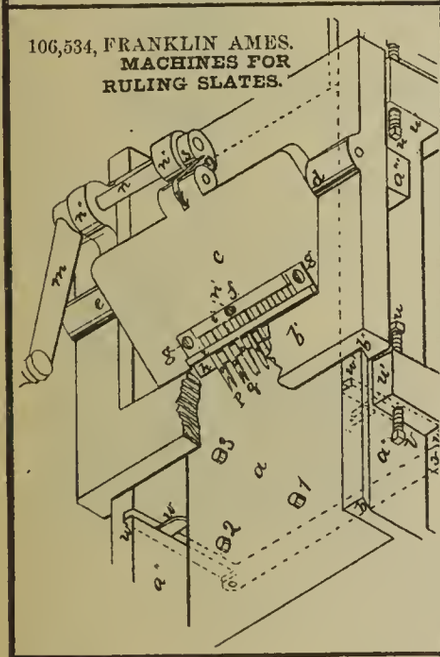
106,532. SANFORD ADAMS.
COAL-SIFTERS.



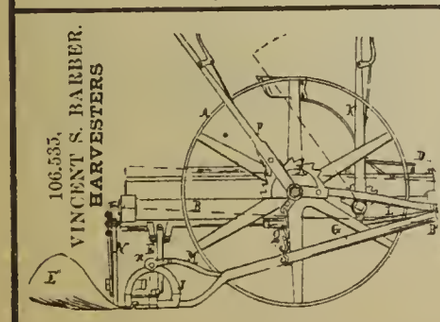
106,533. FRANZ ALBAUM.
SHEET-METAL CANS.



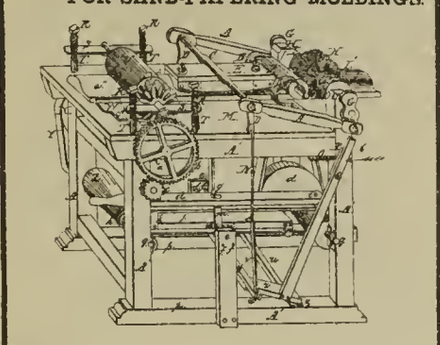
106,534, FRANKLIN AMES.
MACHINES FOR RULING SLATES.



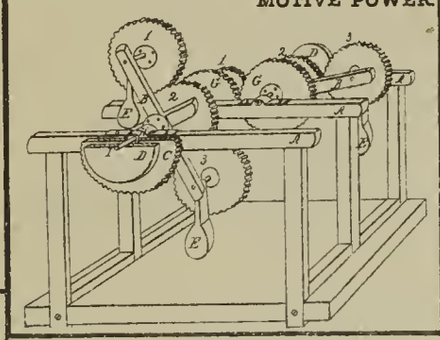
106,535. VINCENT S. BARBER.
HARVESTERS



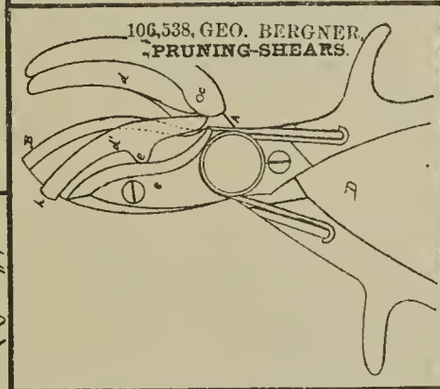
106,536. JOSEPH BARKER. **MACHINE FOR SAND-PAPERING MOLDINGS.**



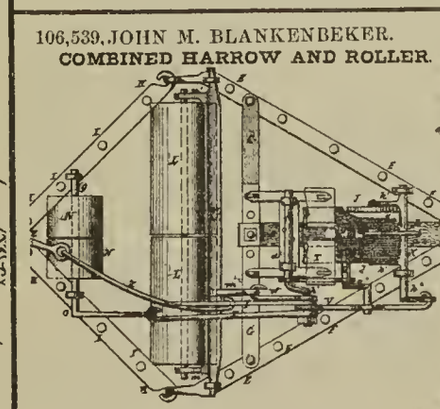
106,537. CHARLES BATCHELLER.
MOTIVE POWER.



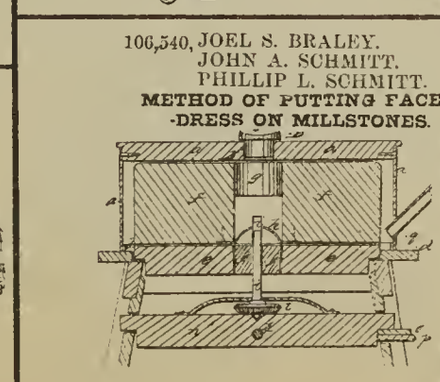
106,538, GEO. BERGNER.
PRUNING-SHEARS.

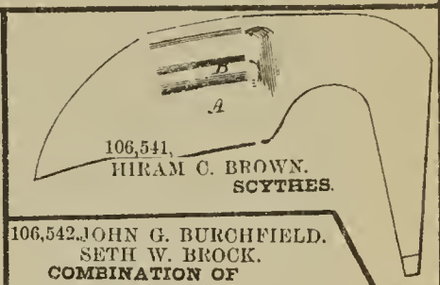


106,539. JOHN M. BLANKENBEKER.
COMBINED HARROW AND ROLLER.



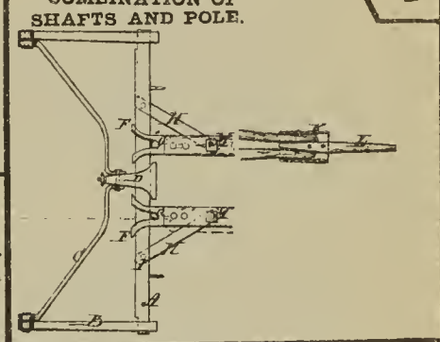
106,540, JOEL S. BRALEY.
JOHN A. SCHMITT.
PHILLIP L. SCHMITT.
METHOD OF PUTTING FACE -DRESS ON MILLSTONES.



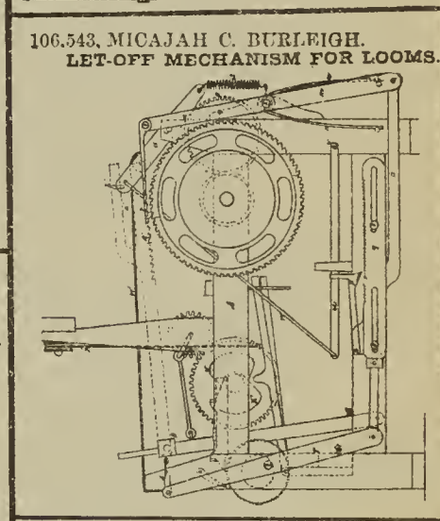


106,541,
HIRAM C. BROWN.
SCYTHES.

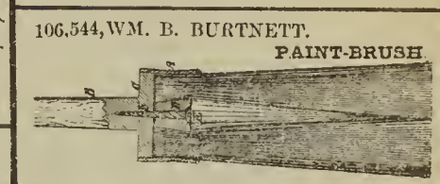
106,542. JOHN G. BURCHFIELD.
SETH W. BROCK.
COMBINATION OF SHAFTS AND POLE.



106,543. MICAJAH C. BURLEIGH.
LET-OFF MECHANISM FOR LOOMS.

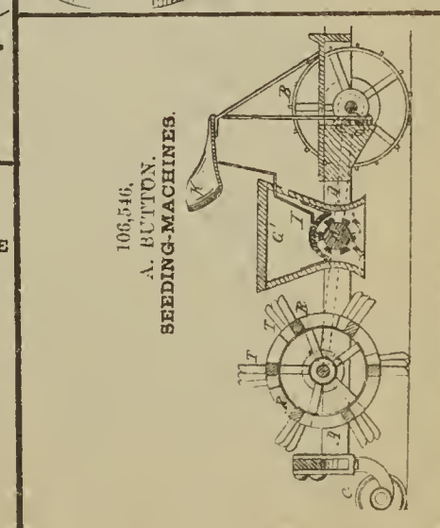


106,544, WM. B. BURTNETT.
PAINT-BRUSH.

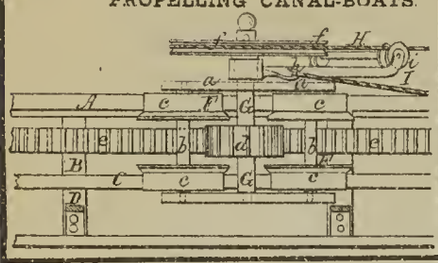


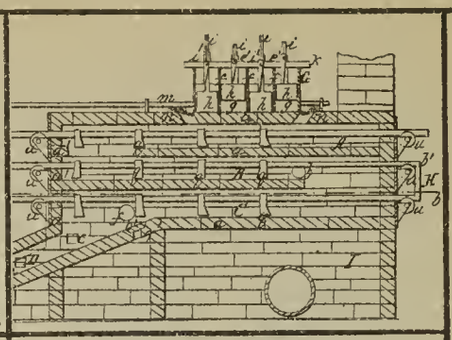
106,545,
WILLIAM B. BURTNETT
FERRULES FOR PAINT-BRUSHES.

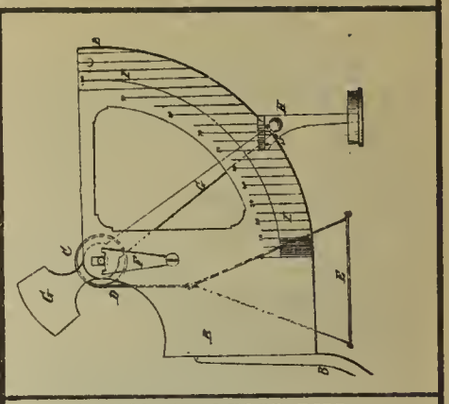
106,546.
A. BUTTON.
SEEDING-MACHINES.



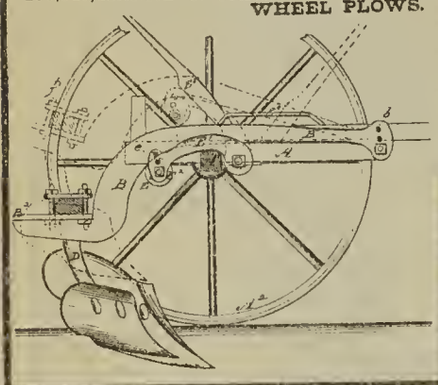
106,547, JOHN B. CALNAN. DEVICE FOR PROPELLING CANAL-BOATS.



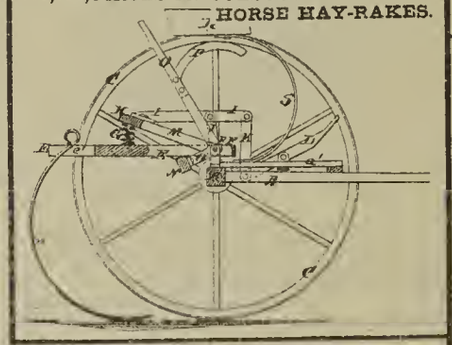




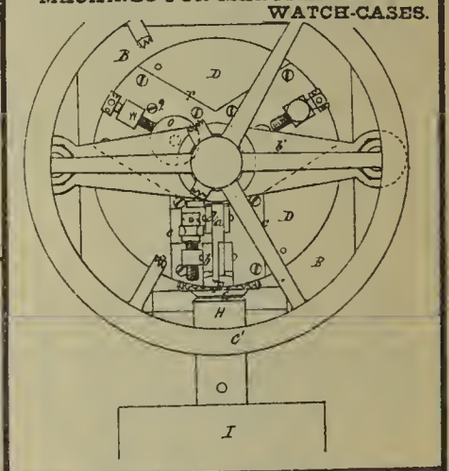
106,548, HENRY C. CARR. WHEEL PLOWS.



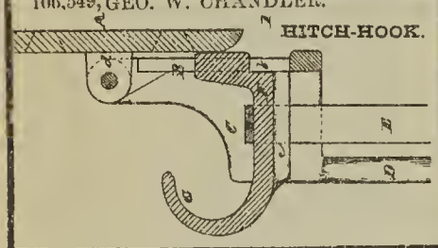
106,554, JAMES M. COLSON. HORSE HAY-RAKES.

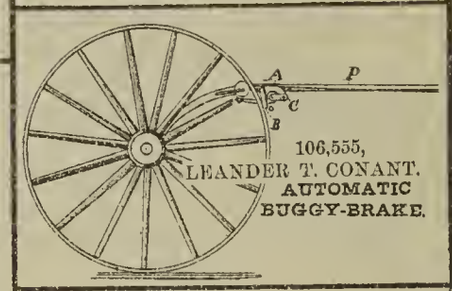


106,561, THOS. BRADFORD DILL. MACHINES FOR MANUFACTURING WATCH-CASES.



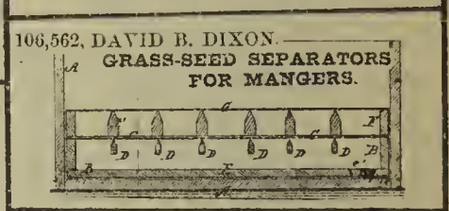
106,549, GEO. W. CHANDLER. HITCH-HOOK.



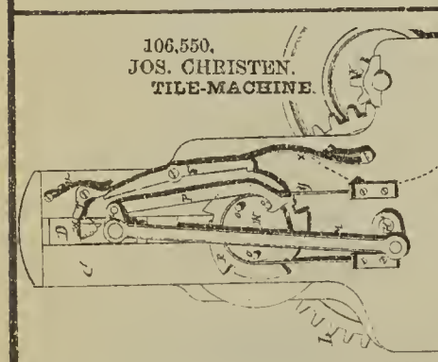


106,555, LEANDER T. CONANT. AUTOMATIC BUGGY-BRAKE.

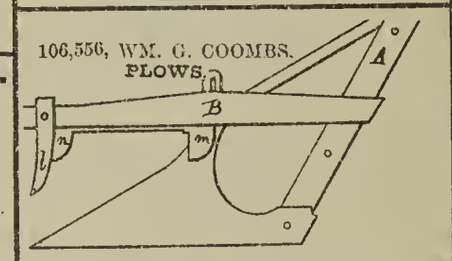
106,562, DAVID B. DIXON. GRASS-SEED SEPARATORS FOR MANGERS.



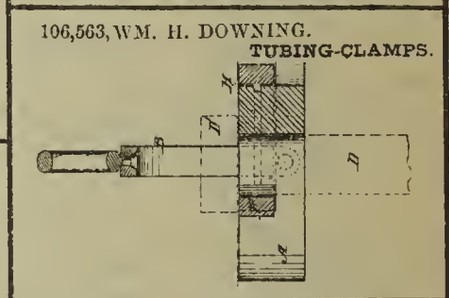
106,550, JOS. CHRISTEN. TILE-MACHINE.



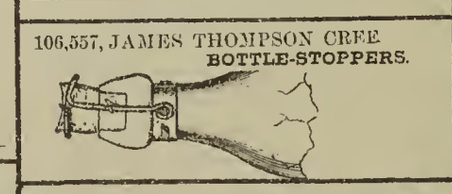
106,556, WM. G. COOMBS. PLOWS.



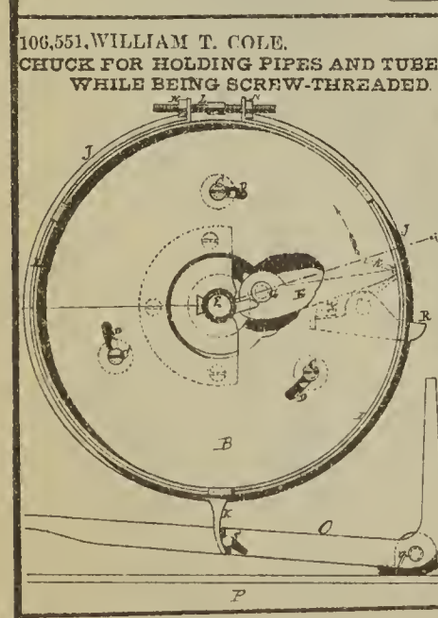
106,563, WM. H. DOWNING. TUBING-CLAMPS.

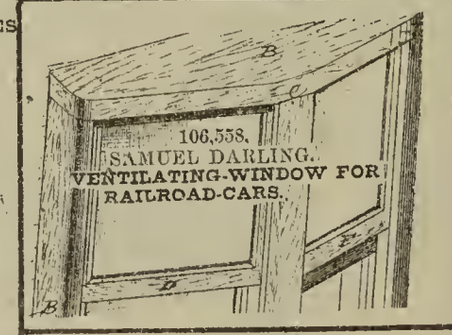


106,557, JAMES THOMPSON CREE. BOTTLE-STOPPERS.



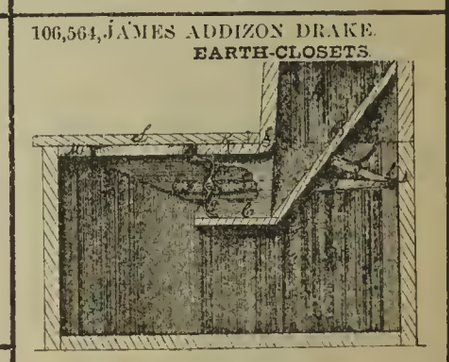
106,551, WILLIAM T. COLE. CHUCK FOR HOLDING PIPES AND TUBES WHILE BEING SCREW-THREADED.



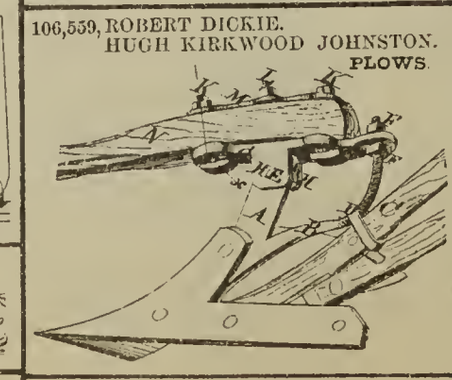


106,558, SAMUEL DARLING. VENTILATING-WINDOW FOR RAILROAD-CARS.

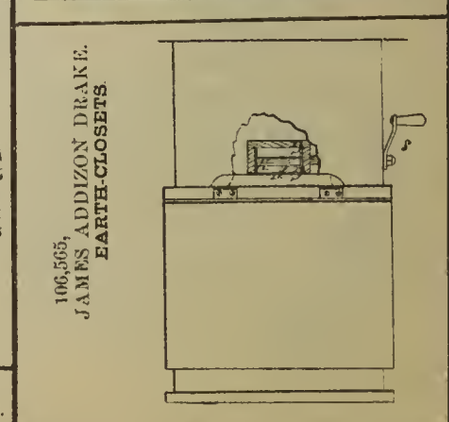
106,564, JAMES ADDIZON DRAKE. EARTH-CLOSETS.



106,559, ROBERT DICKIE. HUGH KIRKWOOD JOHNSTON. PLOWS.



106,565, JAMES ADDIZON DRAKE. EARTH-CLOSETS.

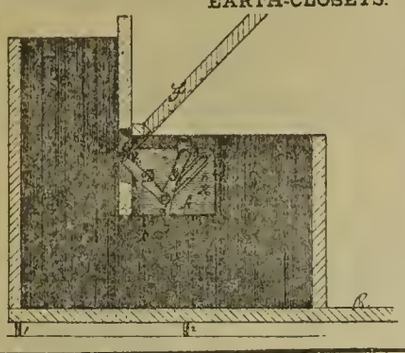


106,552, WM. F. COLLIER. DISH-STAND.

106,553, JOHN COLLOM. ROASTING-FURNACES FOR ORES.

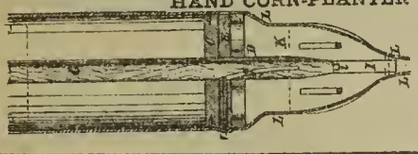
106,560, GEO. W. DICKINSON. WEIGHING-SCALES.

106,566, JAMES ADDIZON DRAKE.
EARTH-CLOSETS.

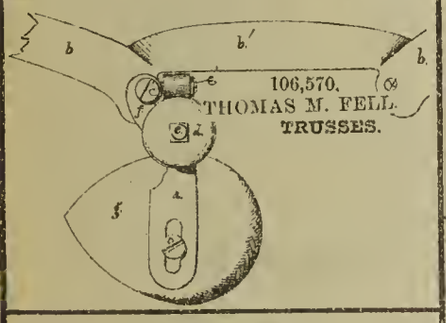


106,567,
WM. F. DRAPER.
SPINDLE-BOLSTER.

106,568, HUGH DYER.
HAND CORN-PLANTER

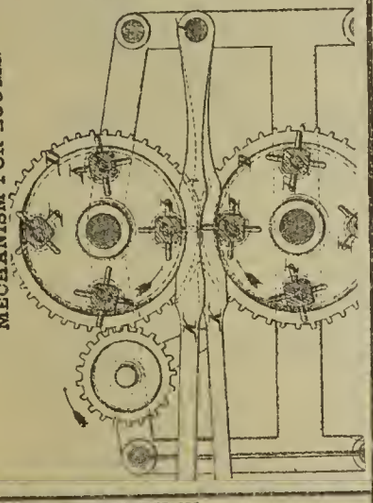


106,569, WILLIAM ELMER.
MANUFACTURE OF INFLAMMABLE GASES FOR FUEL, &c.

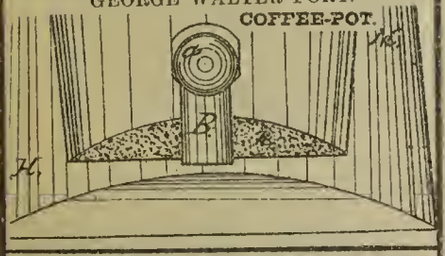


106,570,
THOMAS M. FELL.
TRUSSES.

106,571, ALBERT R. FIELD.
HARNESS-OPERATING MECHANISM FOR LOOMS.

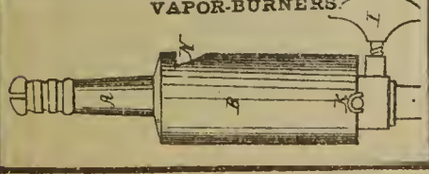


106,572, WILLIAM FUNK.
GEORGE WALTER PORT.
COFFEE-POT.

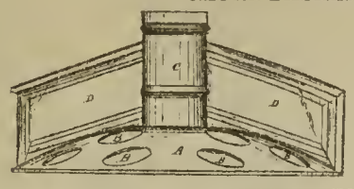


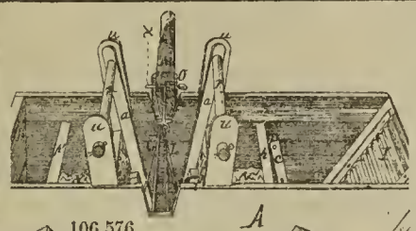
106,573, LEWIS L. GEBHART, M. D.
MEDICAL COMPOUND.

106,574, ERNEST GILLERT.
VAPOR-BURNERS.

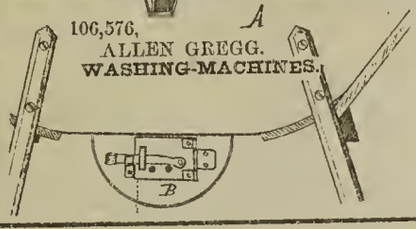


106,575, WM. H. H. GORHAM.
BURETT H. WILLIAMS.
CHURN-DASHERS.

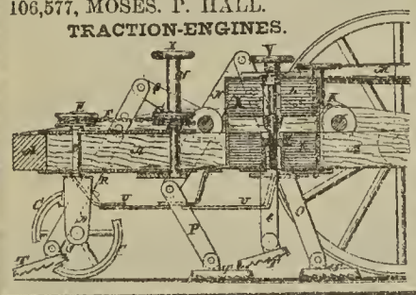




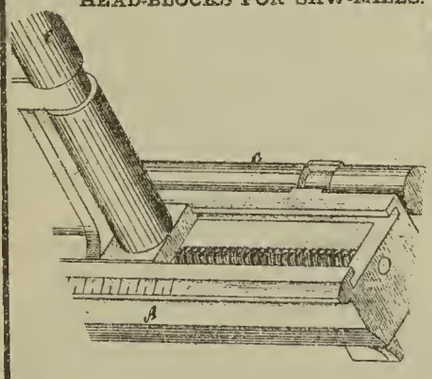
106,576,
ALLEN GREGG.
WASHING-MACHINES.



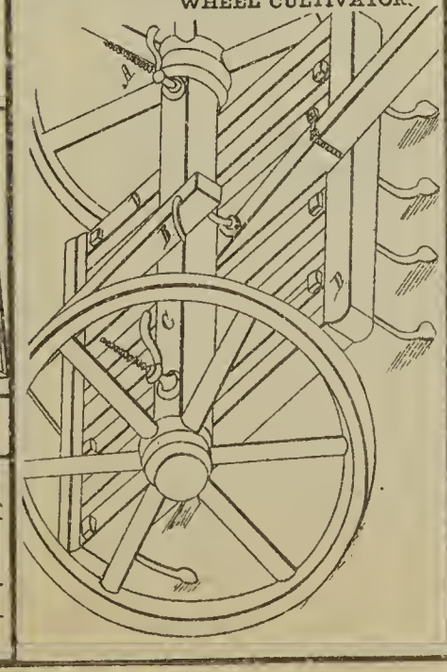
106,577, MOSES. P. HALL.
TRACTION-ENGINES.



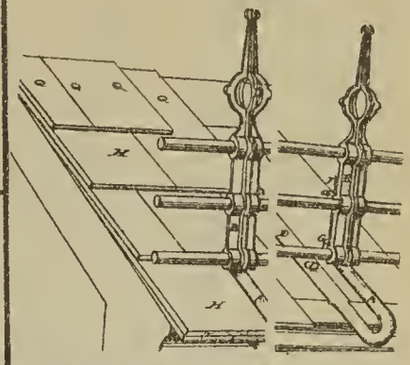
106,578, JACOB W. HANDSHY.
HEAD-BLOCKS FOR SAW-MILLS.



106,579, E. D. HATCH.
WHEEL CULTIVATOR.



106,580,
SAMUEL R. HATHORN.
GUARDS FOR ROOFS.



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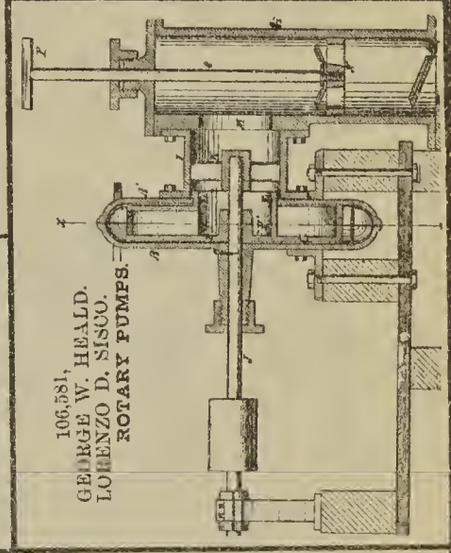
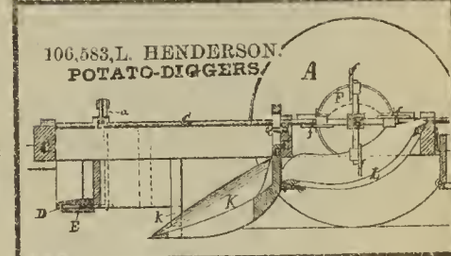
GEORGE W. HEALD.
LORENZO D. SISCO.
ROTARY PUMPS.



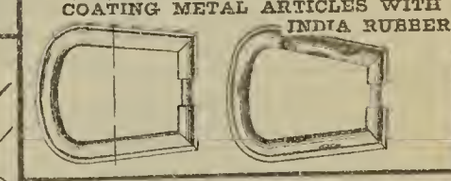
106,582, CHAS. HEBEL.
INK OR WRITING-FLUID.

106,583, L. HENDERSON.
POTATO-DIGGERS.

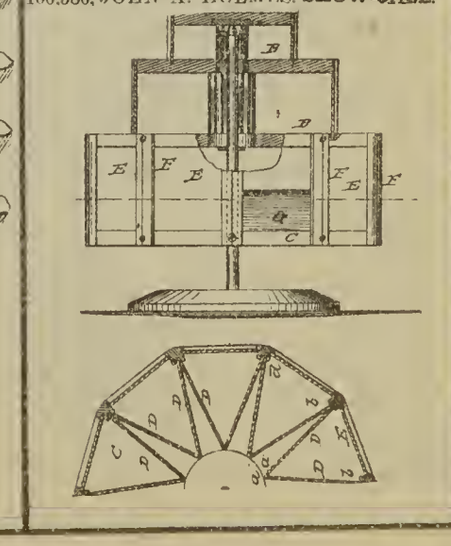


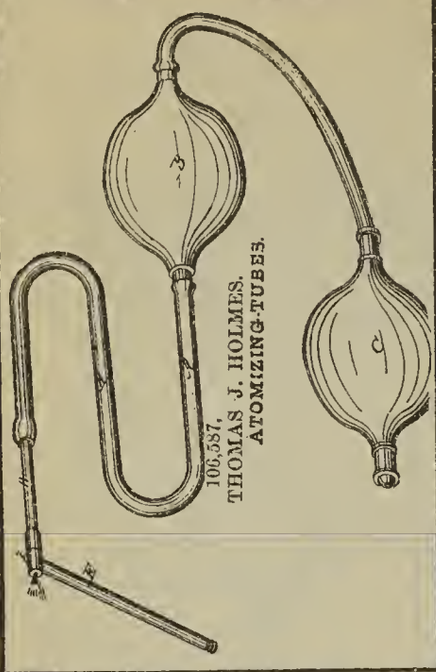
106,584, HERMON A. HIBBARD.
DRESSING OR TAWING SKINS.

106,585, CONSTANTINE HINGHER.
COATING METAL ARTICLES WITH INDIA RUBBER.

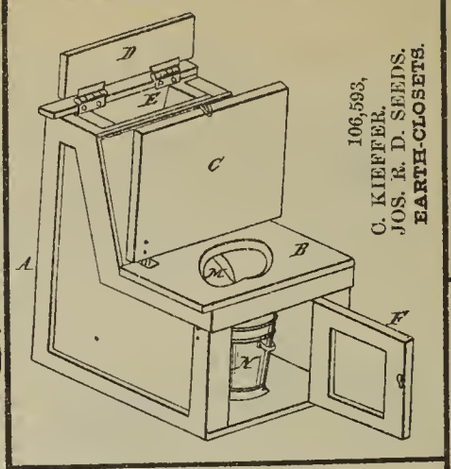


106,586, JOHN A. HOLMES. SHOW-CASE.

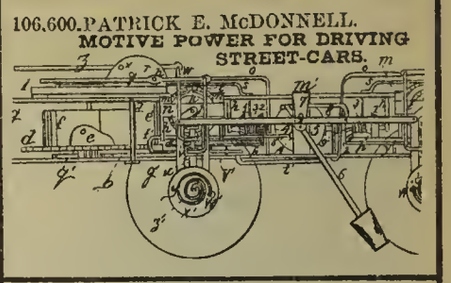




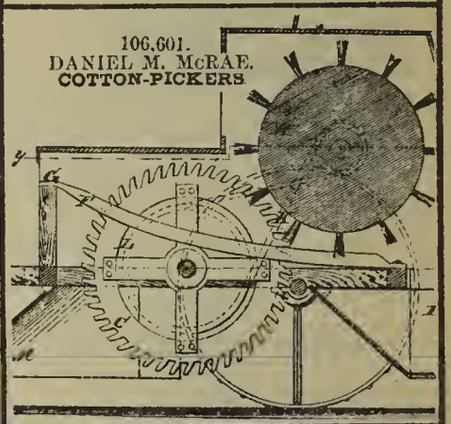
106,587, THOMAS J. HOLMES. ATOMIZING-TUBES.



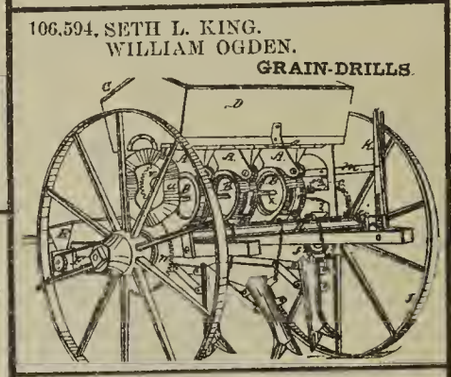
106,593, C. KIEFFER. JOS. R. D. SEELS. EARTH-CLOSETS.



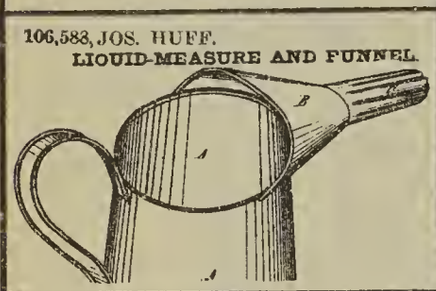
106,600. PATRICK E. McDONNELL. MOTIVE POWER FOR DRIVING STREET-CARS.



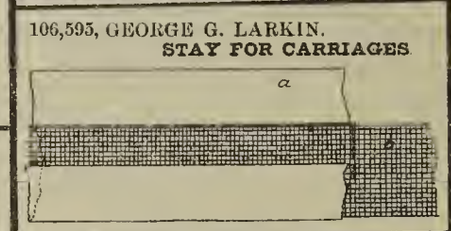
106,601. DANIEL M. McRAE. COTTON-PICKERS.



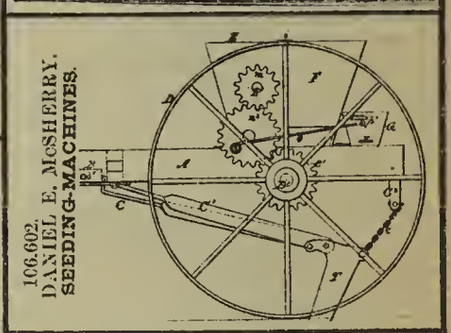
106,594, SETH L. KING. WILLIAM OGDEN. GRAIN-DRILLS.



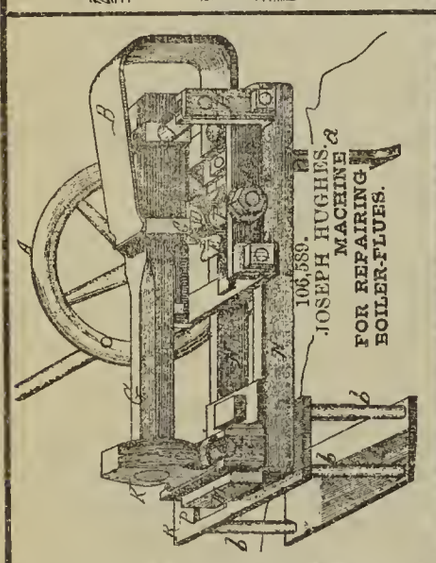
106,583, JOS. HUFF. LIQUID-MEASURE AND FUNNEL.



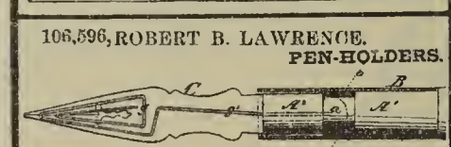
106,595, GEORGE G. LARKIN. STAY FOR CARRIAGES.



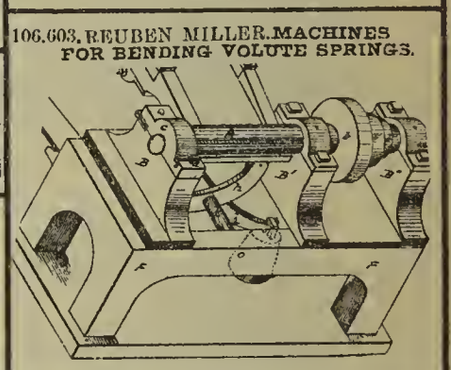
106,602. DANIEL E. McSHERRY. SEEDING-MACHINES.



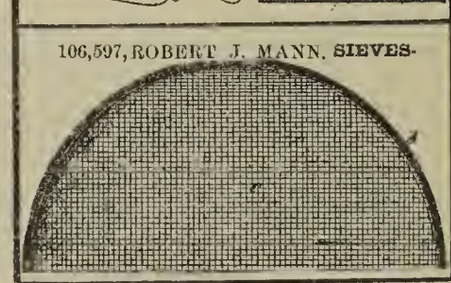
106,589. JOSEPH HUGHES. MACHINE FOR REPAIRING BOILER-FLUES.



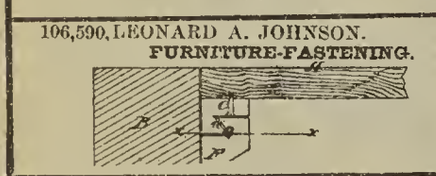
106,596, ROBERT B. LAWRENCE. PEN-HOLDERS.



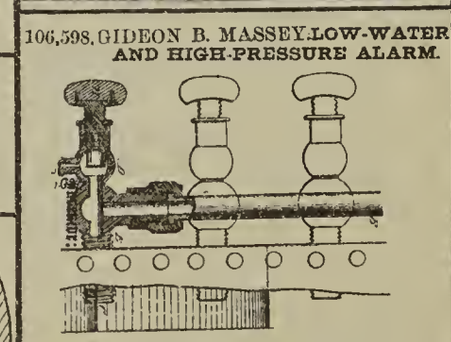
106,603. REUBEN MILLER. MACHINES FOR BENDING VOLUTE SPRINGS.



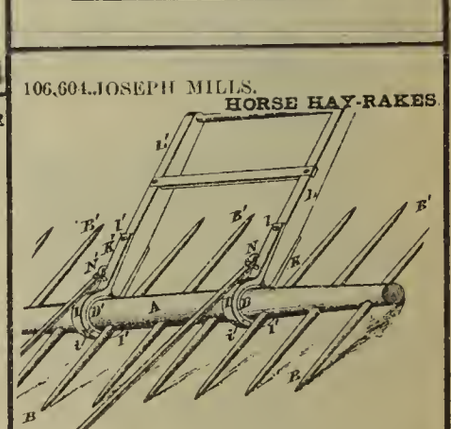
106,597, ROBERT J. MANN. SIEVES.



106,590, LEONARD A. JOHNSON. FURNITURE-FASTENING.

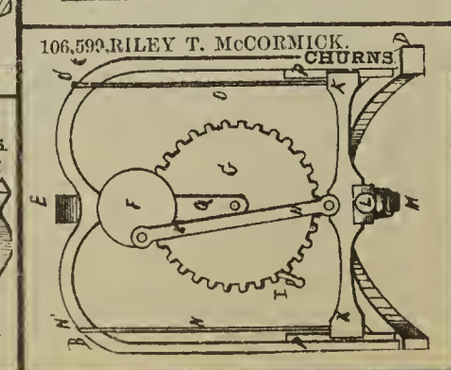


106,598, GIDEON B. MASSEY. LOW-WATER AND HIGH-PRESSURE ALARM.

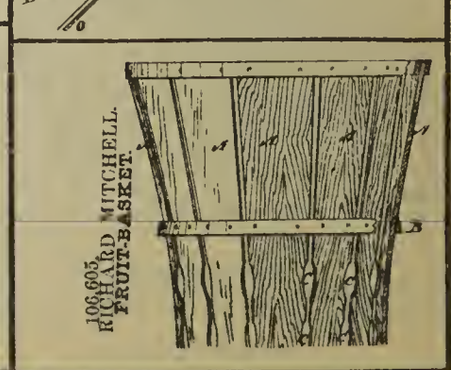


106,604. JOSEPH MILLS. HORSE HAY-RAKES.

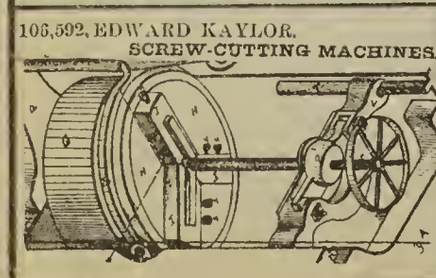
106,591, NATHANIEL JONES. LASTS.



106,599. RILEY T. McCORMICK. CHURNS.

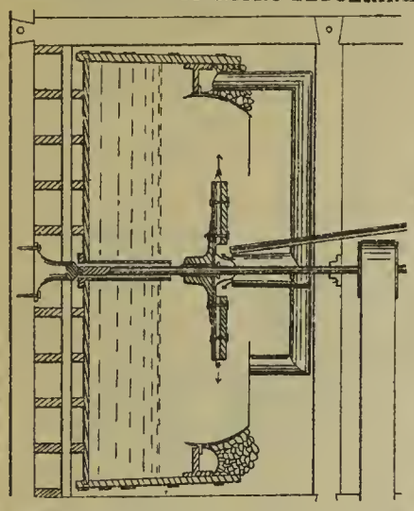


106,605. RICHARD MITCHELL. FRUIT-BASKET.

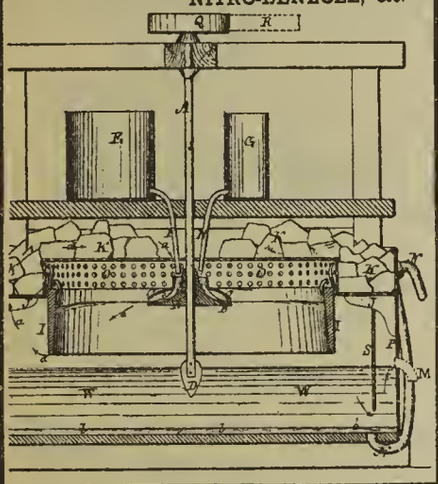


106,592, EDWARD KAYLOR. SCREW-CUTTING MACHINES.

106,606, GEO. M. MOWBRAY.
APPARATUS FOR THE MANUFACTURE OF NITRO-GLYCERINE



106,607, GEO. M. MOWBRAY.
APPARATUS FOR THE MANUFACTURE OF NITRO-GLYCERINE, NITRO-BENZOLE, &c.



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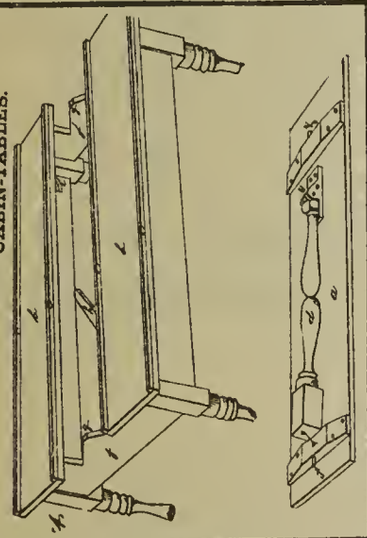
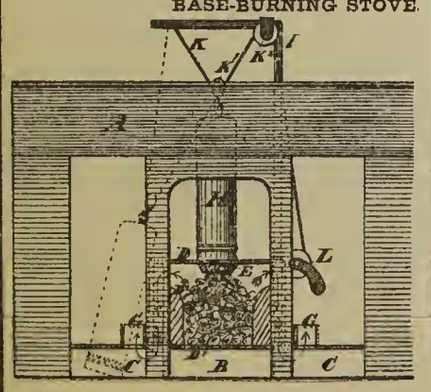
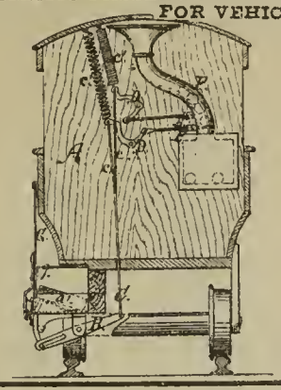
CABIN-TABLES.

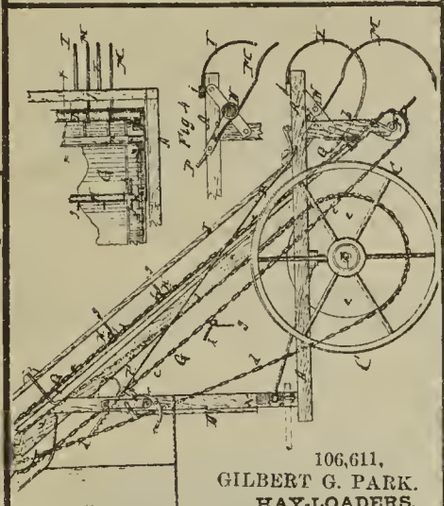


106,609, BENJAMIN NOTT.
BASE-BURNING STOVE.



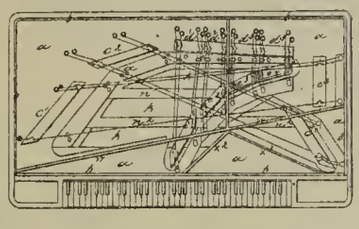
106,610, CHARLES OTTINGER.
AUTOMATIC PASSENGER-REGISTER FOR VEHICLES.



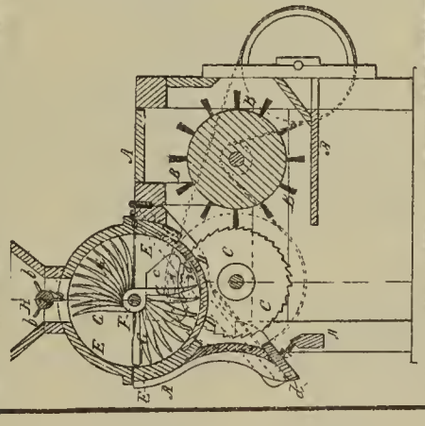


106,611, GILBERT G. PARK.
HAY-LOADERS.

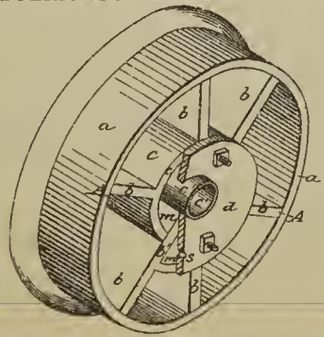
106,612, SAML. W. PARKER. PIANOS.



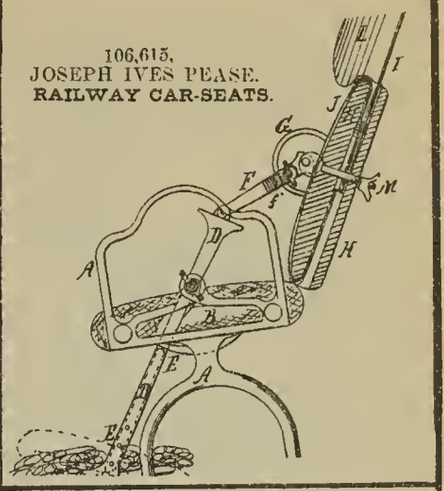
106,613, GEOR. W. PAYNE.
GIN FOR LINTING COTTON.



106,614, S. E. PEART.
LUBRICATOR FOR LOOSE WHEELS.



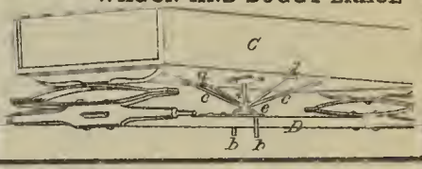
106,615, JOSEPH IVES PEASE.
RAILWAY CAR-SEATS.



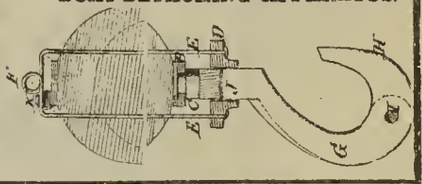
106,616, ROBERT-PINKNEY.
PRODUCTION OF COLORS FOR DYES, INKS, &c., FROM ANILINE.

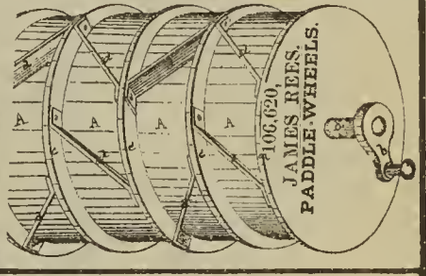
106,617, ISAAC L. PLUMER.
MATERIAL FOR PASTE FOR BOOKBINDERS AND OTHERS.

106,618, NICHOLAS RAMSEYER.
WAGON AND BUGGY-BRACE

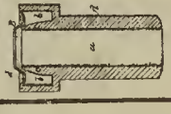


106,619, NATHANIEL M. RAY.
BOAT-DETACHING APPARATUS.

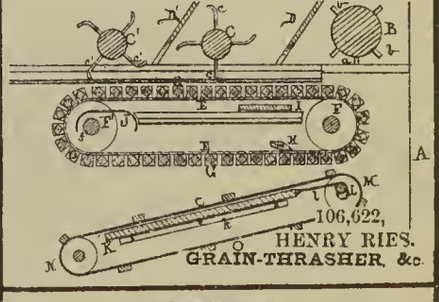




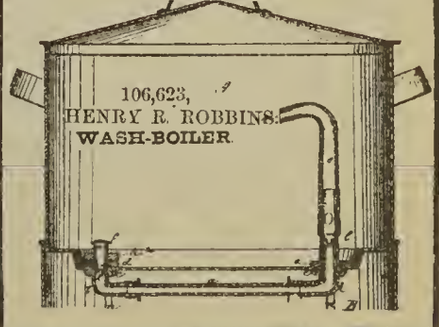
106,620, JAMES REES.
PADDLE-WHEELS.



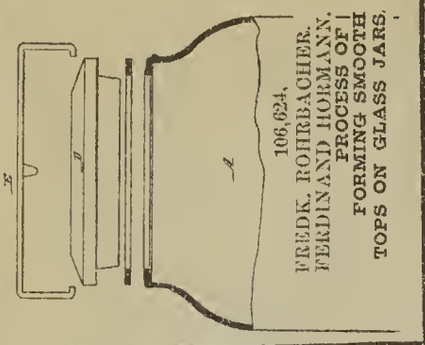
106,621, ISAAC P. RICHARDS.
SPINDLE-BOLSTER.



106,622, HENRY RIES.
GRAIN-THRASHER, &c.



106,623, HENRY R. ROBBINS.
WASH-BOILER.

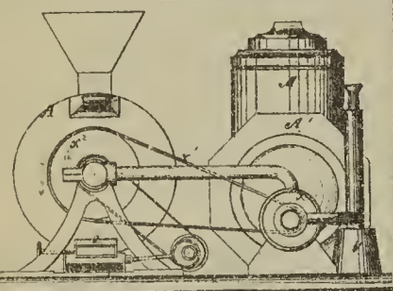


106,624, FREDK. ROHRBACHER. FERDINAND HORMANN. PROCESS OF FORMING SMOOTH TOPS ON GLASS JARS.

106,625, ALEXANDER J. SHELDON. PRESERVING WOOD.

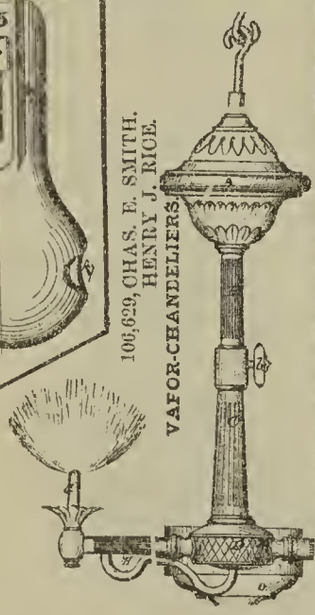
106,626, THOS. SIM. MANUFACTURE OF FERTILIZERS

106,627, EVAN SKELLY. MACHINES FOR DECORTICATING AND DRYING GRAIN.

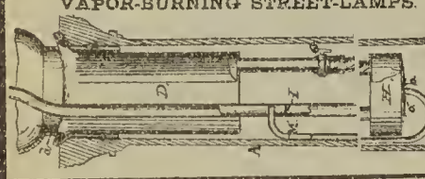


106,628, CHARLES W. SMALL. REED ORGAN-PIPES.

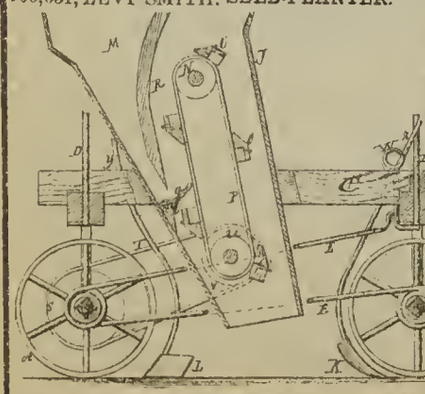
106,629, CHAS. E. SMITH. HENRY J. RICE. VAPOR-CHANDELIERS.



106,630, CHAS. E. SMITH. HENRY J. RICE. VAPOR-BURNING STREET-LAMPS.

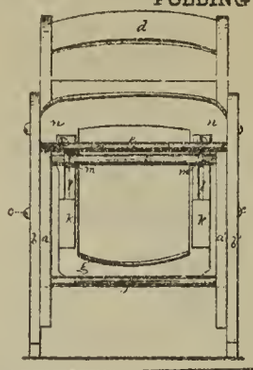


106,631, LEVI SMITH. SEED-PLANTER.



106,632, LEWIS H. SPEAR. PRESERVING MEAT.

106,633, ALEX. W. STEWART. FOLDING CHAIR.



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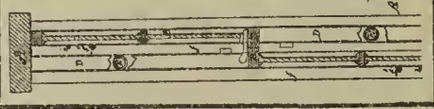

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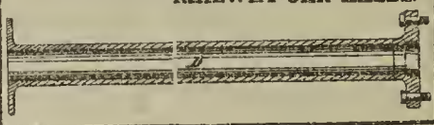
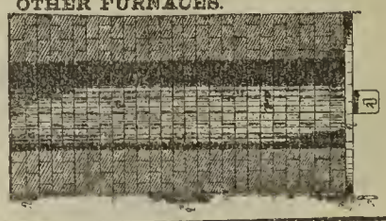
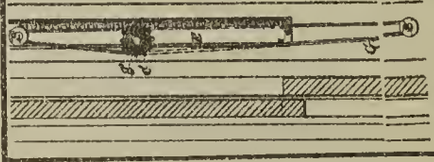


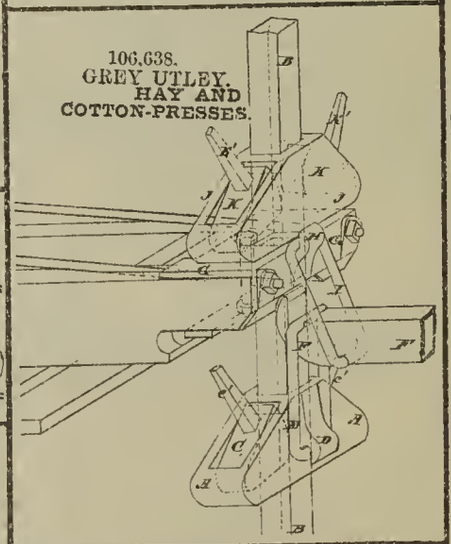
106,636. W. SWINDELL. STACK FOR PUDDLING, BOILING, AND OTHER FURNACES.



106,637, ALBERT E. TRIPP. CURTAIN-FIXTURE.



106,638. GREY UTLEY. HAY AND COTTON-PRESSES.



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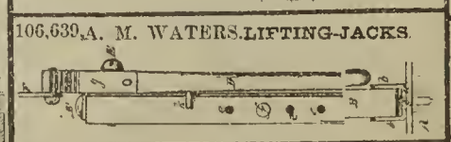
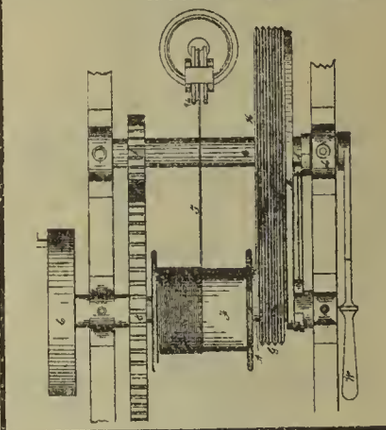


106,640, ISAIAH M. WEST. FENCES.

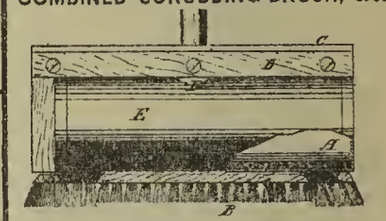
106,641, W. H. WILKINSON. LOGOTYPES.

106,642, WILLIAM C. WILLIAMSON. HOISTING-MACHINE.



106,643, DAVID S. WOOD. COMBINATION OF OCHERS FOR PAINT.

106,644, EUGENE KINCAID WOOD. COMBINED SCRUBBING-BRUSH, &c.



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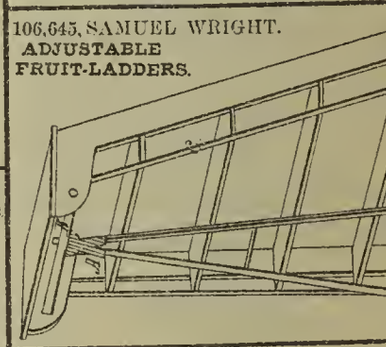

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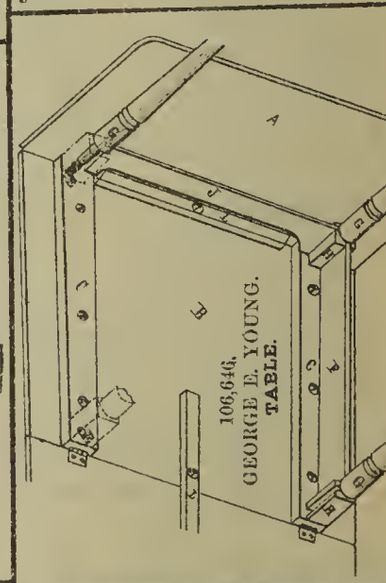
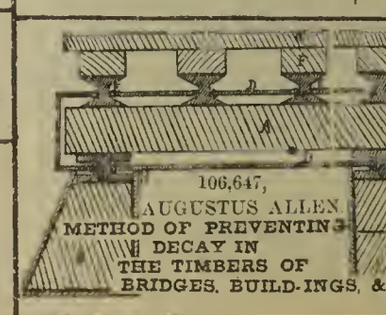
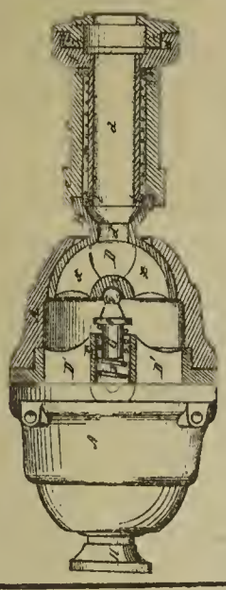


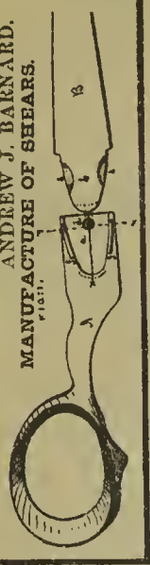
106,647, AUGUSTUS ALLEN. METHOD OF PREVENTING DECAY IN THE TIMBERS OF BRIDGES, BUILDINGS, &c.



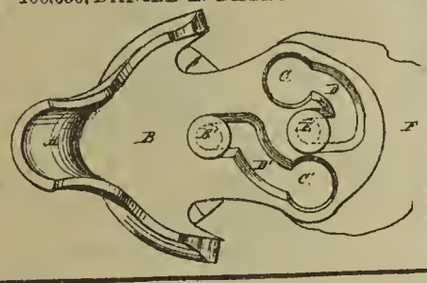
106,648, SAMUEL A. APPOLD. STEAM COUPLING FOR RAILROAD CARS.



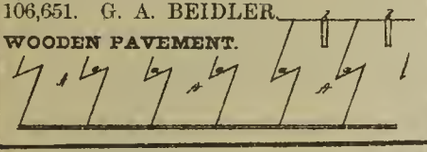
106,649, WM. B. BARNARD. ANDREW J. BARNARD. MANUFACTURE OF SHEARS.



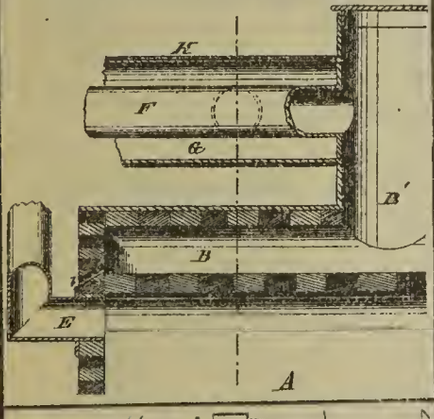
106,650, DANIEL L. BATES. STOVE-LEG.



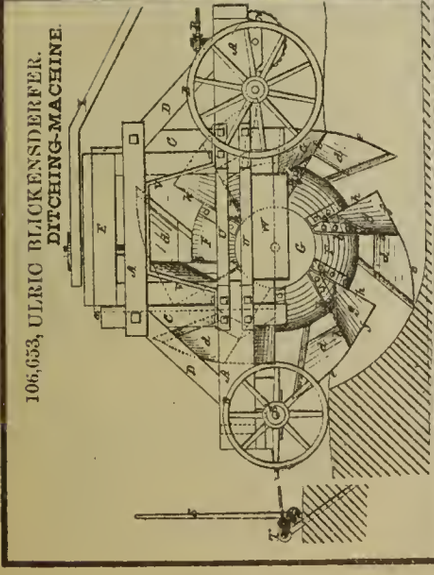
106,651. G. A. BEIDLER. WOODEN PAVEMENT.



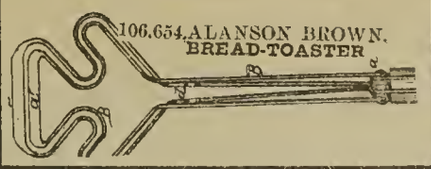
106,652, MICHAEL BER. JACKET FOR HEATING-PIPES.



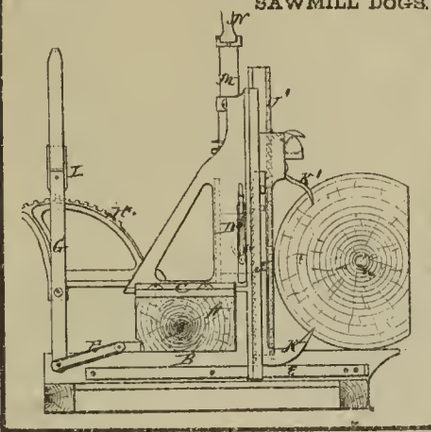
106,653, ULRIC BLICKENSDERFER. DITCHING-MACHINE.



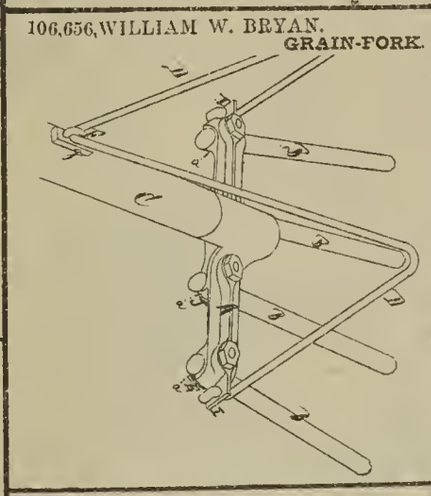
106,654, ALANSON BROWN. BREAD-TOASTER.



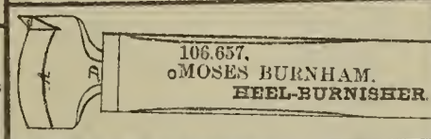
106,655, JOHN S. BROWN. SAWMILL DOGS.



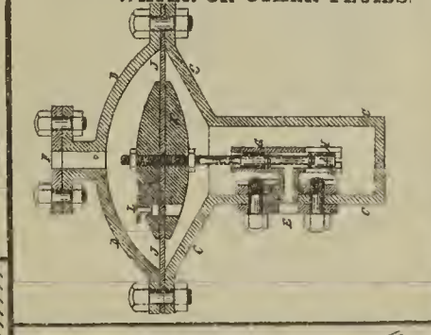
106,656, WILLIAM W. BRYAN. GRAIN-FORK.



106,657, MOSES BURNHAM. HEEL-BURNISHER.



106,658, E. A. CHAMEROY. APPARATUS FOR GAUGING OR REGULATING THE FLOW OF WATER OR OTHER FLUIDS.



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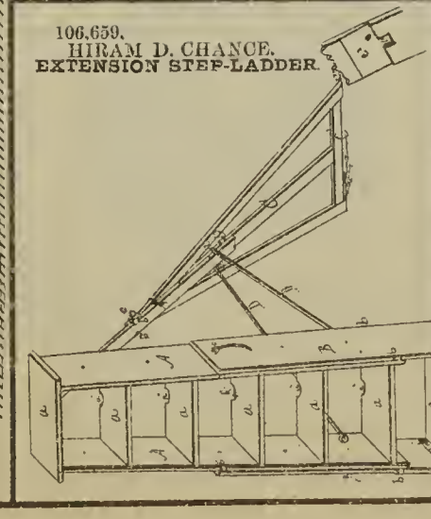
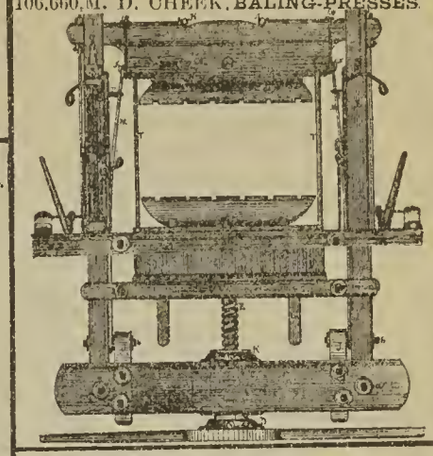


106,660, M. D. CHEEK. BALING-PRESSES.



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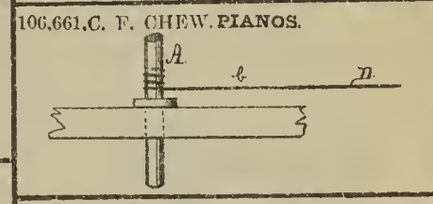
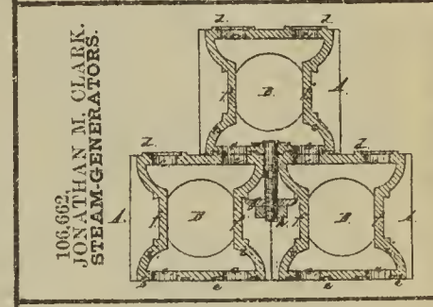


106,662, JONATHAN M. CLARK. STEAM-GENERATORS.



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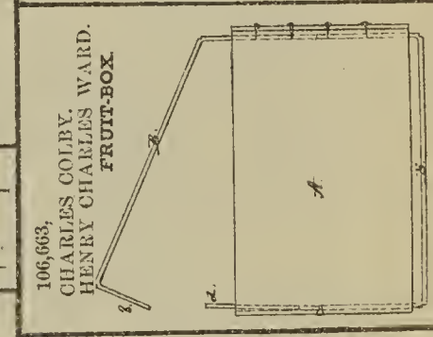
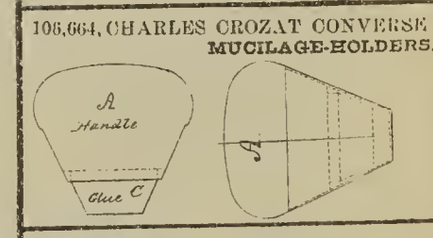


106,664, CHARLES CROZAT CONVERSE. MUCILAGE-HOLDERS.



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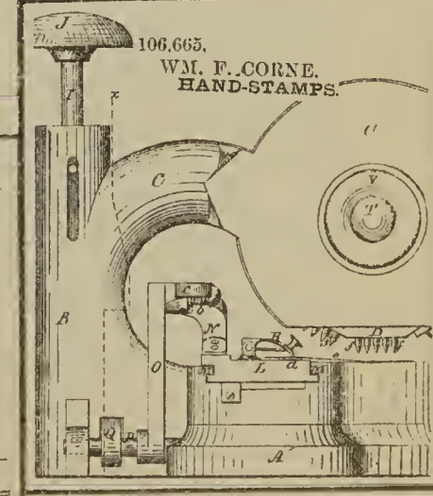
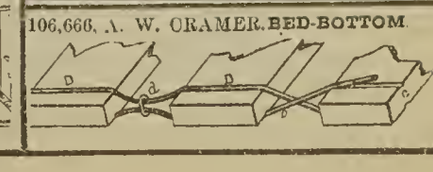
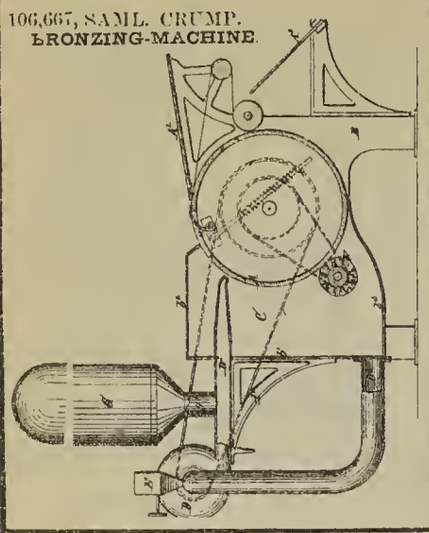


106,666, A. W. CRAMER. BED-BOTTOM.



106,667, SAML. CRUMP.
BRONZING-MACHINE.



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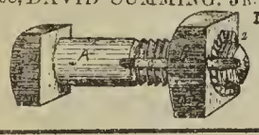
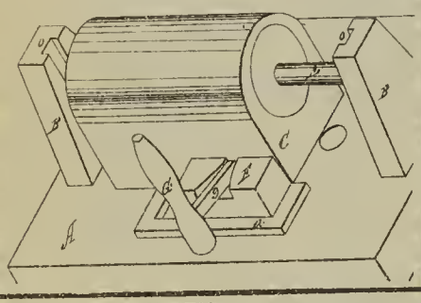
NUT-LOCK.



106,669, FRANCIS CURTIS.
SLIDE-VALVE FOR STEAM-ENGINES.



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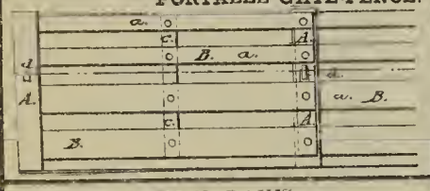
PORTABLE GATE-FENCE.



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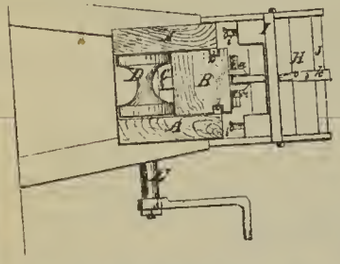
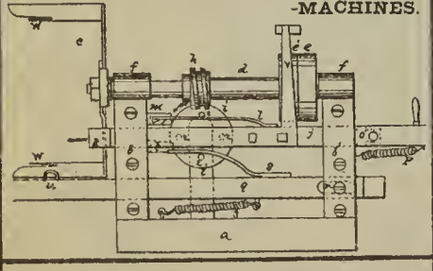
MACHINE FOR CUTTING HOOPS.

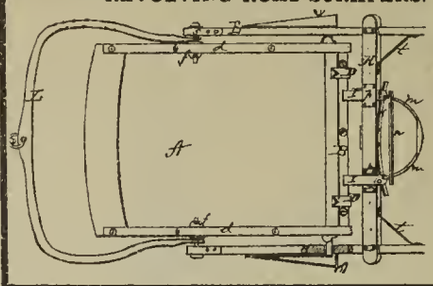


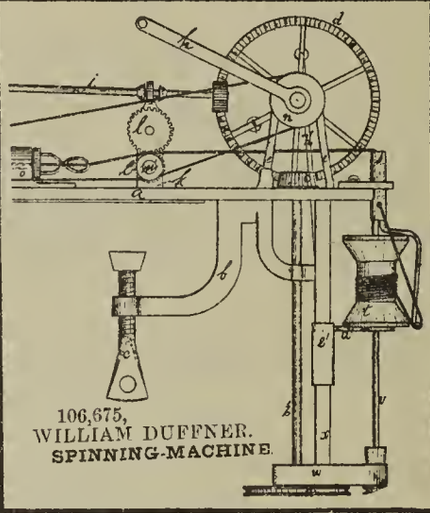
106,672, EDMOND W. DEAN.
STOP-MOTION FOR BRAIDING-MACHINES.



106,673, HENRY DE ZAVALA.
PUMP-ROD CONNECTIONS FOR DEEP WELLS.

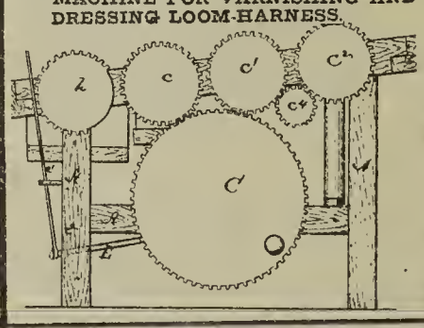
106,674, EDWARD M. DOTY.
JOEL L. LITTLE.
PETER A. SCHINDLER.
REVOLVING ROAD-SCRAPERS.





106,675,
WILLIAM DUFFNER.
SPINNING-MACHINE.

106,676, EDWARD J. ELLIS.
MACHINE FOR VARNISHING AND DRESSING LOOM-HARNESS.



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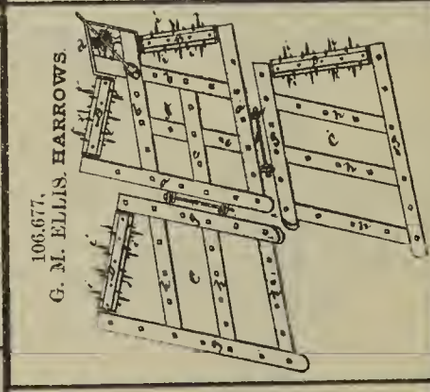
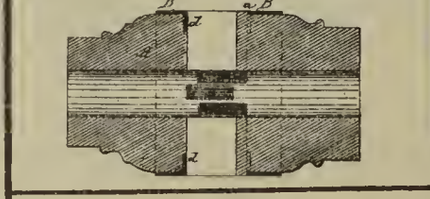
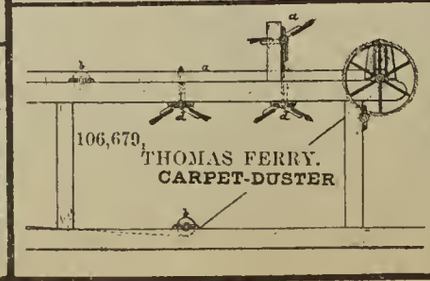
G. M. ELLIS, HARROWS.



106,678, JOHN M. EMMERICH.
HUBS FOR CARRIAGE-WHEELS.





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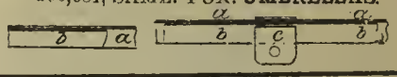
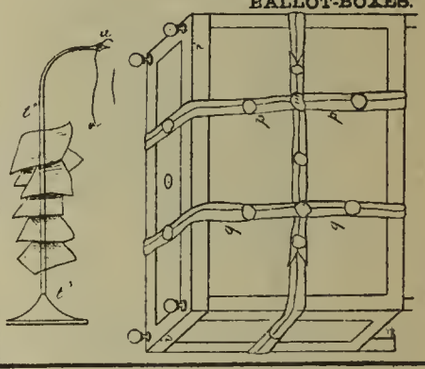
THOMAS FERRY.
CARPET-DUSTER

106,680, SAMUEL M. FIREY.
HAIR-BRUSH.

106,681, SAML. FOX. UMBRELLAS.



106,682, G. A. FREBAULT.
BALLOT-BOXES.



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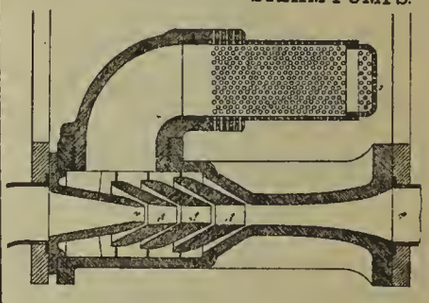
STEAM-PUMPS.



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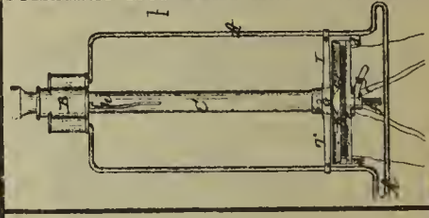
COMBINED MOP-HEAD AND WRINGER.



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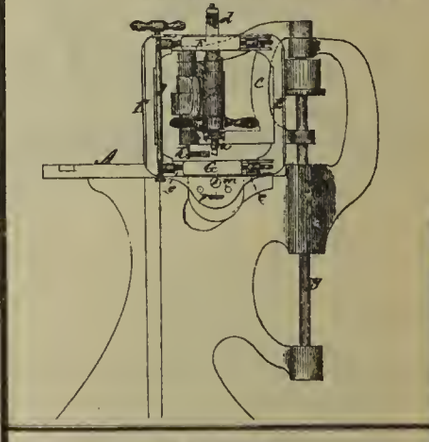
WOOD-MOLDING MACHINES.



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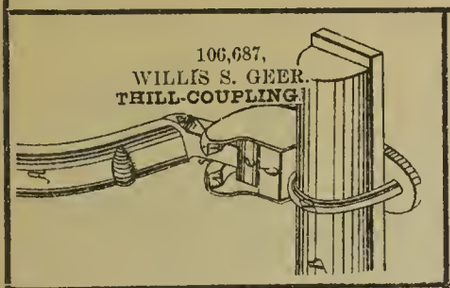
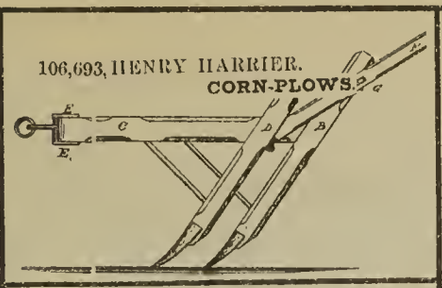
APPARATUS FOR COOLING BEER.


106,687, WILLIS S. GEER. THILL-COUPLING.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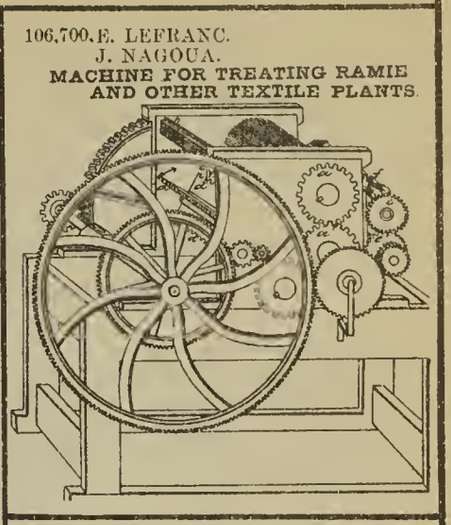
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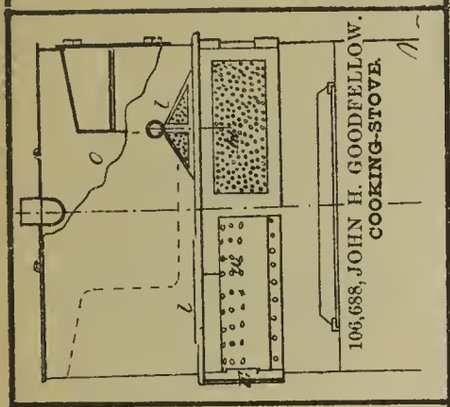
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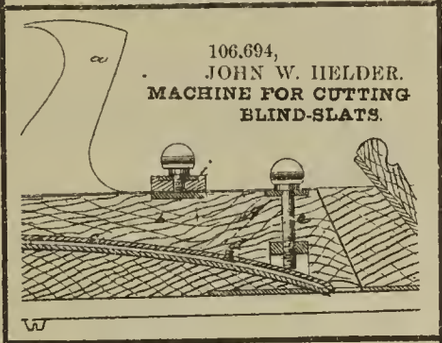
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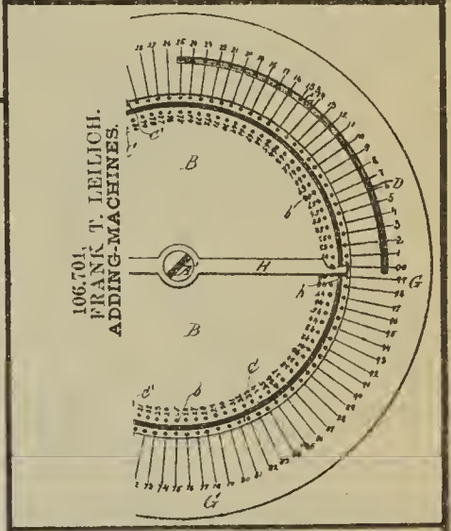
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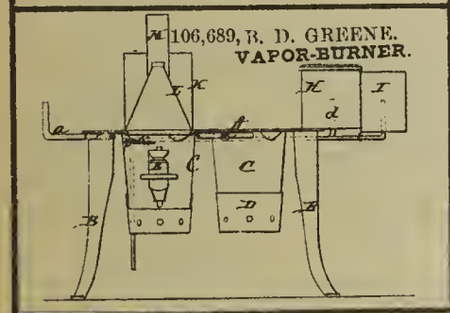
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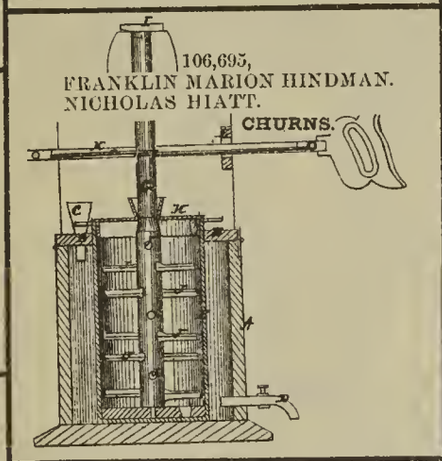
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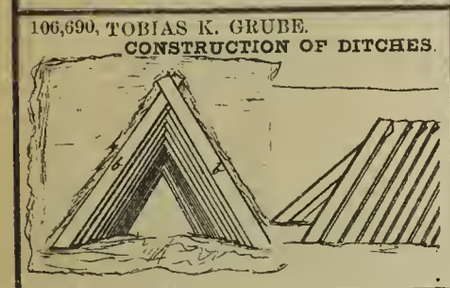
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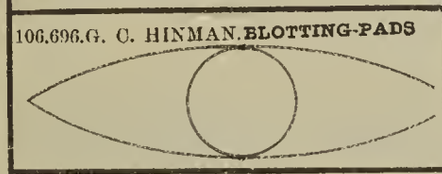
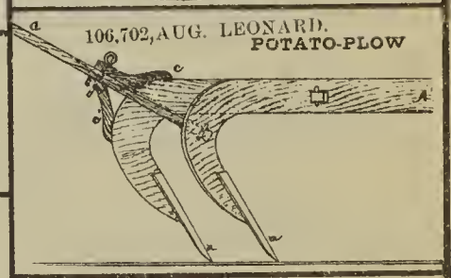

106,696, G. C. HINMAN. BLOTTING-PADS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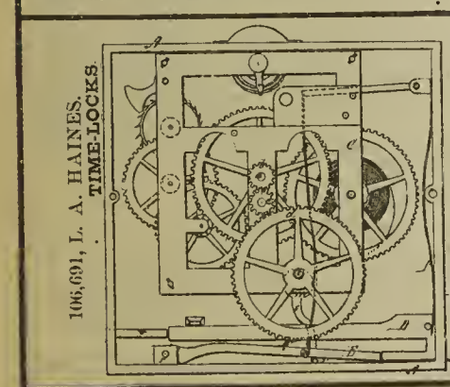
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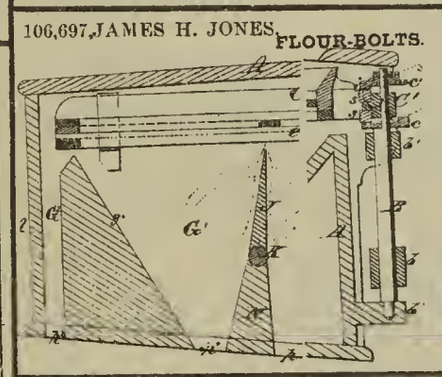
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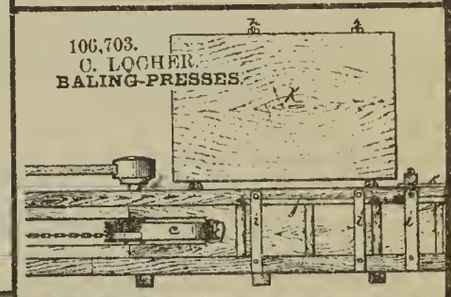
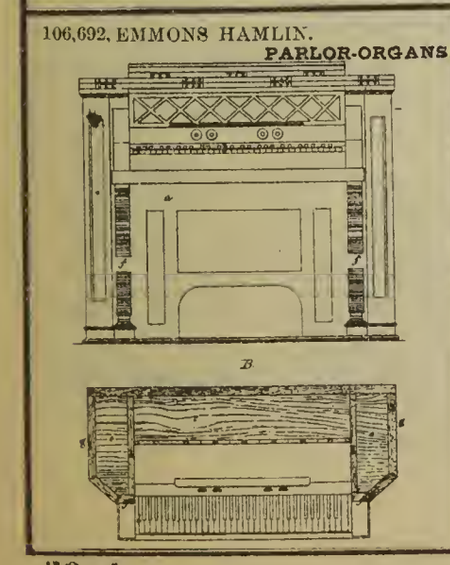
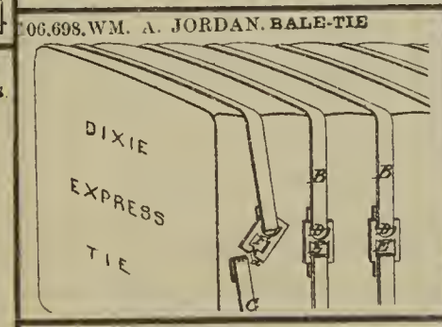

106,703. C. LOCHER. BALING-PRESSES.


106,692, EMMONS HAMLIN. PARLOR-ORGANS.



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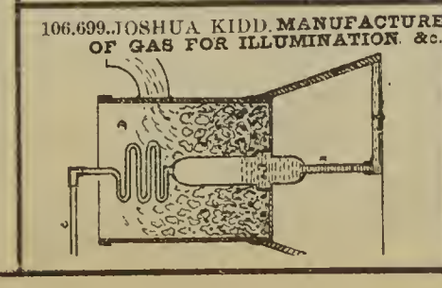
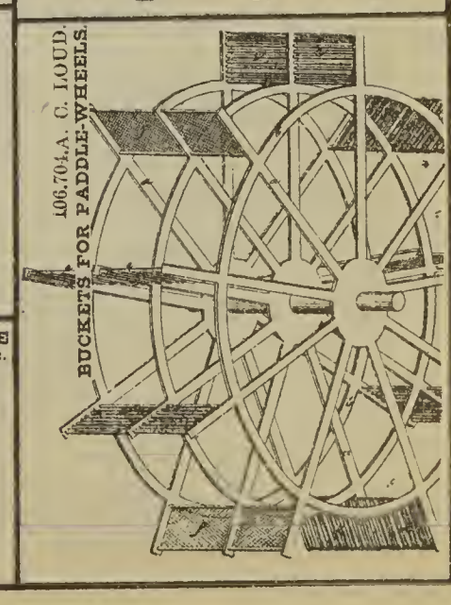
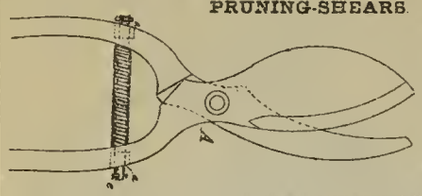

106,699, JOSHUA KIDD. MANUFACTURE OF GAS FOR ILLUMINATION, &c.


106,704, A. C. LOUD. BUCKETS FOR PADDLE-WHEELS.

106,705, ENOCH J. MARSTERS.
PRUNING-SHEARS.



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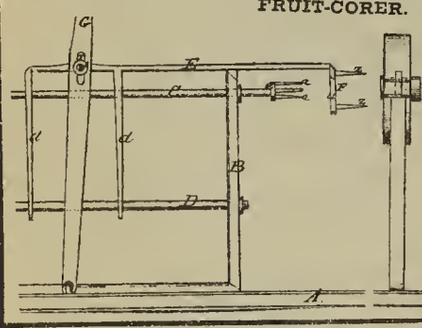
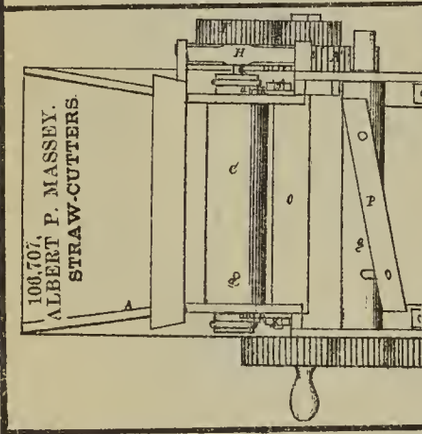
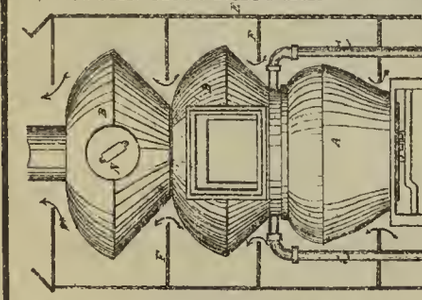
FRUIT-CORER.



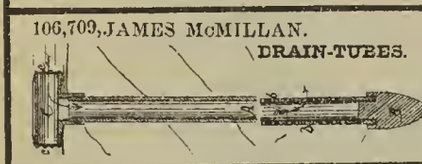
106,707, ALBERT P. MASSEY.
STRAW-CUTTERS.



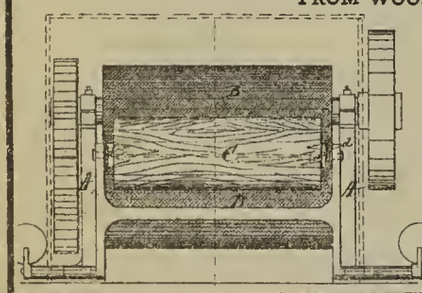
106,708, JOHN McCOY. HOT-AIR FURNACE



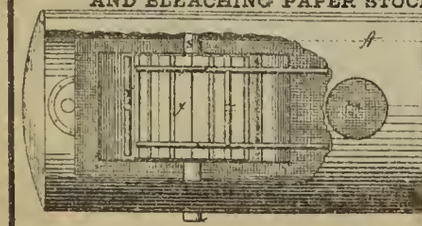
106,709, JAMES McMILLAN.
DRAIN-TUBES.



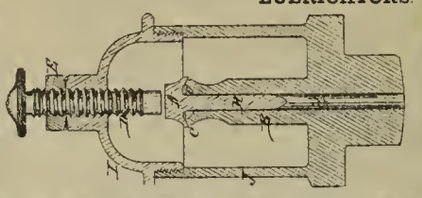
106,710, HARRISON B. MEECH.
MANUFACTURE OF PAPER-PULP FROM WOOD.



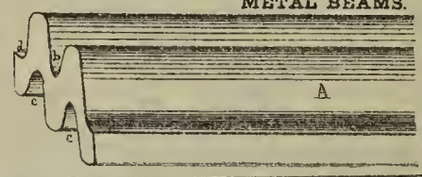
106,711, HARRISON B. MEECH. REDUCING AND BLEACHING PAPER STOCK.



106,712, JAMES MEEHAN.
LUBRICATORS.

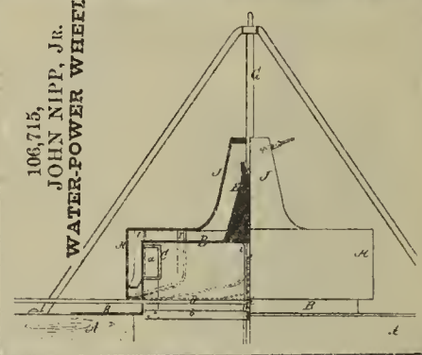


106,713. R. MONTGOMERY.
FORM OF INGOTS FOR CORRUGATED METAL BEAMS.

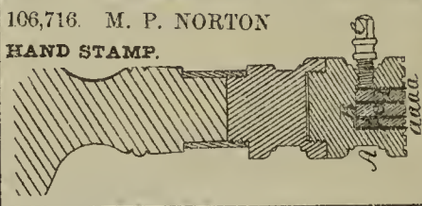


106,714. CHARLES MOST.
FIRE-CRACKER HOLDERS.

106,715, JOHN NIPP, Jr.
WATER-POWER WHEEL.

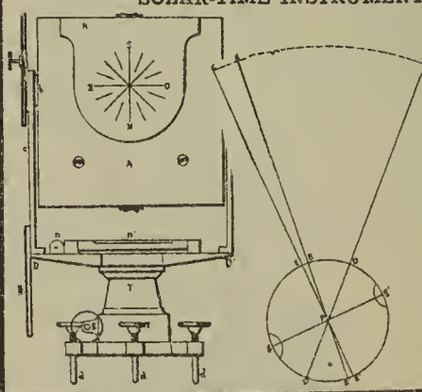


106,716. M. P. NORTON
HAND STAMP.

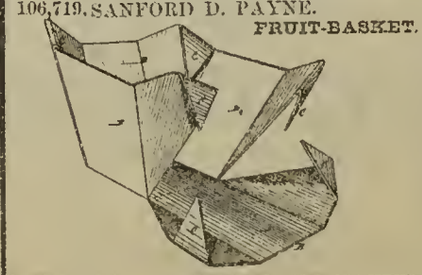


106,717, JAMES O'FRIEL.
TREATING BITUMINOUS SUBSTANCES FOR PAVEMENTS, &c.

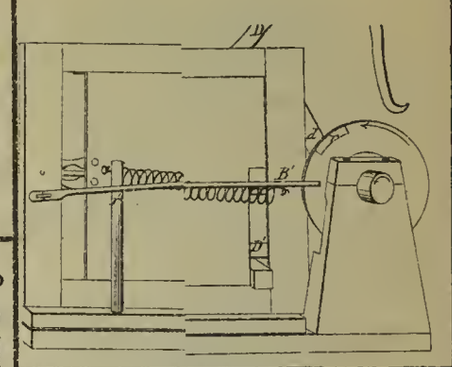
106,718, F. M. PANNETRAT.
SOLAR-TIME INSTRUMENT.



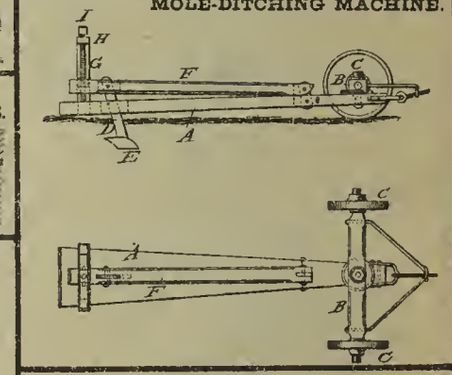
106,719, SANFORD D. PAYNE.
FRUIT-BASKET.



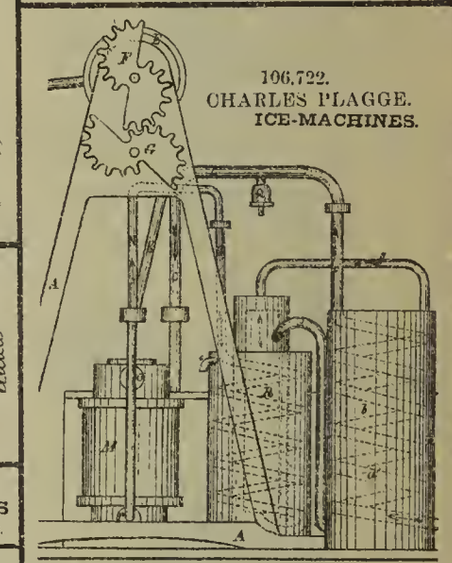
106,720, NOAH C. PERRY. MACHINES FOR BENDING WIRE SCREW-EYES.



106,721, ALFRED PETERSON.
MOLE-DITCHING MACHINE.

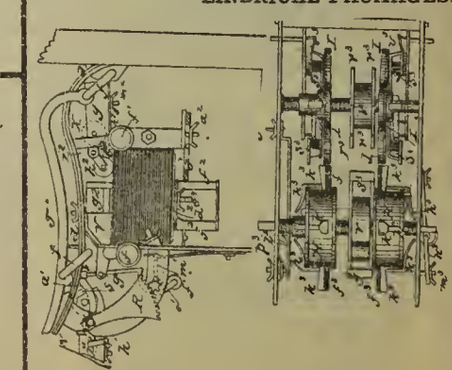


106,722.
CHARLES PLAGGE.
ICE-MACHINES.

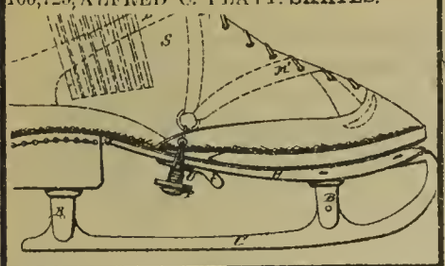


106,723,
ALFRED C. PLATT.
CAN-OPENERS.

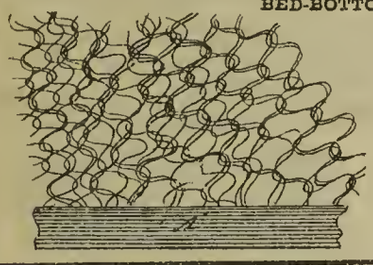
106,724,
ALFRED C. PLATT.
MACHINE FOR VARNISHING AND LABELING FRUIT-CANS AND OTHER CYLINDRICAL PACKAGES.



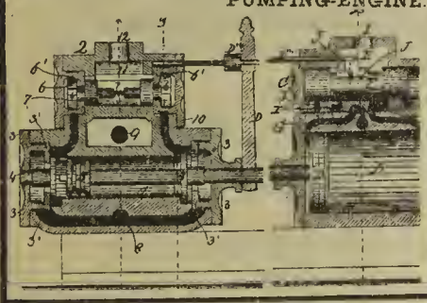
106,725, ALFRED C. PLATT. SKATES.



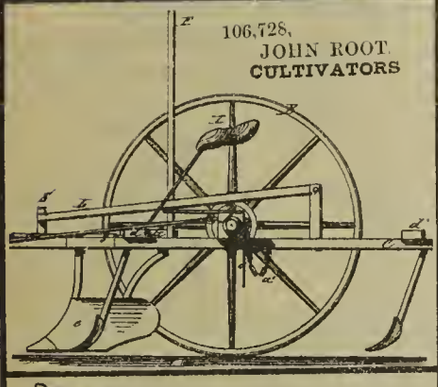
106,726, GEO. RICHARDSON. BED-BOTTOM.



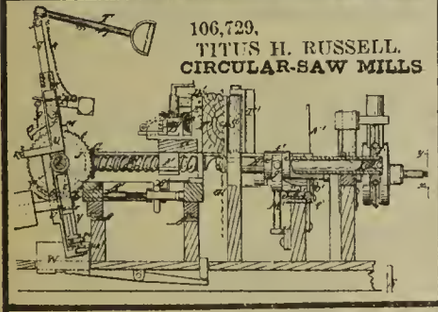
106,727, LOUIS C. RODIER. PUMPING-ENGINE.



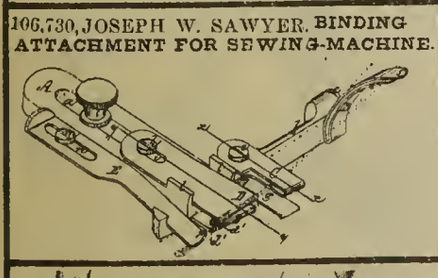
106,728, JOHN ROOT. CULTIVATORS.



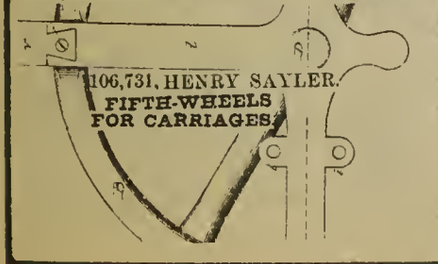
106,729, TITUS H. RUSSELL. CIRCULAR-SAW MILLS.



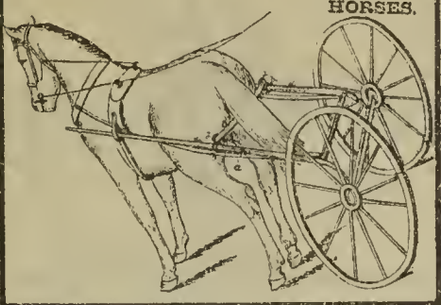
106,730, JOSEPH W. SAWYER. BINDING ATTACHMENT FOR SEWING-MACHINE.



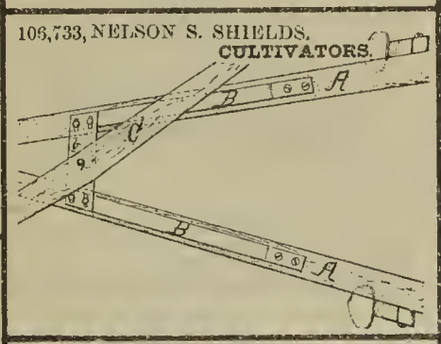
106,731, HENRY SAYLER. FIFTH-WHEELS FOR CARRIAGES.



106,732, WILLIAM F. SCHATZ. BREECHING ATTACHMENT FOR HORSES.



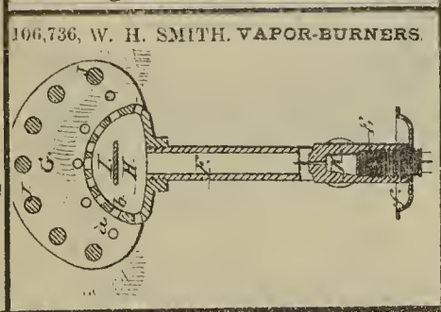
106,733, NELSON S. SHIELDS. CULTIVATORS.



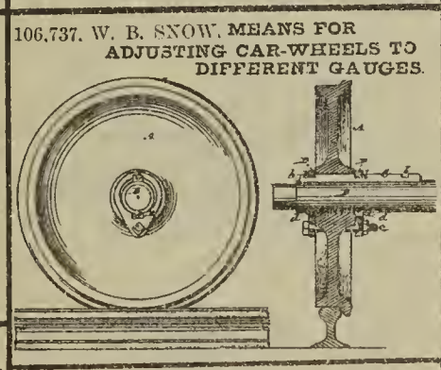
106,734, A. B. SMALL. METALLIC SEALS.

106,735, DWIGHT L. SMITH. POCKET SUN-DIALS.

106,736, W. H. SMITH. VAPOR-BURNERS.

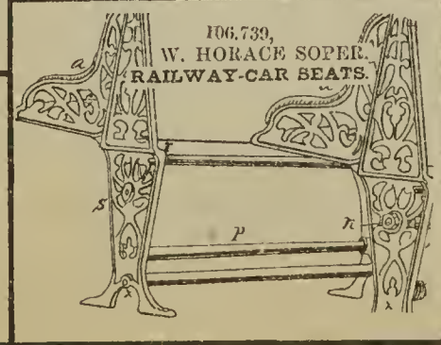


106,737, W. B. SNOW. MEANS FOR ADJUSTING CAR-WHEELS TO DIFFERENT GAUGES.

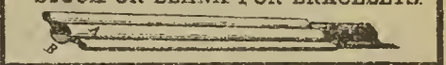


106,738, D. M. SOMERS. SUSPENSION RINGS.

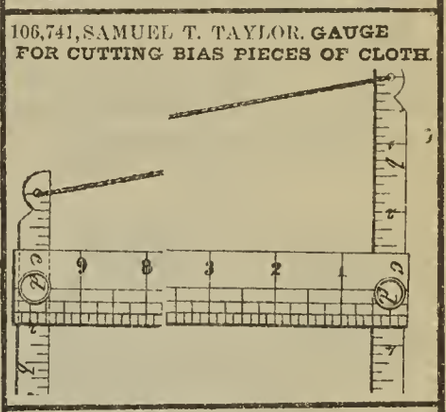
106,739, W. HORACE SOPER. RAILWAY-CAR SEATS.



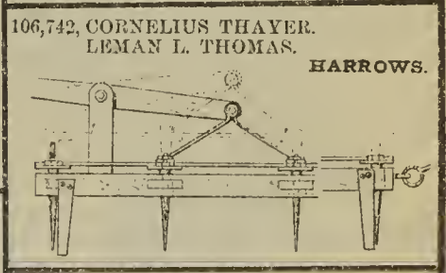
106,740, ISAAC B. STAPLES. STOCK OR BLANK FOR BRACELETS.



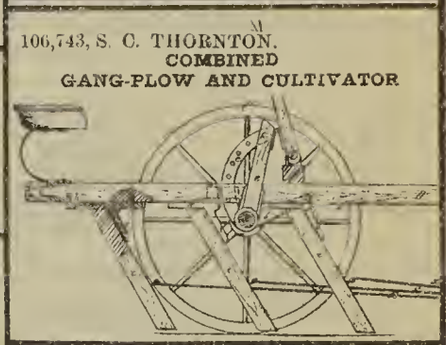
106,741, SAMUEL T. TAYLOR. GAUGE FOR CUTTING BIAS PIECES OF CLOTH.



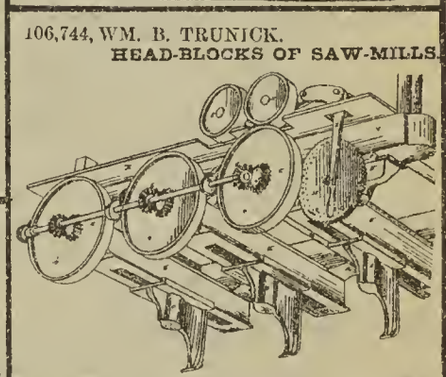
106,742, CORNELIUS THAYER. LEMAN L. THOMAS. HARROWS.



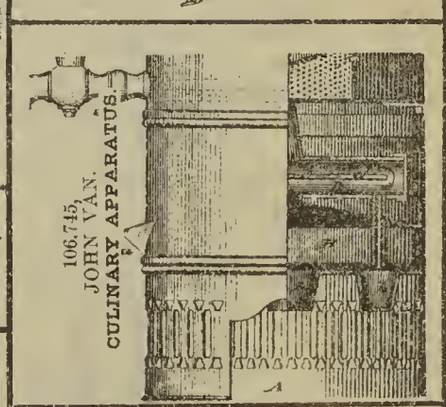
106,743, S. C. THORNTON. COMBINED GANG-PLOW AND CULTIVATOR.



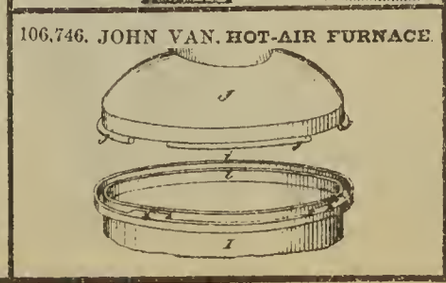
106,744, WM. B. TRUNICK. HEAD-BLOCKS OF SAW-MILLS.



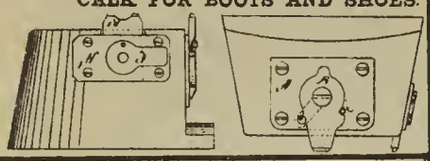
106,745, JOHN VAN. CULINARY APPARATUS.



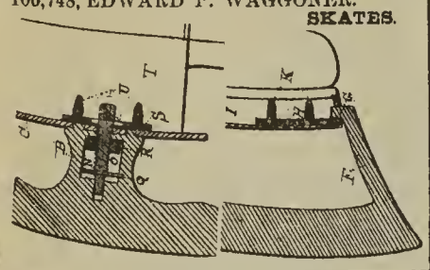
106,746. JOHN VAN. HOT-AIR FURNACE.



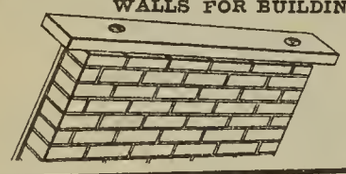
106,747, JOHN L. WAGER.
ABRAM L. SCUDDER.
CALK FOR BOOTS AND SHOES.



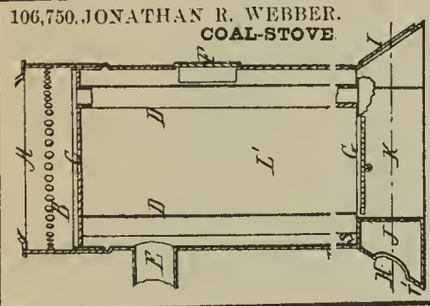
106,748, EDWARD P. WAGGONER.
SKATES.



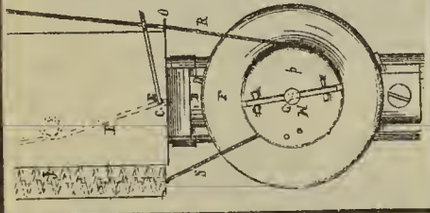
106,749, JAMES WEATHERS.
WALLS FOR BUILDINGS.



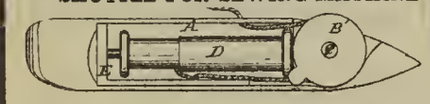
106,750, JONATHAN R. WEBBER.
COAL-STOVE.



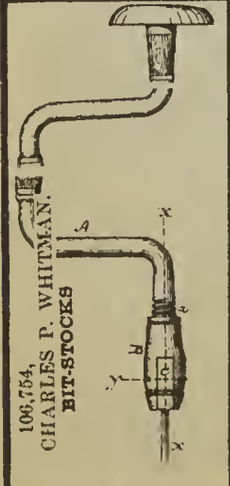
106,751, DEXTER P. WEBSTER.
SEED-PLANTER AND FERTILIZER



106,752, W. W. WELLS.
SHUTTLE FOR SEWING-MACHINE

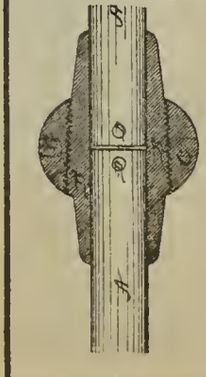


106,753, JOSEPH WHITE.
VAPOR-BURNERS.

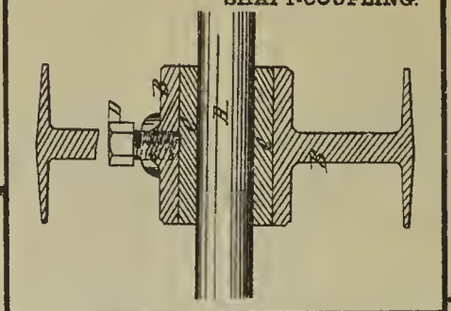


106,754, CHARLES P. WHITMAN.
BIT-STOCKS

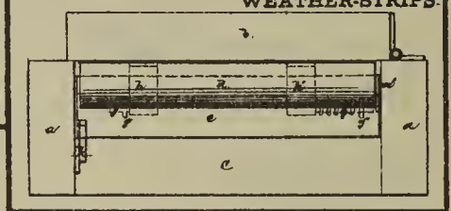
106,755.
S. H. WHITMORE.
SHAFT-COUPLING.



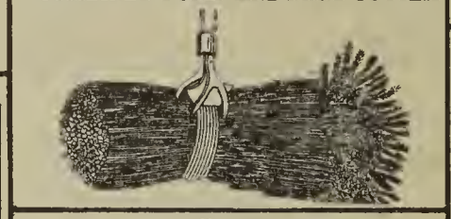
106,756, SETH H. WHITMORE.
SHAFT-COUPLING.



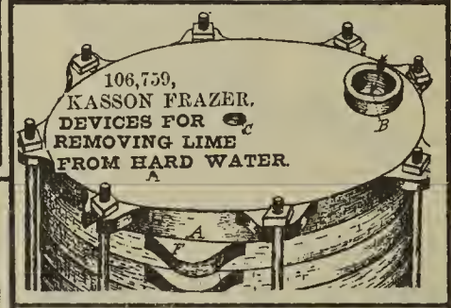
106,757, HENRY W. WICKER.
WEATHER-STRIPS.



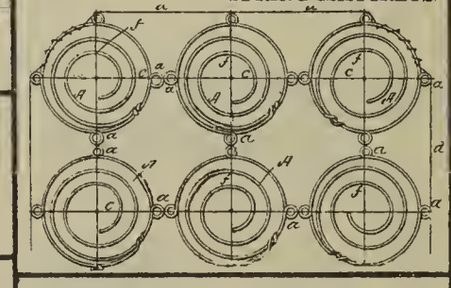
106,758, MILTON WENGER.
COMBINED FORK AND BAND-CUTTER.

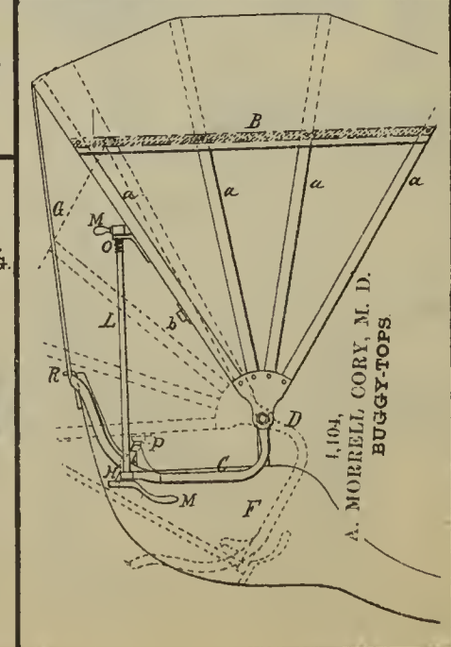


106,759,
KASSON FRAZER.
DEVICES FOR REMOVING LIME FROM HARD WATER.



4,103, EDWIN L. BUSHNELL.
SPRING MATTRESS.





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A. MORRELL CORY, M. D.
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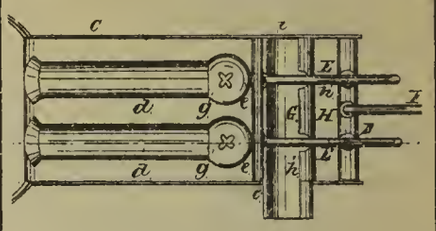
4,105. GEO. GEER. **CHERRY-STONER.**



4,106. C. GUIDET.
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4,107,
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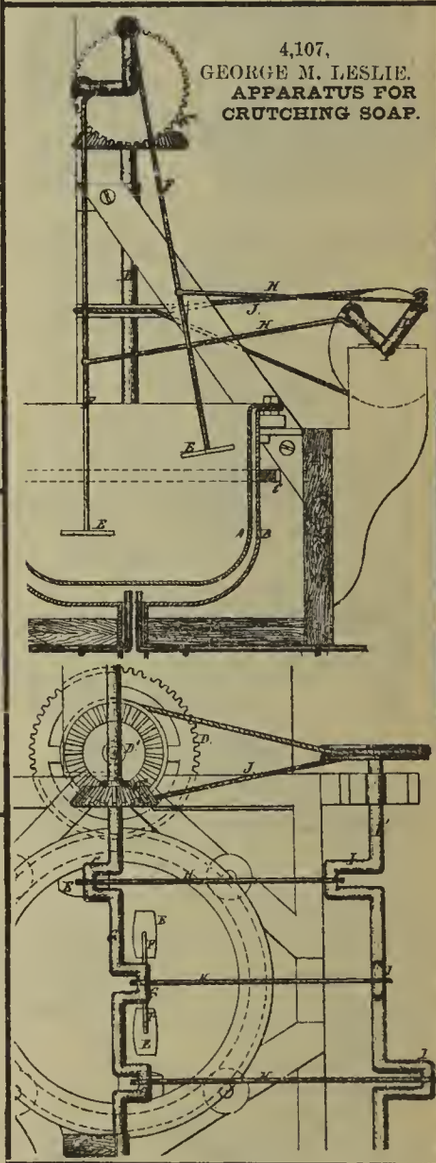
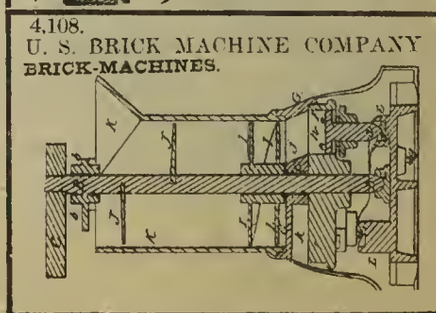
APPARATUS FOR CRUTCHING SOAP.



4,108.
U. S. BRICK MACHINE COMPANY
BRICK-MACHINES.



ILLUSTRATIONS OF PATENTS

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106,760, JOHN S. ADAMS.
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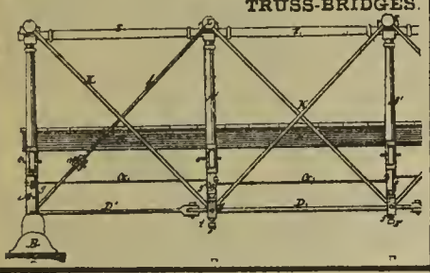

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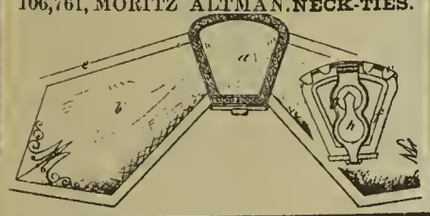

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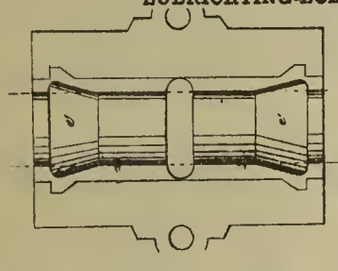

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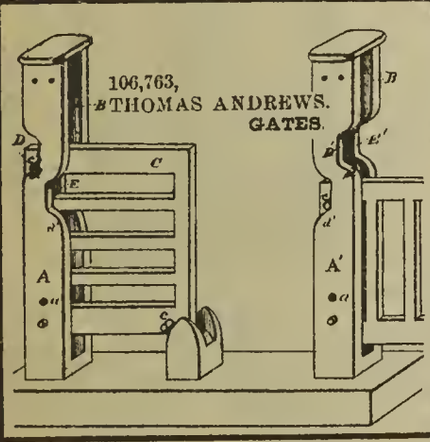

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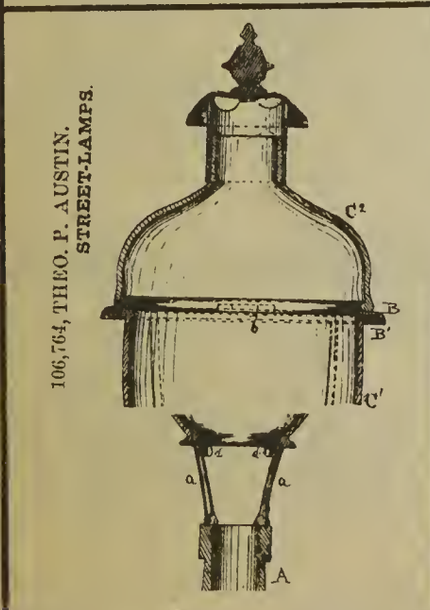
STREET-LAMPS.



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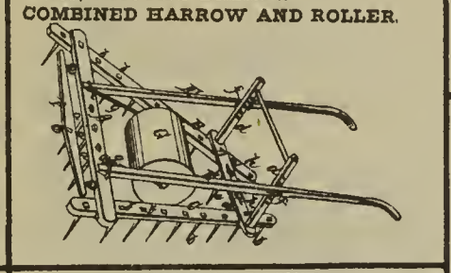
COMBINED HARROW AND ROLLER.



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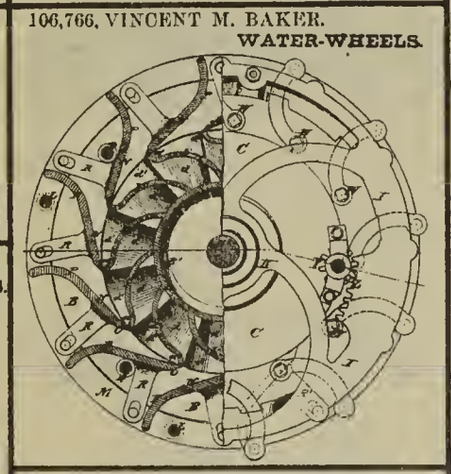

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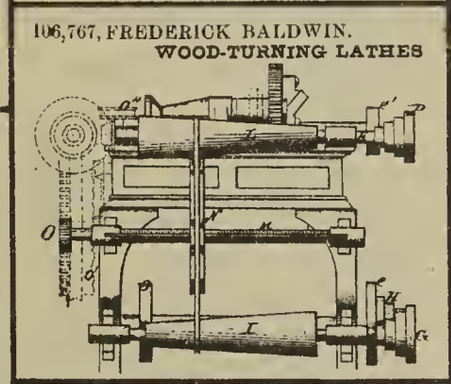

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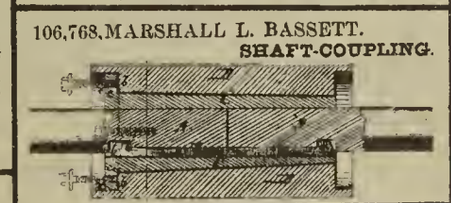

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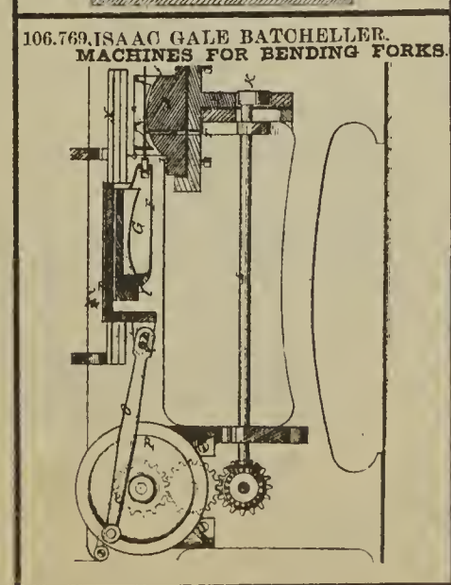

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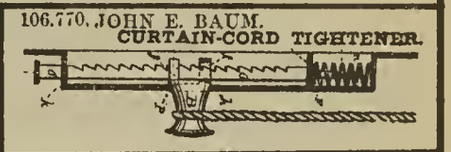

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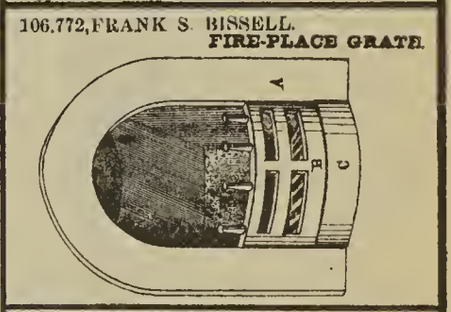
FIRE-PROOF RAILWAY-CARS.

106,772, FRANK S. BISSELL.
FIRE-PLACE GRATE.



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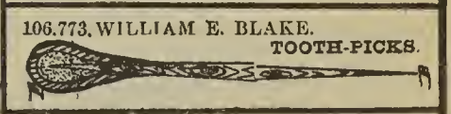

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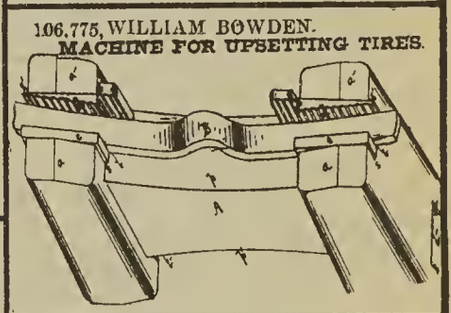
106,775, WILLIAM BOWDEN.
MACHINE FOR UPSETTING TIRES.



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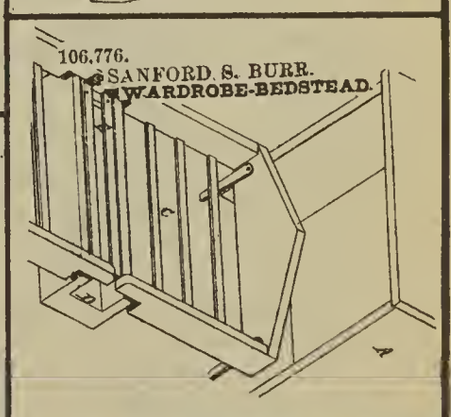
SANFORD S. BURR.
WARDROBE-BEDSTEAD.



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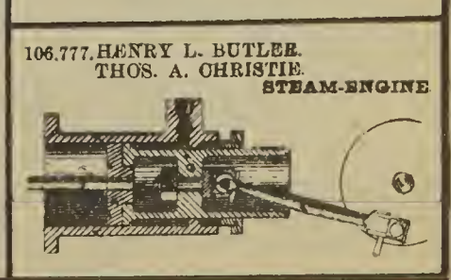
STEAM-ENGINE



106,778, JOHN CASH.
JOSEPH CASH, JUNR.
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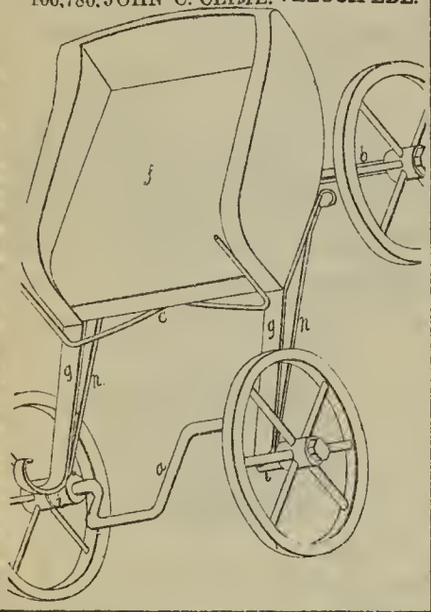
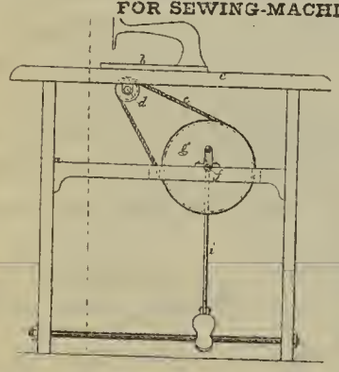
106,779, JACOB CAYLOR.
SPADES AND SHOVELS.

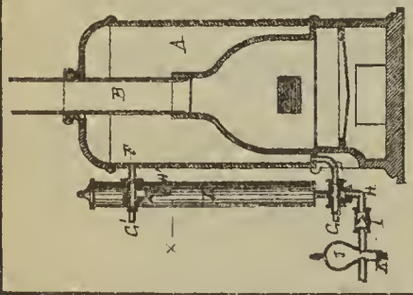
106,780, JOHN C. CLIME. VELOCIPEDE.



106,781, JOHN COCHRANE, JR.
DRIVING MECHANISM
FOR SEWING-MACHINES.



106,782, HENRY V. COLEMAN.
CIRCULATING WATER-HEATERS
FOR STEAM FIRE-ENGINES.



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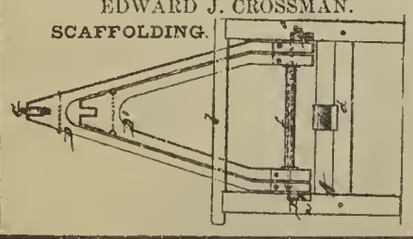
EDWARD J. CROSSMAN.
SCAFFOLDING.



106,784, G. F. CORNELIUS.
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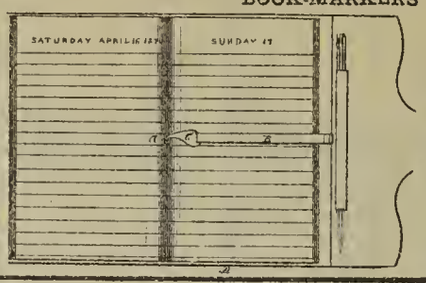
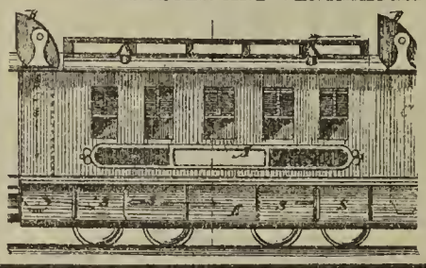
106,785, EDMUND COTTLE.
BOOK-MARKERS



106,786, JOHN PENN CURRY. RAILROAD-
CAR DUSTER AND VENTILATOR.



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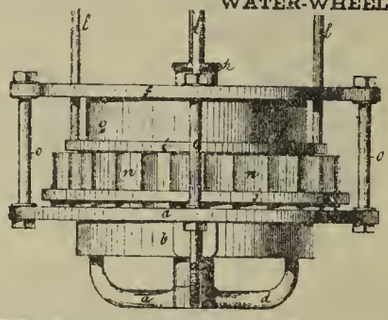
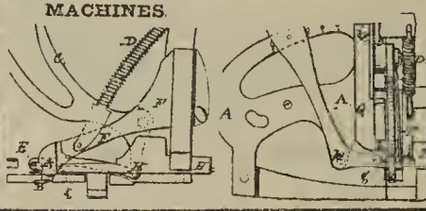
WATER-WHEELS.

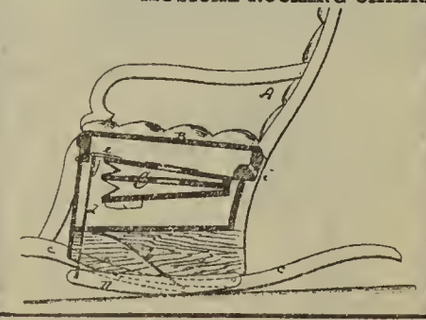


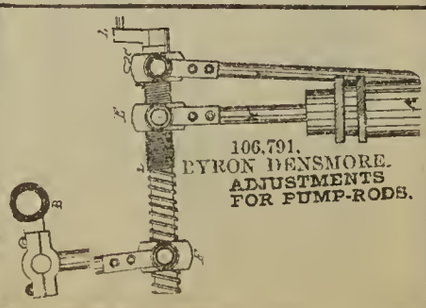
106,788. J. A. DAVIS.
GATHERING DEVICE FOR SEWING
MACHINES.



106,789, JOB A. DAVIS.
CREASING ATTACHMENT FOR
SEWING-MACHINE.

106,790, CLAYTON DENN.
MUSICAL ROCKING-CHAIR.





106,791.
BYRON DENSMORE.
ADJUSTMENTS
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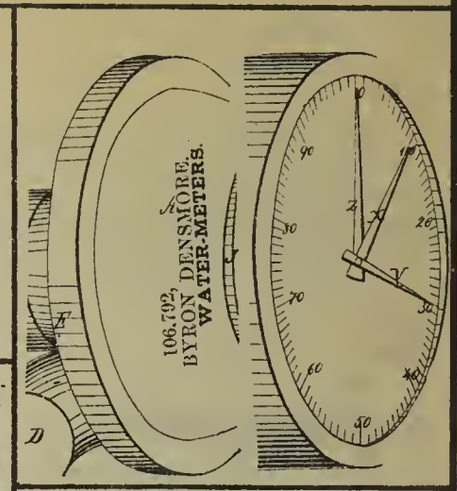

106,792,
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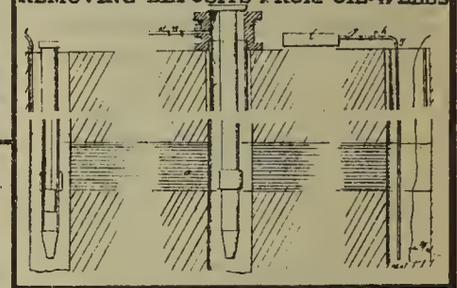
WATER-METERS.

106,793, JAMES DICKEY.
REMOVING DEPOSITS FROM OIL-WELLS



106,794, JAMES DICKEY.
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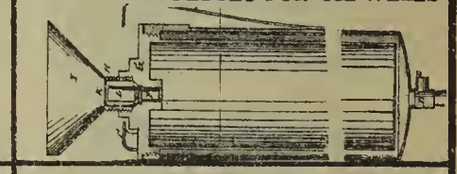

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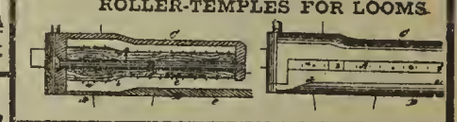
PENCIL-SHARPENERS.

106,796, GEORGE L. DULANEY.
TENSION
DEVICE FOR SEWING-MACHINE.

106,797, WARREN W. DUTCHER.
ROLLER-TEMPLES FOR LOOMS.



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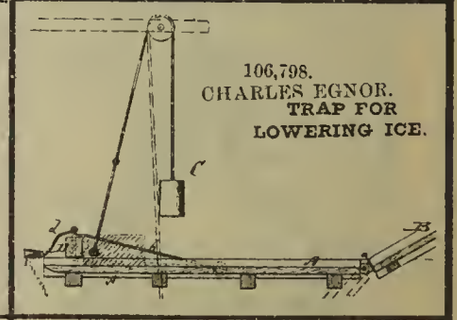
CHARLES EGNOR.
TRAP FOR
LOWERING ICE.



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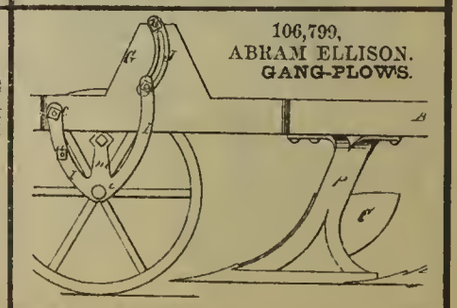
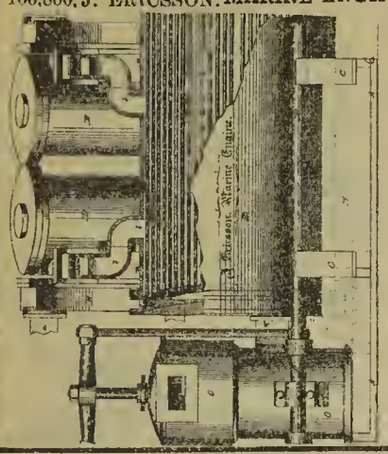
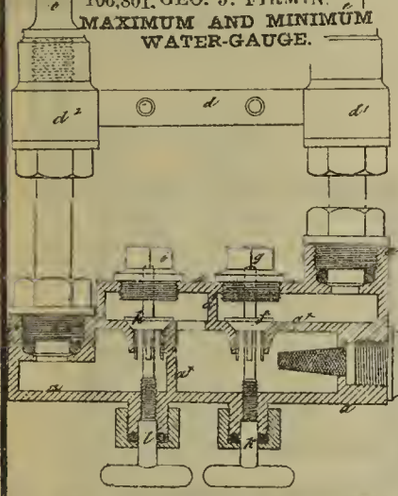
ABRAM ELLISON.
GANG-PLOWS.

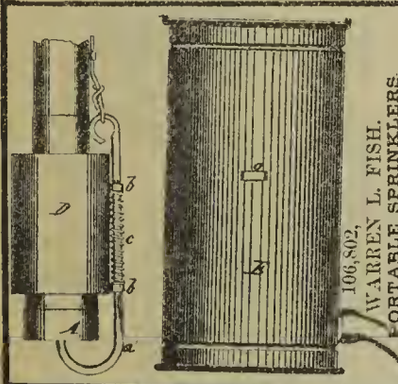


106,800, J. ERICSSON. MARINE ENGINES.



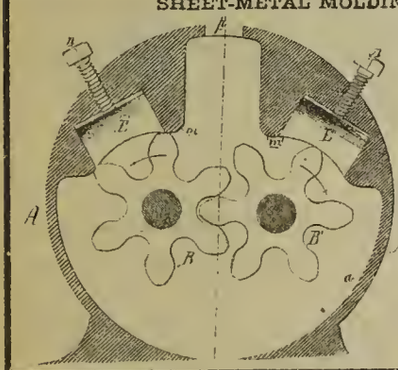
106,801, GEO. J. FIRMIN.
MAXIMUM AND MINIMUM WATER-GAUGE.



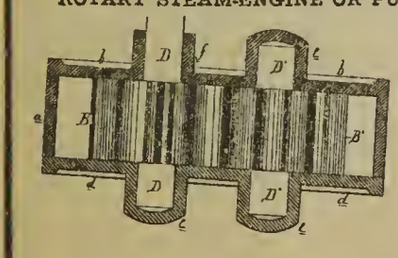


106,802, WARREN L. FISH.
PORTABLE SPRINKLERS.

106,803, HENRY G. FISKE.
MACHINE FOR FORMING SHEET-METAL MOLDINGS.



106,804, GEORGE STORES FOLLANSBEE.
ROTARY STEAM-ENGINE OR PUMP.



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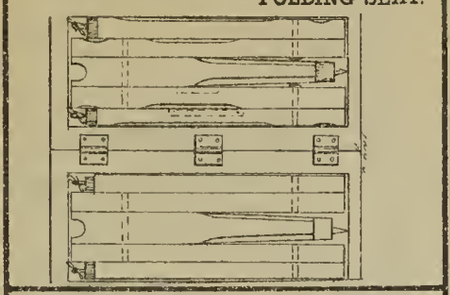

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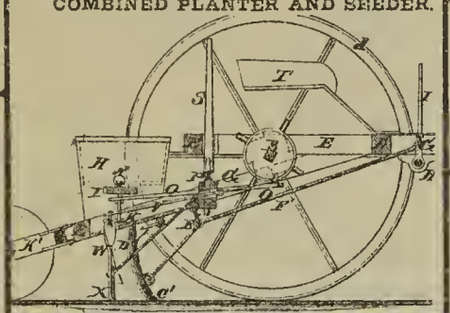
COMBINED PLANTER AND SEEDER.



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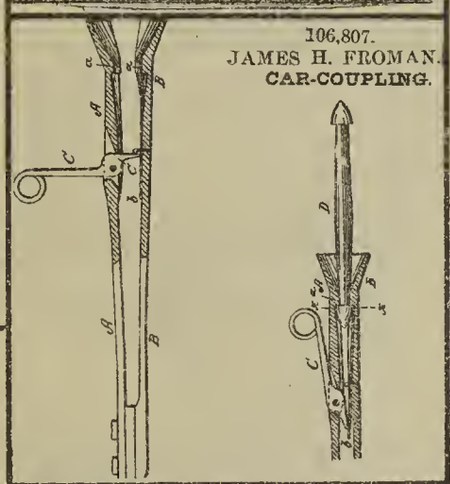
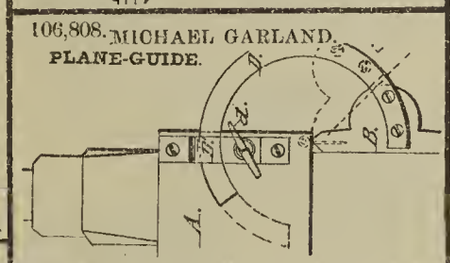
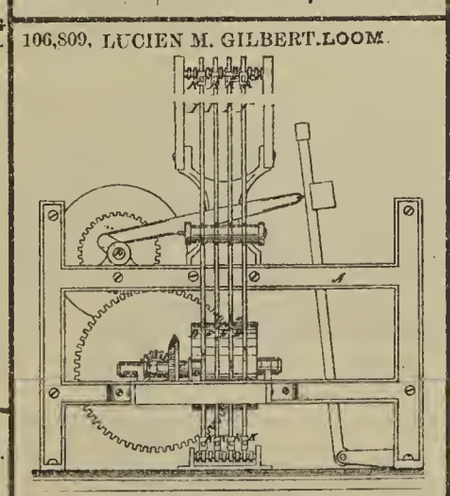
JAMES H. FROMAN.
CAR-COUPLING.



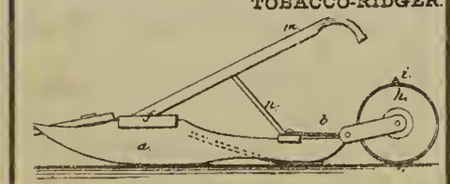
106,808, MICHAEL GARLAND.
PLANE-GUIDE.



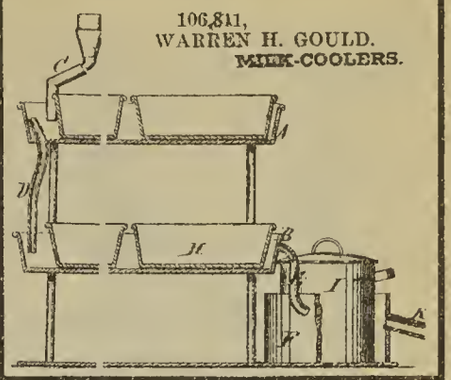
106,809, LUCIEN M. GILBERT. LOOM.



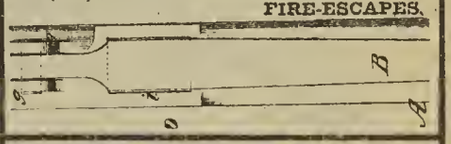
106,810, OZIAS W. GOSLEE.
TOBACCO-RIDGER.



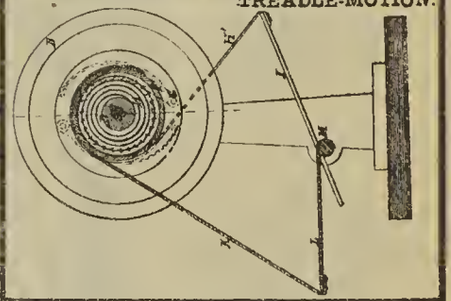
106,811,
WARREN H. GOULD.
MILK-COOLERS.



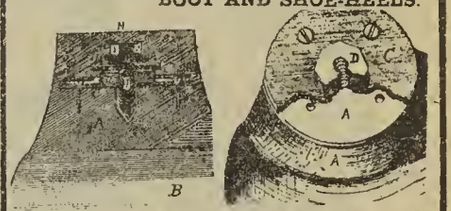
106,812, DR. JOHN A. GRISWOLD.
FIRE-ESCAPES.



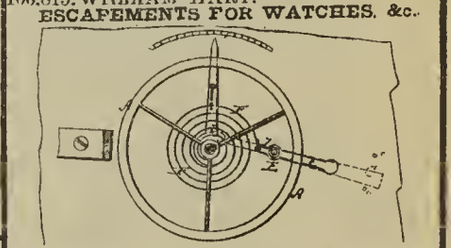
106,813, CHARLES M. GUESS.
TREADLE-MOTION.



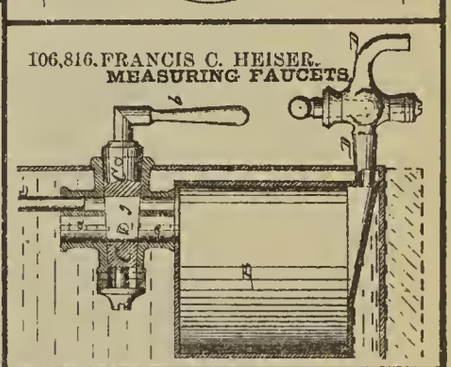
106,814, H. F. HARRIS,
G. P. PINNEY.
BOOT AND SHOE-HEELS.



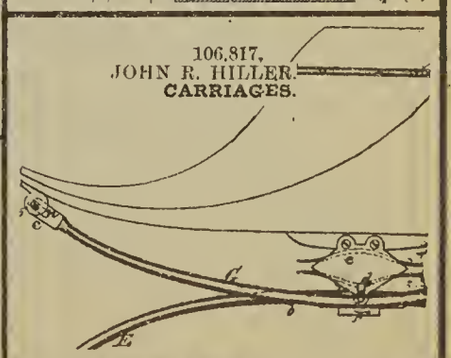
106,815, WILLIAM HART.
ESCAPEMENTS FOR WATCHES, &c.



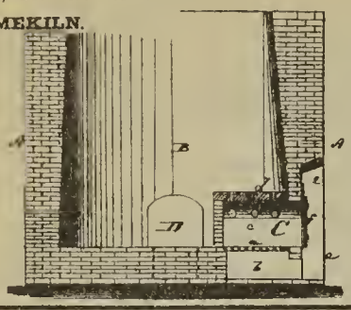
106,816, FRANCIS C. HEISER.
MEASURING FAUCETS.



106,817,
JOHN R. HILLER.
CARRIAGES.

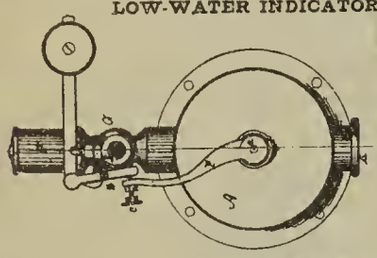


106,818. D. HILLS.
LIMEKILN.

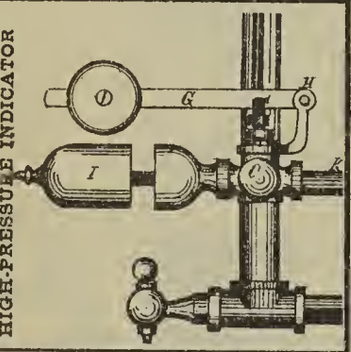


106,819, CONSTANTINE HINGHER.
COVERING METAL ARTICLES WITH INDIA RUBBER.

106,820, GEO. M. HOPKINS, JOHN A. STRAIGHT.
LOW-WATER INDICATOR.



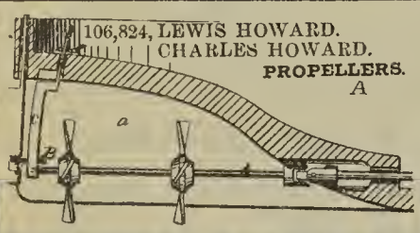
106,821, GEO. M. HOPKINS, JOHN A. STRAIGHT.
LOW-WATER AND HIGH-PRESSURE INDICATOR.



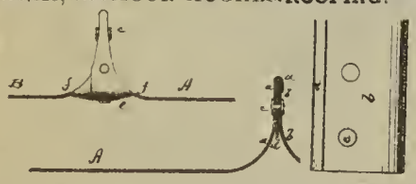
106,822, HIRAM HOPKINS.
BOOM-CROTCH SUPPORTERS.

106,823, JAMES S. HOWARD.
COLORING GUN-BARRELS.

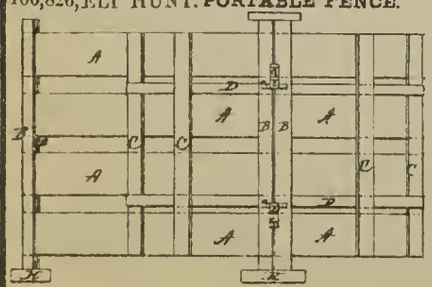
106,824, LEWIS HOWARD, CHARLES HOWARD.
PROPELLERS.



106,825, SEYMOUR HUGHES. ROOFING.



106,826, ELI HUNT. PORTABLE FENCE.



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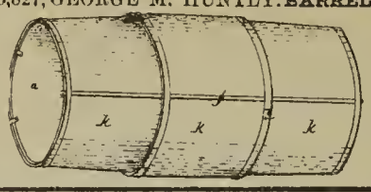
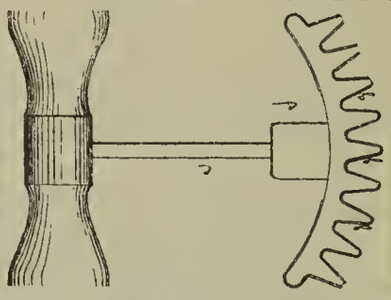


106,828, CHARLES HYATT.
FLUTING AND SAD-IRON.



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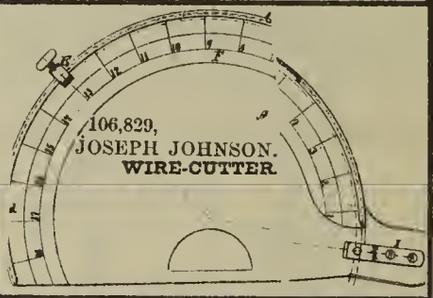
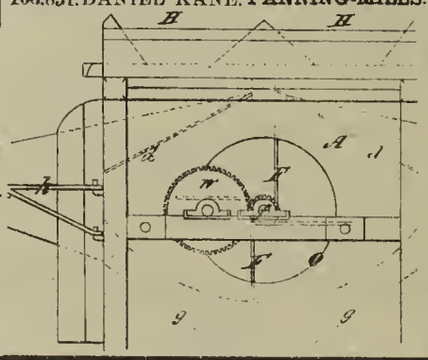
WIRE-CUTTER.

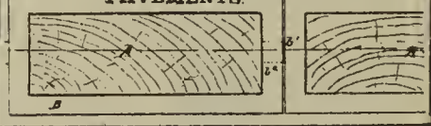


106,830, FREDK. W. JUDD, GEORGE M. HUBBARD.
LOCKS FOR THE MEETING RAIL OF SASHES.

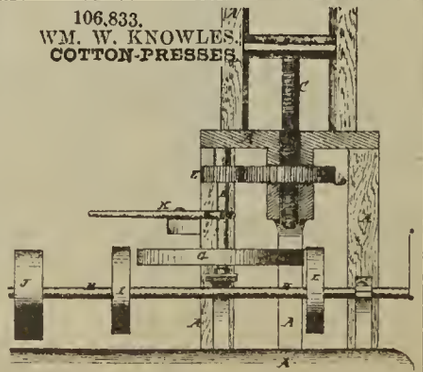
106,831. DANIEL KANE. FANNING-MILLS.



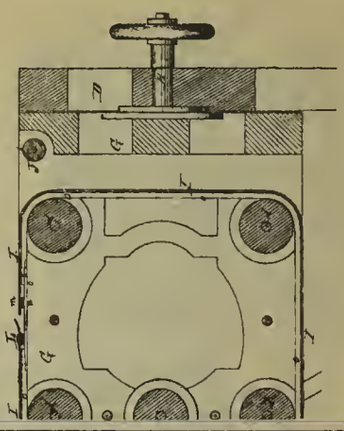
106,832. JOHN STAFFORD KELLY, C. E.
PAVEMENTS.



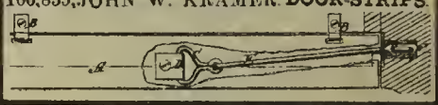
106,833. WM. W. KNOWLES.
COTTON-PRESSES.



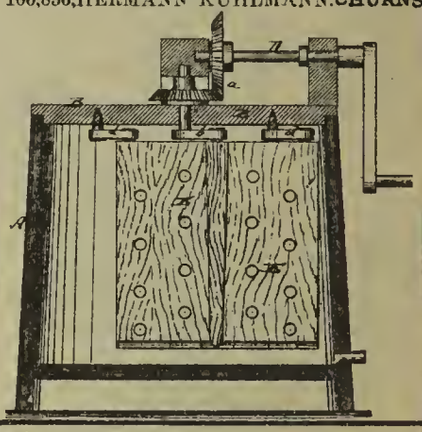
106,834. JOSEPH KRAFT. MACHINERY FOR PRINTING OIL-CLOTH, &c.



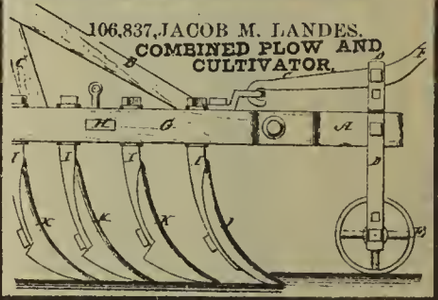
106,835. JOHN W. KRAMER. DOOR-STRIPS.



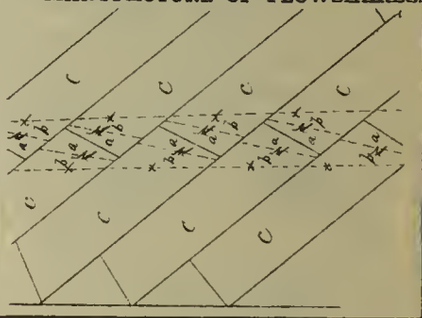
106,836. HERMANN KUHLMANN. CHURNS.



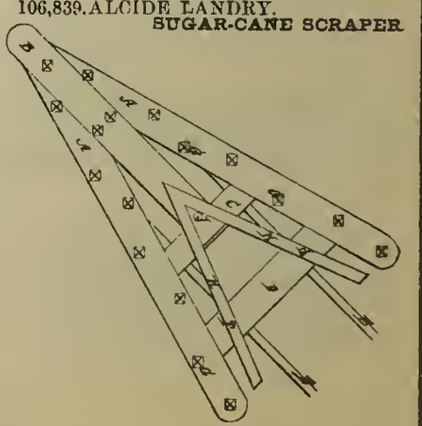
106,837. JACOB M. LANDES.
COMBINED PLOW AND CULTIVATOR.



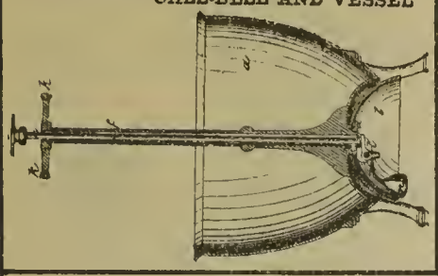
106,838. JOHN LANE.
MANUFACTURE OF PLOWSHARES.



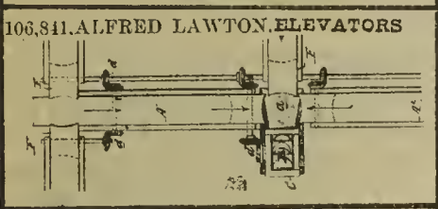
106,839. ALCIDE LANDRY.
SUGAR-CANE SCRAPER.



106,840. NATHAN LAWRENCE.
CALL-BELL AND VESSEL



106,841. ALFRED LAWTON. ELEVATORS



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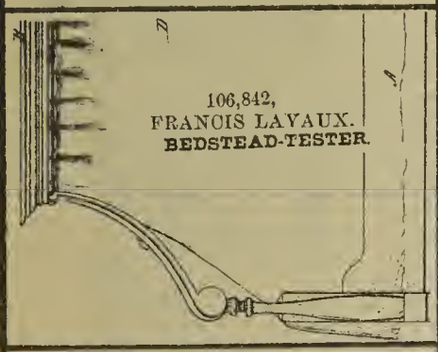
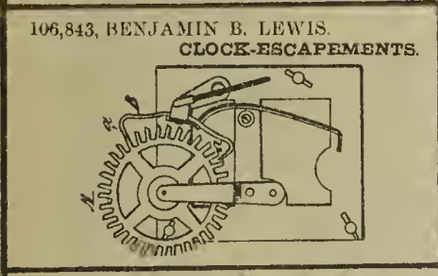
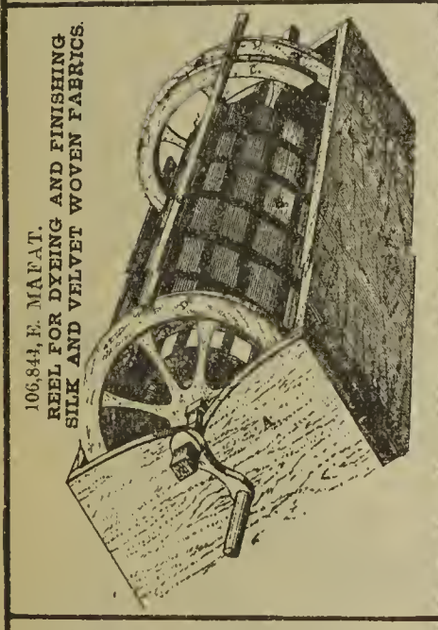
FRANCIS LAVAUX.
BEDSTEAD-TESTER.



106,843, BENJAMIN B. LEWIS.
CLOCK-ESCAPEMENTS.



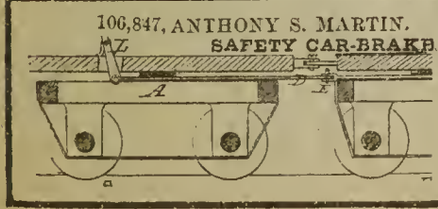
106,844, E. MAPAT.
REEL FOR DYEING AND FINISHING SILK AND VELVET WOVEN FABRICS.



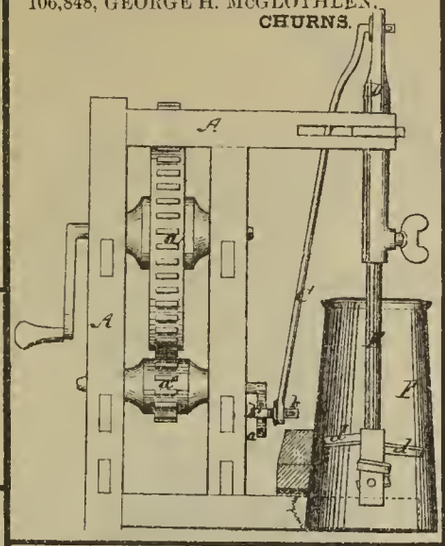
106,845, JOHN MARCHBANK.
CONSTRUCTION OF BRUSHES.

106,846. ANN AUGUSTA MARSH.
MEDICAL COMPOUND.

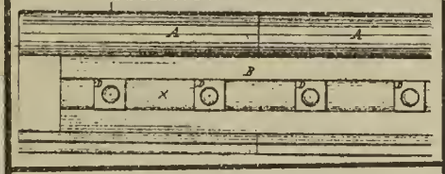
106,847, ANTHONY S. MARTIN.
SAFETY CAR-BRAKE.



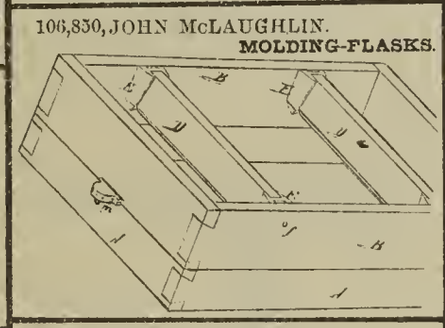
106,848, GEORGE H. McGLOTHLEN.
CHURNS.



106,849, R. L. McGOWAN. COMBINED
LOCK-NUTS AND SPLICE-BARS.

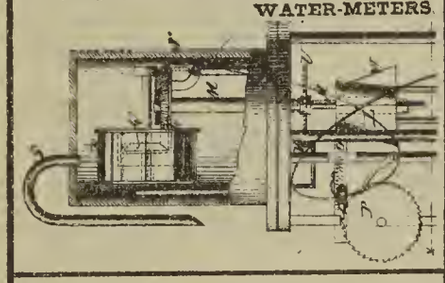


106,850, JOHN McLAUGHLIN.
MOLDING-FLASKS.

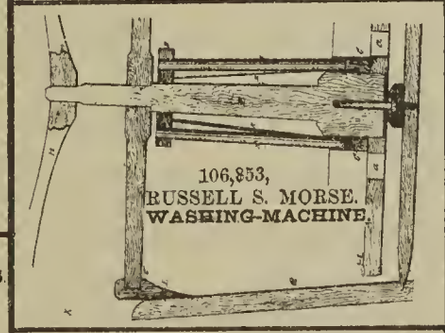


106,851, CAMPBELL MORFIT.
TREATMENT OF GUANO AND THE MANUFACTURE OF FER-TILIZERS.

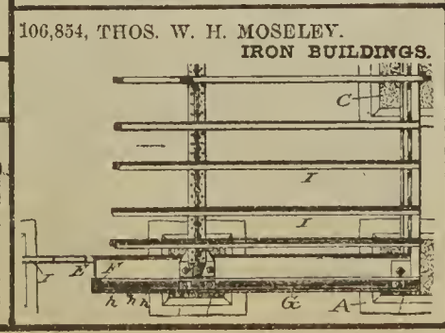
106,852, ANDREW MORSE.
WATER-METERS.



106,853,
RUSSELL S. MORSE.
WASHING-MACHINE.



106,854, THOS. W. H. MOSELEY.
IRON BUILDINGS.



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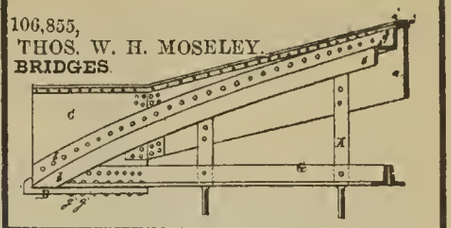
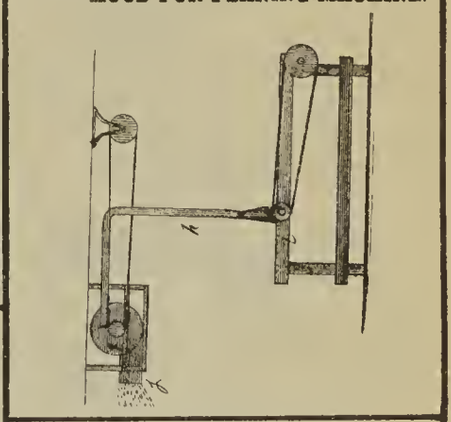
THOS. W. H. MOSELEY.
BRIDGES.



106,856, BARKER D. MOTT.
HOOD FOR PLANING-MACHINE.



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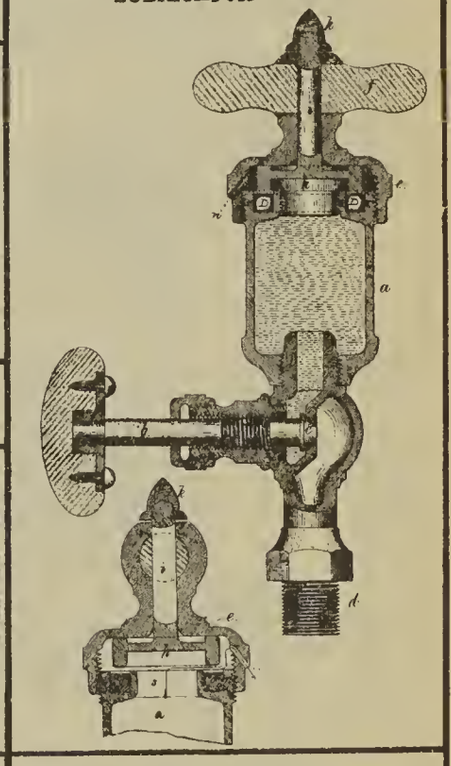
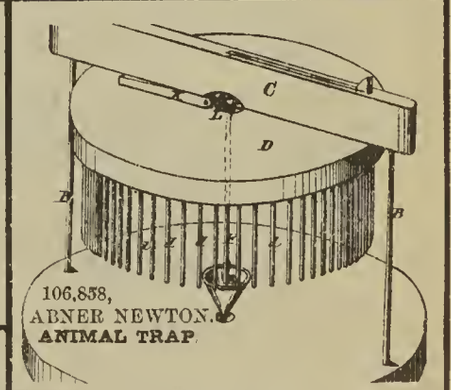
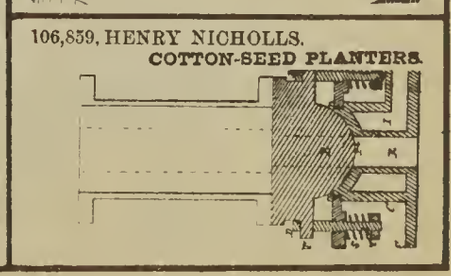
LUBRICATOR.



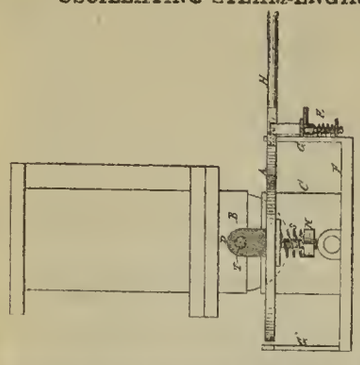
106,858,
ABNER NEWTON.
ANIMAL TRAP.

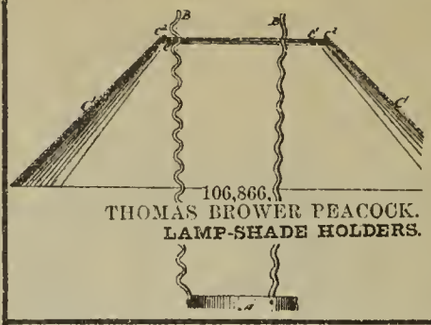


106,859, HENRY NICHOLLS.
COTTON-SEED PLANTERS.



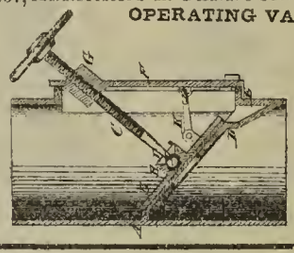
106,860, AUGUST NITTINGER, JR. OSCILLATING STEAM-ENGINES.



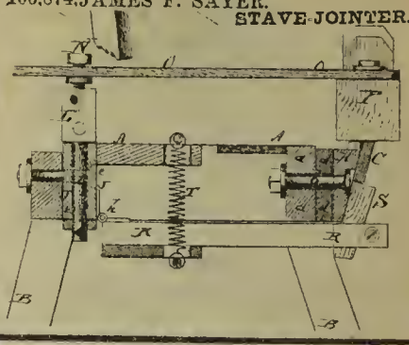


106,866, THOMAS BROWER PEACOCK. LAMP-SHADE HOLDERS.

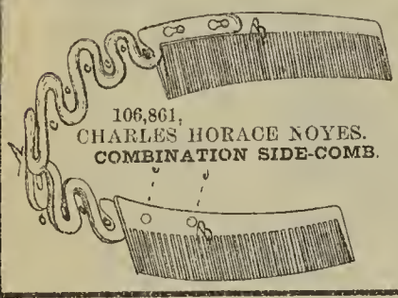
106,867, ABRAHAM L. PENNOCK. OPERATING VALVES.



106,874, JAMES F. SAYER. STAVE-JOINTER.

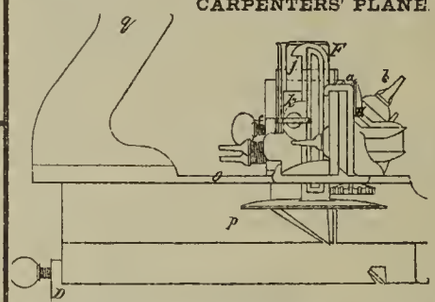


106,875, EDWARD SCHARNIKOW. COMPOUND OR "ROUGH STUFF" TO BE APPLIED TO CARRIAGE-BODIES, &c.

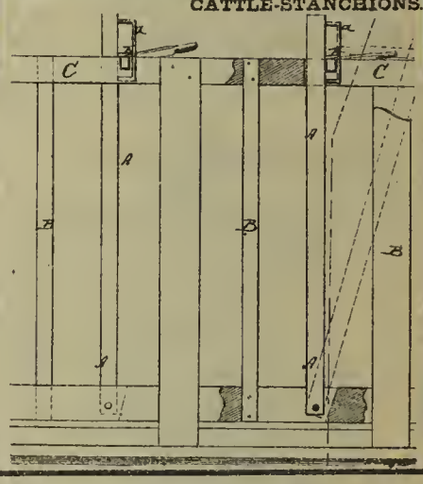


106,861, CHARLES HORACE NOYES. COMBINATION SIDE-COMB.

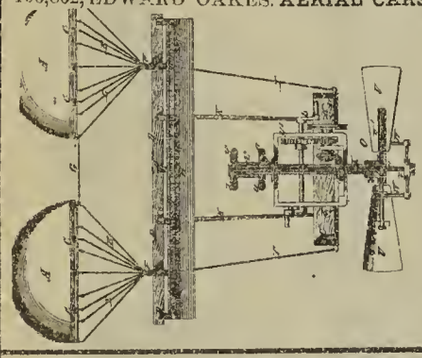
106,868, RUSSELL PHILLIPS. CARPENTERS' PLANE.



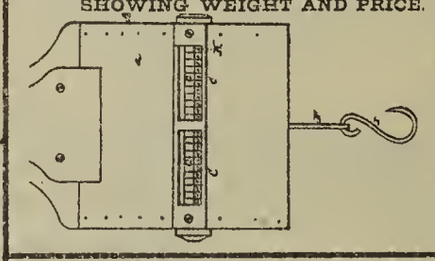
106,876, JOHN D. SCOTT. CATTLE-STANCHIONS.



106,862, EDWARD OAKES. AERIAL CARS.

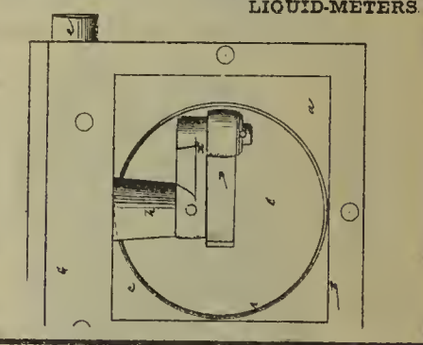


106,869, W. H. PHINNEY. SCALES FOR SHOWING WEIGHT AND PRICE.

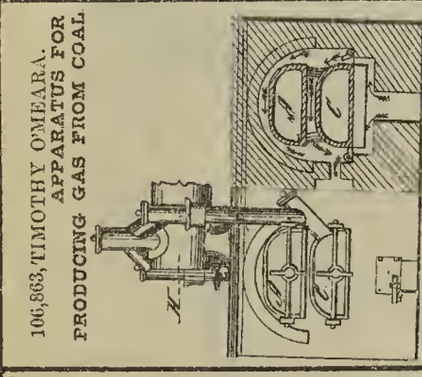


106,877, THOMAS C. SCOTTRON, SIDNEY PLUMMER. COMPOSITION FOR BLACKING STOVES, &c.

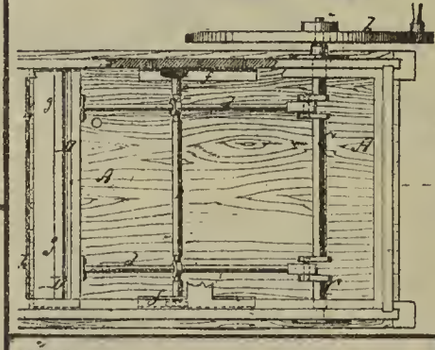
106,878, HENRY C. SERGEANT. LIQUID-METERS.



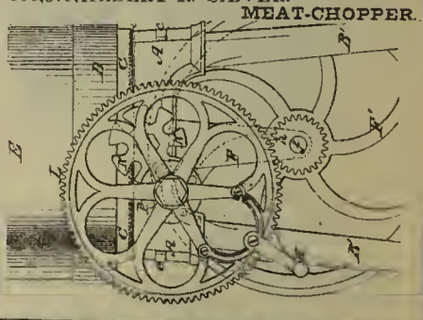
106,863, TIMOTHY O'BARA. APPARATUS FOR PRODUCING GAS FROM COAL.



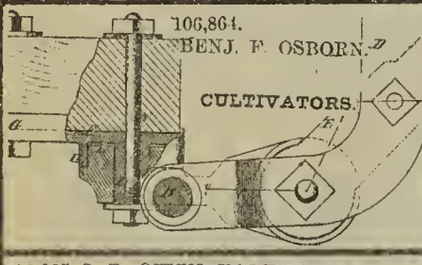
106,870, JOHN PREHN. WASHING-MACHINE.



106,879, ALBERT R. SILVER. MEAT-CHOPPER.



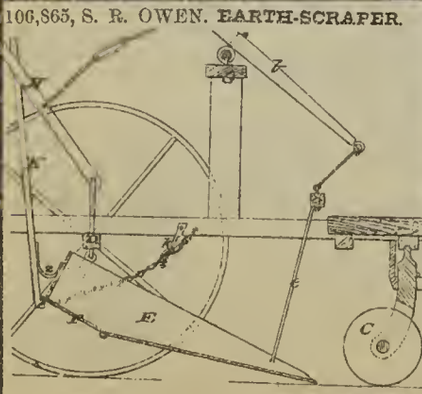
106,864, BENJ. F. OSBORN. CULTIVATORS.

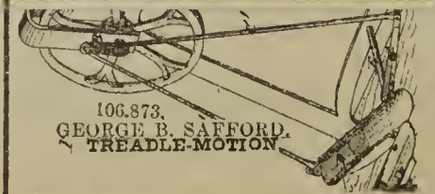


106,871, E. F. RICHTER. CLEANSING WOOL.

106,872, HENRY W. RUDOLF. PRESSES FOR STENCIL-PRINTING.

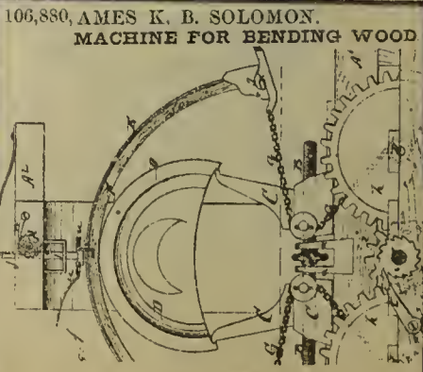
106,865, S. R. OWEN. EARTH-SCRAPER.



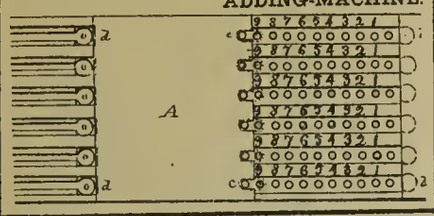


106,873, GEORGE B. SAFFORD. TREADLE-MOTION.

106,880, AMES K. B. SOLOMON. MACHINE FOR BENDING WOOD.

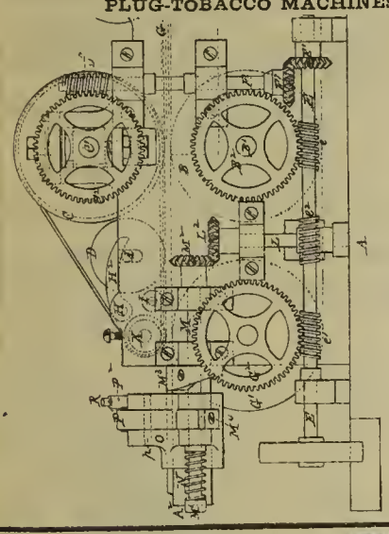


106,881, CHARLES E. SPEAR.
ADDING-MACHINE.

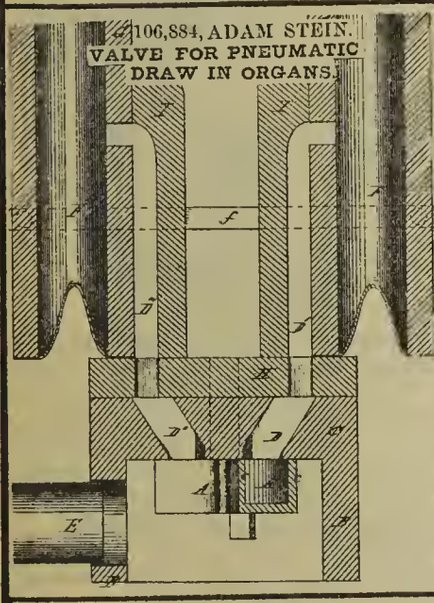


106,882, L. W. SPENCER. PROCESS FOR MANUFACTURING PLUG TOBACCO.

106,883, L. W. SPENCER.
PLUG-TOBACCO MACHINES.

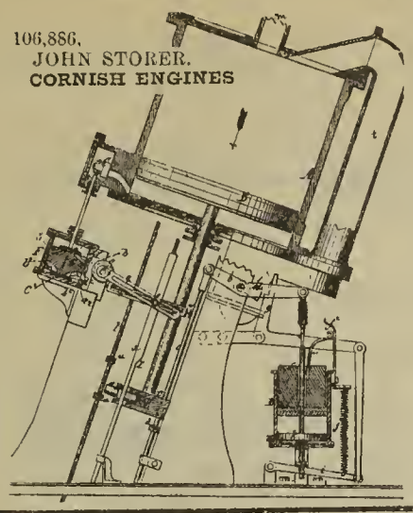


106,884, ADAM STEIN.
VALVE FOR PNEUMATIC DRAW IN ORGANS.

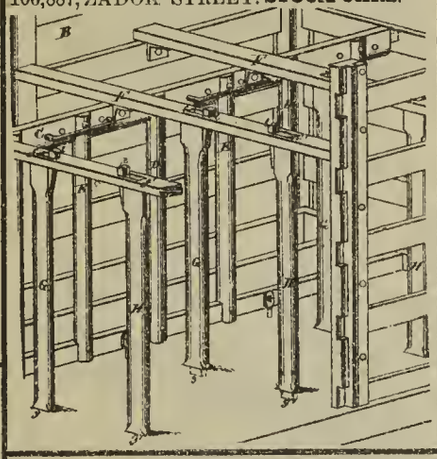


106,885, AUGUSTA M. STIGER.
COMBINED STOCKING-SUPPORTER AND SKELETON WAIST.

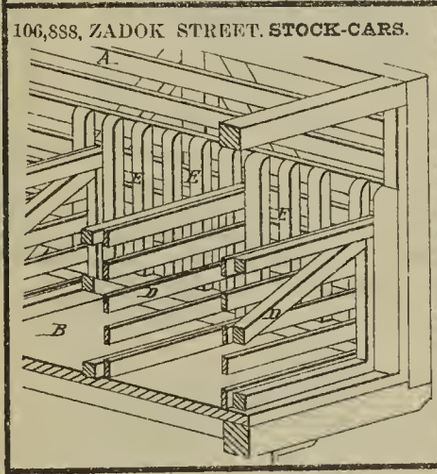
106,886,
JOHN STORER.
CORNISH ENGINES



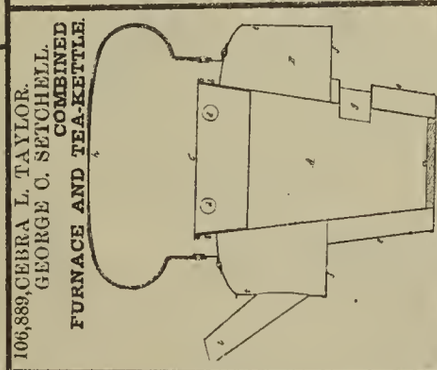
106,887, ZADOK STREET. STOCK-CARS.



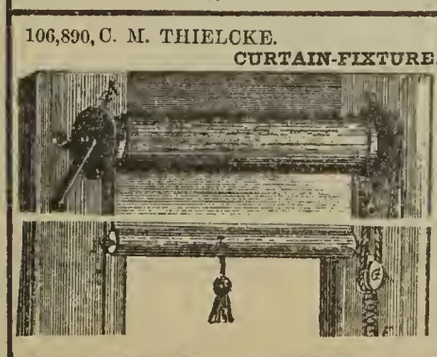
106,888, ZADOK STREET. STOCK-CARS.



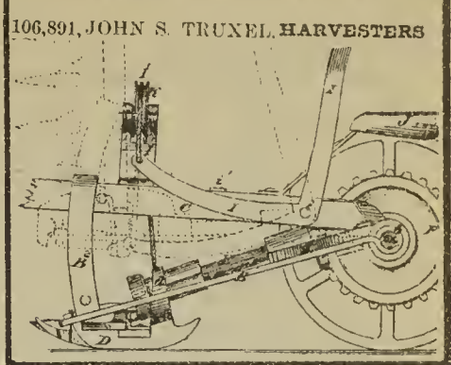
106,889, CEBRA L. TAYLOR.
GEORGE C. SETCHELL.
COMBINED FURNACE AND TEA-KETTLE.



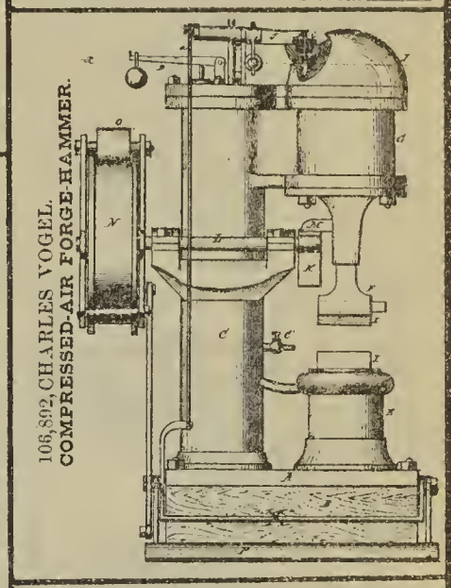
106,890, C. M. THIELCKE.
CURTAIN-FIXTURE.



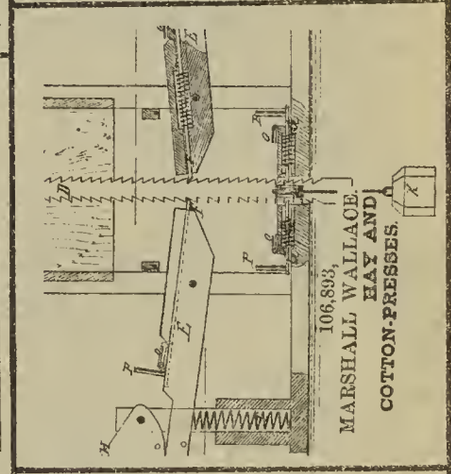
106,891, JOHN S. TRUXEL. HARVESTERS



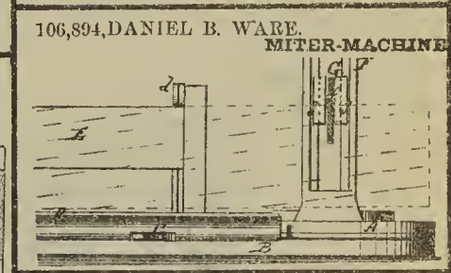
106,892, CHARLES VOGEL.
COMPRESSED-AIR FORGE-HAMMER.



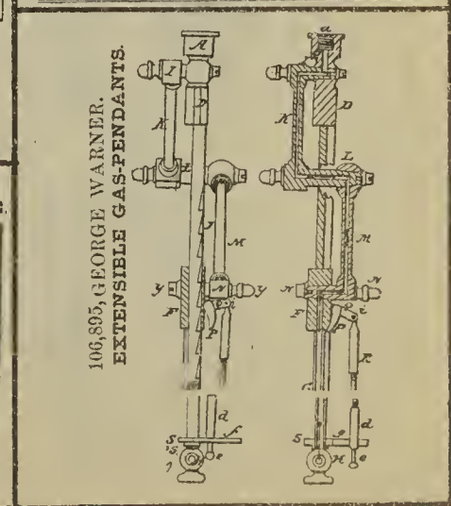
106,893,
MARSHALL WALLACE.
HAY AND COTTON-PRESSES.



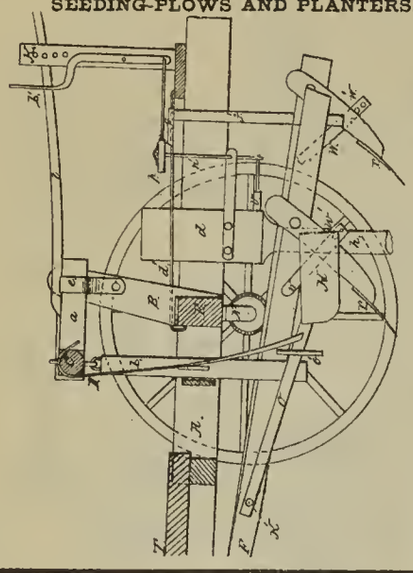
106,894, DANIEL B. WARE.
MITER-MACHINE



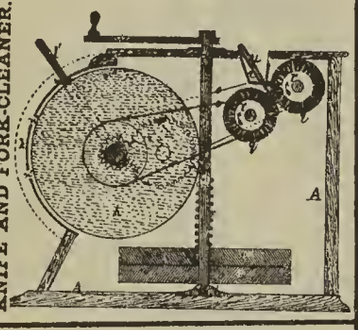
106,895, GEORGE WARNER.
EXTENSIBLE GAS-PENDANTS.



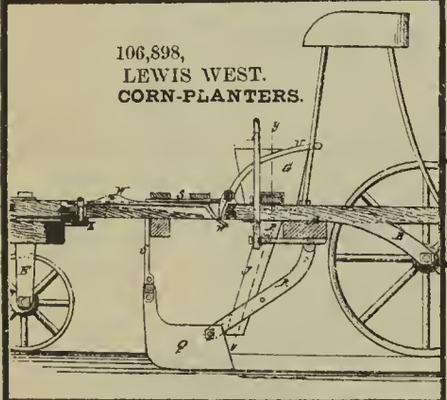
106,896, JAMES B. WATT.
JOHN C. WATT.
SEEDING-PLOWS AND PLANTERS.



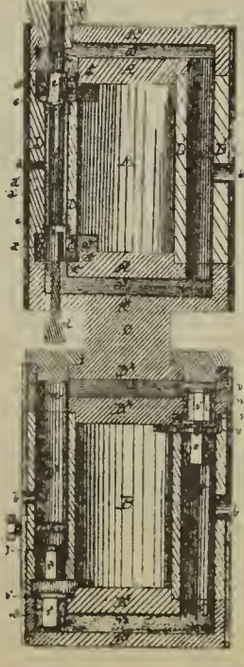
106,897,
HEREMAN WEGNER.
FRIEDRICH WEGNER.
KNIFE AND FORK-CLEANER.



106,898,
LEWIS WEST.
CORN-PLANTERS.

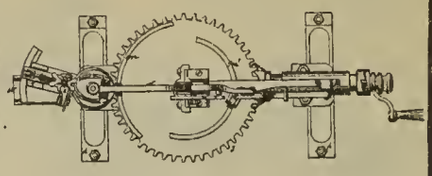


106,899. G. WESTINGHOUSE. JR.
STEAM ENGINE AND PUMP.



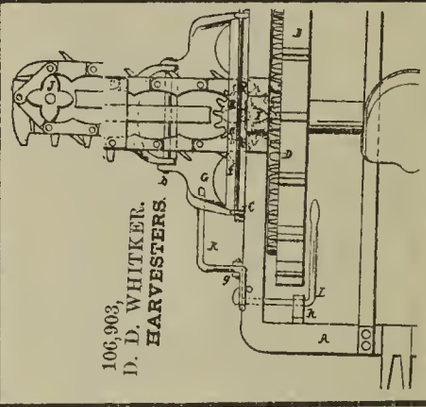
106,900, LEVI WHARTON. CLAMP.

106,901, JOHN C. WHITE.
HEEL-ROUNDING MACHINES.

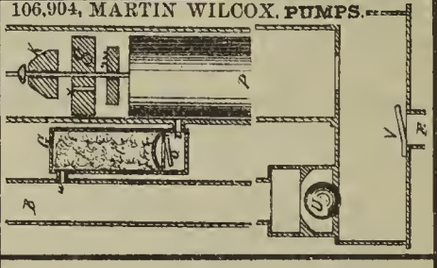


106,902, JOHN L. WHITING. BRUSHES.

106,903,
D. D. WHITKER.
HARVESTERS.

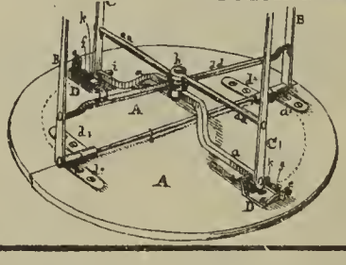


106,904, MARTIN WILCOX. PUMPS.

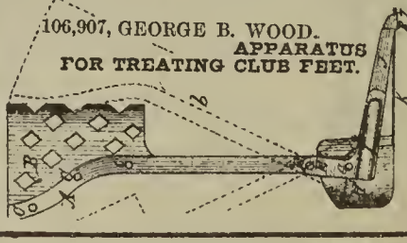


106,905. WILLIAM M. his × mark. WILSON.
DALLAS S. DENTON.
MEDICAL COMPOUND.

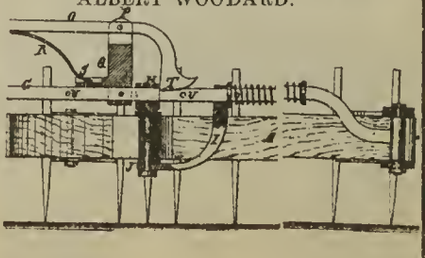
106,906, ALBERT WINDECK.
FOLDING TABLE.



106,907, GEORGE B. WOOD.
APPARATUS
FOR TREATING CLUB FEET.

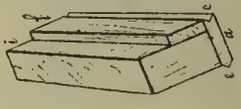


106,908, STEPHEN WOODARD. HARROW.
ALBERT WOODARD.



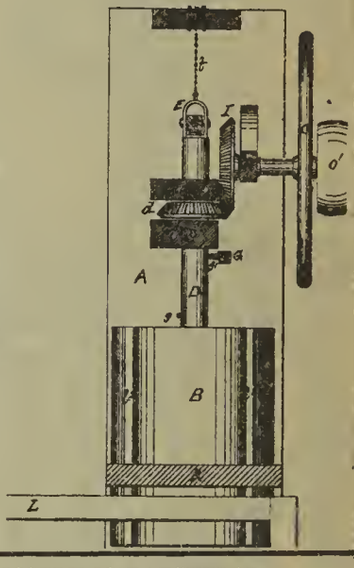
106,909, CHARS. E. YAGER.
BLACKING-BOX AND BRUSH.

106,910,
HENRY J. ALVORD.
WOOD-PAVEMENT.

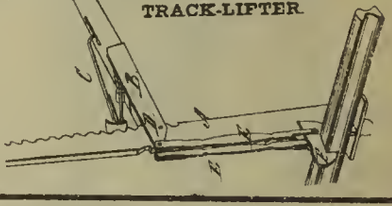


106,911, DANIEL ARNDT. CEMENT.

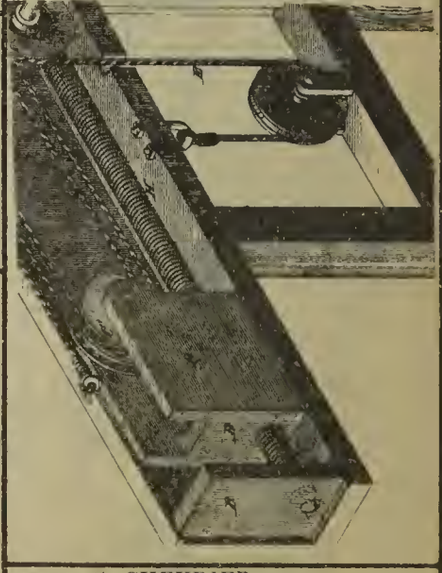
106,912, BENJAMIN F. BASHOR.
MACHINES FOR PACKING FLOUR.



106,913, JOSEPH M. BATCHELOR.
TRACK-LIFTER.

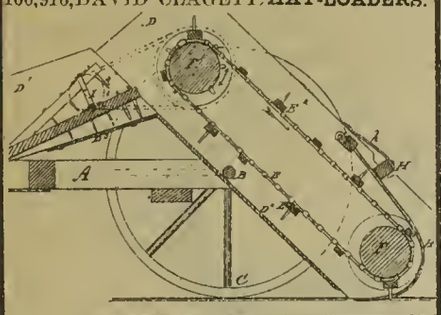


106,914, MICHAEL K. CARPENTER.
HOISTING APPARATUS.

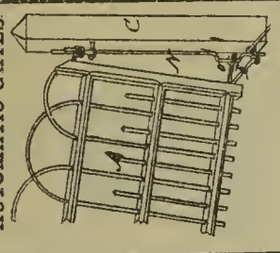


106,915, G. CHEVRIER.
TREATING ACID TARS FROM COAL.

106,916, DAVID CLAGETT. **HAY-LOADERS.**

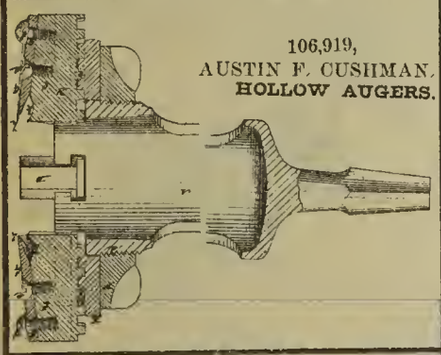


106,917, J. B. COTTOM. **AUTOMATIC GATES.**

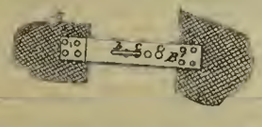


106,918, B. R. CROASDALE. **FERTILIZERS.**

106,919, AUSTIN F. CUSHMAN. **HOLLOW AUGERS.**

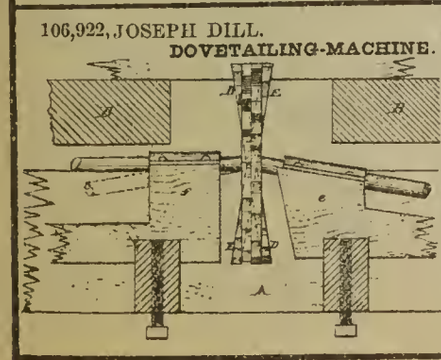


106,920, JOSEPH E. DALLON. **FASTENING FOR GARMENTS.**



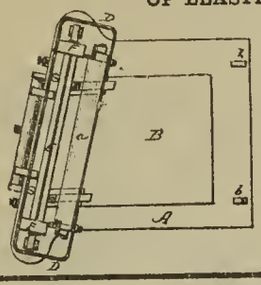
106,921, ALEXANDER T. DE PUY. **CASE-STANDS.**

106,922, JOSEPH DILL. **DOVETAILING-MACHINE.**



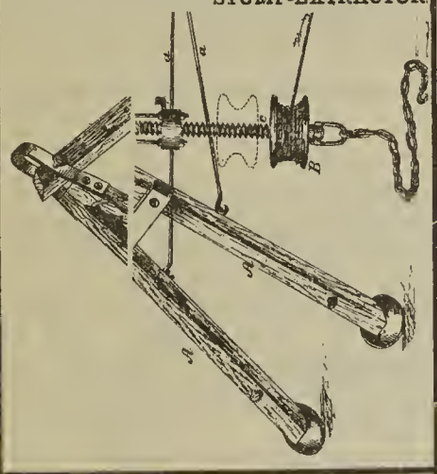
106,923, WILLIAM W. DUDLEY. **LIQUID SLATING FOR FORMING BLACK-BOARDS, &c.**

106,924, CHAS. A. ENSIGN. **APPARATUS FOR THE MANUFACTURE OF ELASTIC FABRICS.**

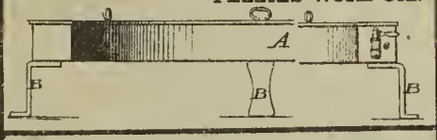


106,925, GEORGE PENRICE FARMER. **SPOOL AND NEEDLE-THREADER.**

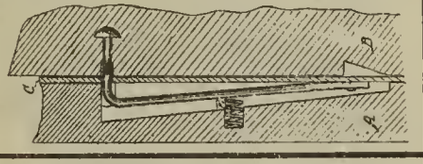
106,926, ENOCH FARNSWORTH. **STUMP-EXTRACTOR.**



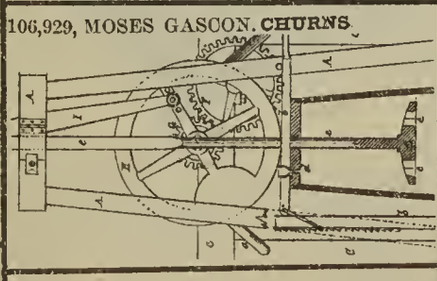
106,927, JOSHUA R. FAUS. **APPARATUS FOR SATURATING FELLIES WITH OIL.**



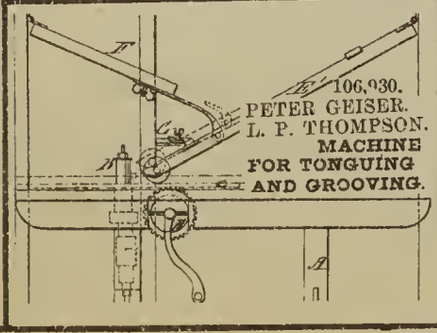
106,928, HENRY FICKEL. **SASH-FASTENERS.**



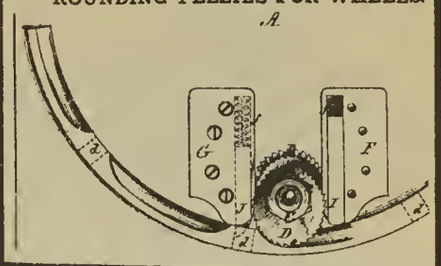
106,929, MOSES GASCON. **CHURNS.**



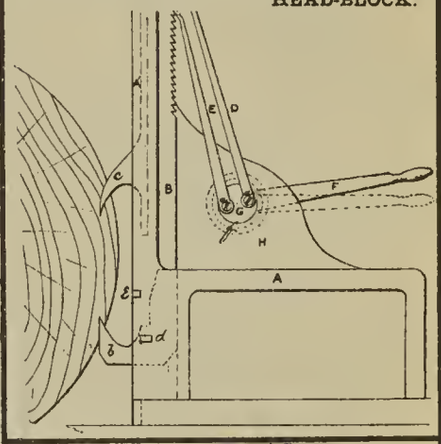
106,930, PETER GEISER. L. P. THOMPSON. **MACHINE FOR TONGUING AND GROOVING.**



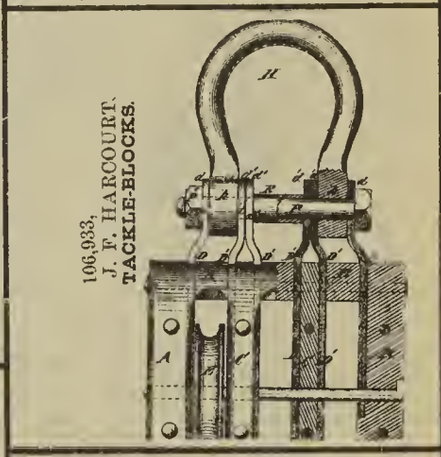
106,931, HENRY A. GORE. **MACHINE FOR ROUNDING FELLIES FOR WHEELS.**



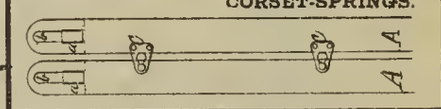
106,932, HENRY H. GRIDLEY. **HEAD-BLOCK.**



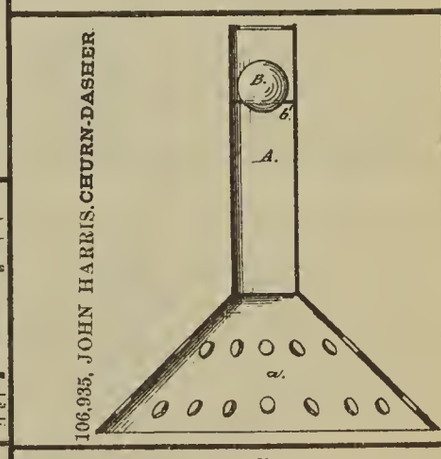
106,933, J. F. HARCOURT. **TACKLE-BLOCKS.**



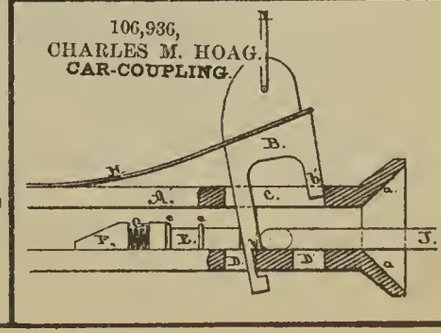
106,934, THOMAS A. HARES. **CORSET-SPRINGS.**

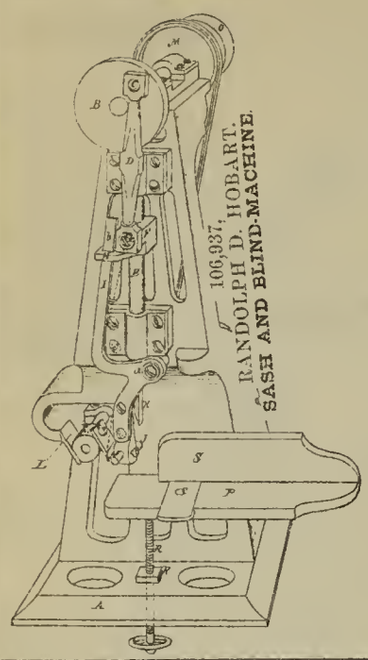


106,935, JOHN HARRIS. **CHURN-DASHER.**



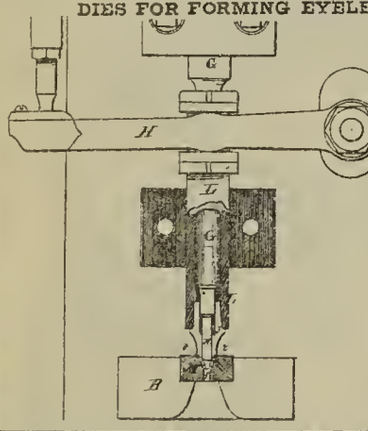
106,936, CHARLES M. HOAG. **CAR-COUPLING.**



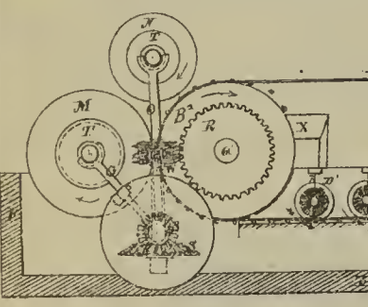


106,937, RANDOLPH D. HOBART.
SASH AND BLIND-MACHINE.

106,938, ESEK TALLMAN,
NICHOLAS G. HOXSIE.
DIES FOR FORMING EYELETS.

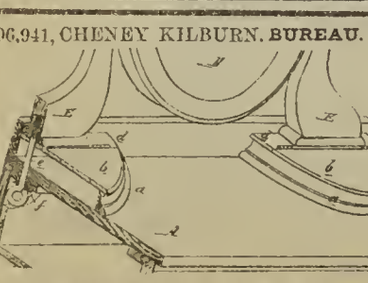


106,939, ESEK TALLMAN.
NICHOLAS G. HOXSIE.
MACHINES FOR CUTTING OUT THE ENDS OF EYELETS.

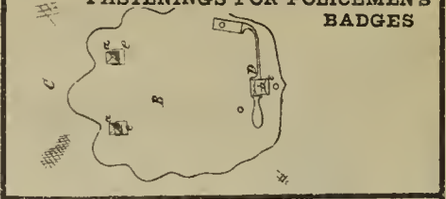


106,940, WILLIAM H. HUNT
RAILROAD-CAR VENTILATOR.

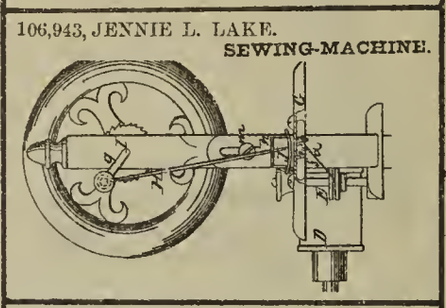
106,941, CHENEY KILBURN. BUREAU.



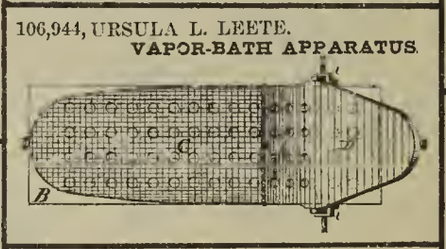
106,942, THOMAS KIRKPATRICK.
FASTENINGS FOR POLICEMEN'S BADGES



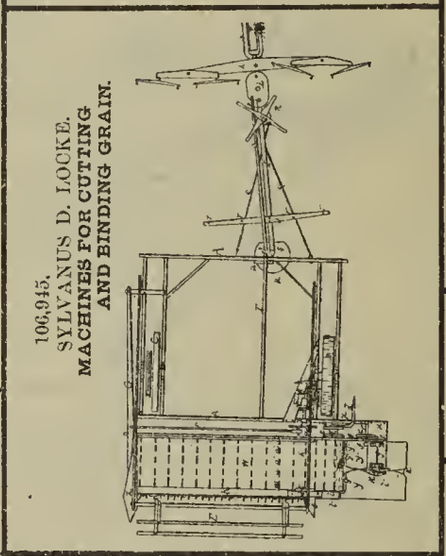
106,943, JENNIE L. LAKE.
SEWING-MACHINE.



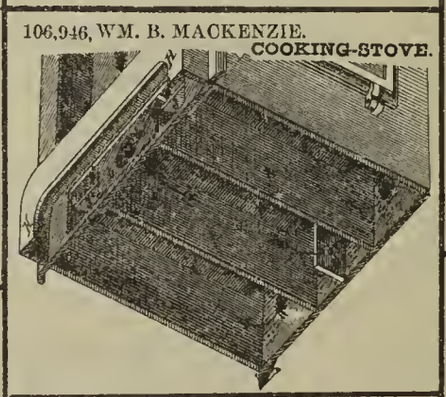
106,944, URSULA L. LEETE.
VAPOR-BATH APPARATUS.

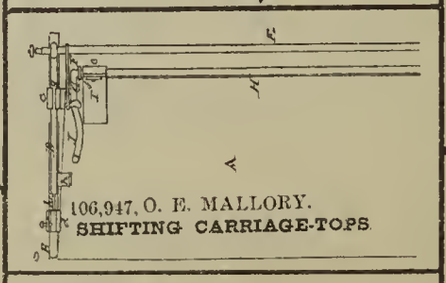


106,945, SYLVANUS D. LOCKE.
MACHINES FOR CUTTING AND BINDING GRAIN.



106,946, WM. B. MACKENZIE.
COOKING-STOVE.

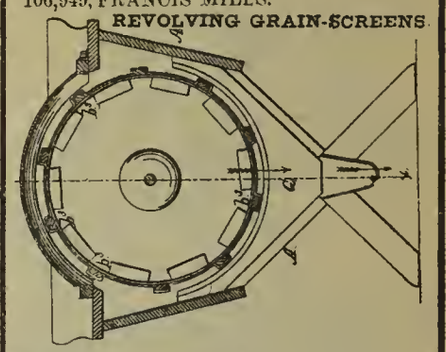




106,947, O. E. MALLORY.
SHIFTING CARRIAGE-TOPS.

106,948, H. W. MASON.
HARVESTER-CUTTER.

106,949, FRANCIS MILLS.
REVOLVING GRAIN-SCREENS.

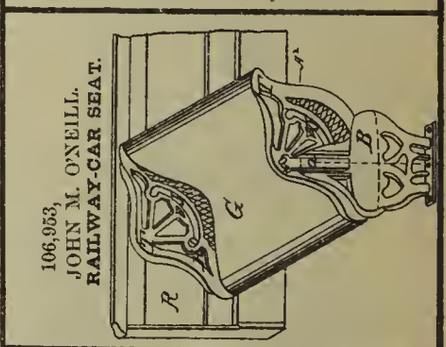


106,950, M. L. NICKELS.
FEEDER FOR GRAIN-DRILLS.

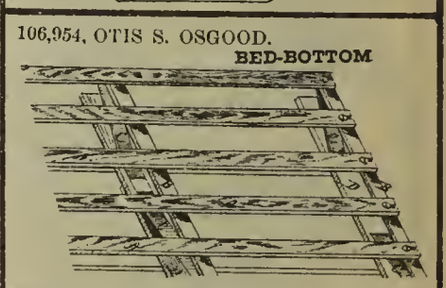
106,951, R. W. NORTON.
MACHINES FOR MAKING WIRE BELLS.

106,952, HENRY ODENKIRCHEN.
PACKAGE FOR TEA AND COFFEE.

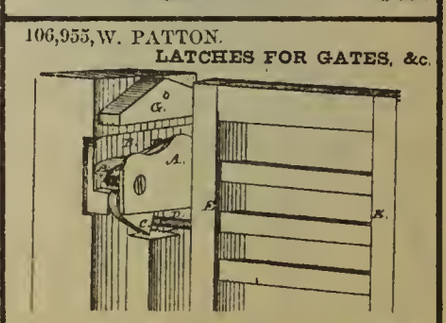
106,953, JOHN M. O'NEILL.
RAILWAY-CAR SEAT.



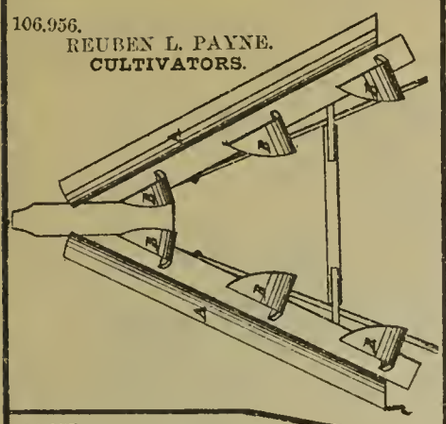
106,954, OTIS S. OSGOOD.
BED-BOTTOM



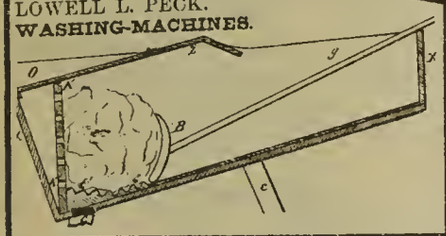
106,955, W. PATTON.
LATCHES FOR GATES, &c.



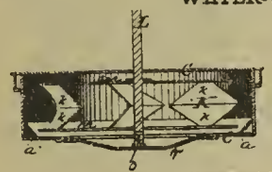
106,956.
REUBEN L. PAYNE.
CULTIVATORS.



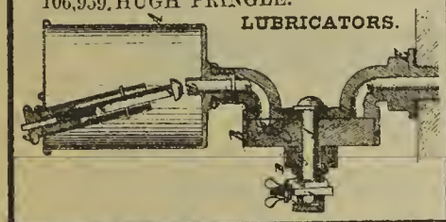
106,957,
LOWELL L. PECK.
WASHING-MACHINES.



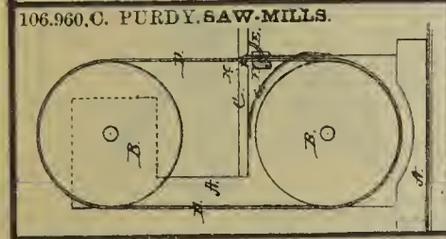
106,958. WILLIAM S. PLACE.
WATER-WHEELS



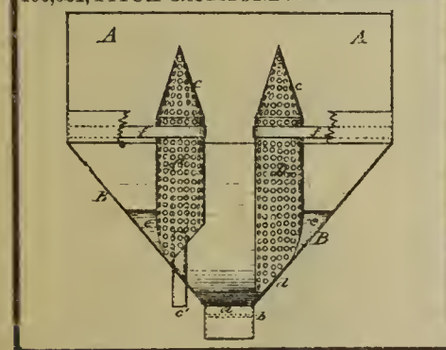
106,959. HUGH PRINGLE.
LUBRICATORS.



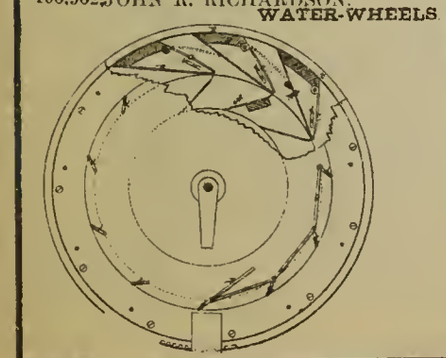
106,960. C. PURDY. SAW-MILLS.



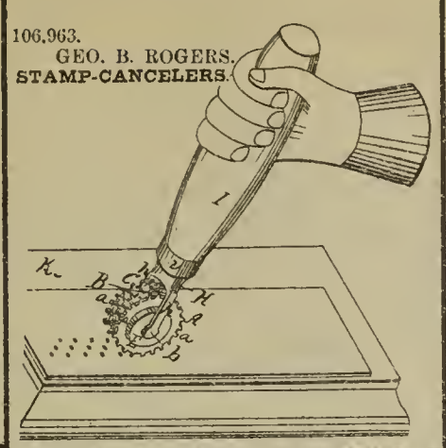
106,961, FITCH RAYMOND. GRAIN-BINS.



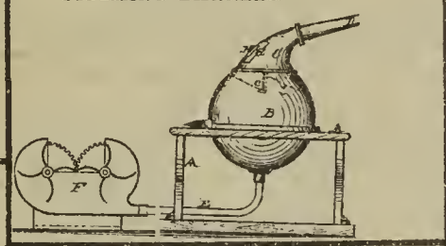
106,962. JOHN R. RICHARDSON.
WATER-WHEELS.



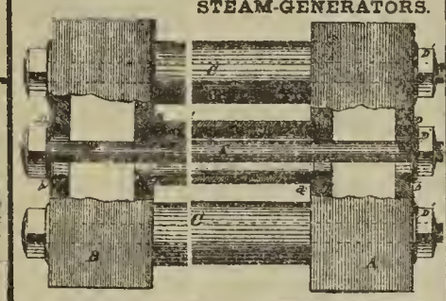
106,963.
GEO. B. ROGERS.
STAMP-CANCELERS.



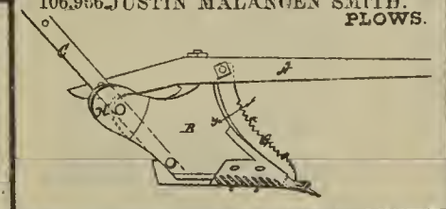
106,964. LOUIS SCHULZE.
APPARATUS FOR
PITCHING BARRELS.



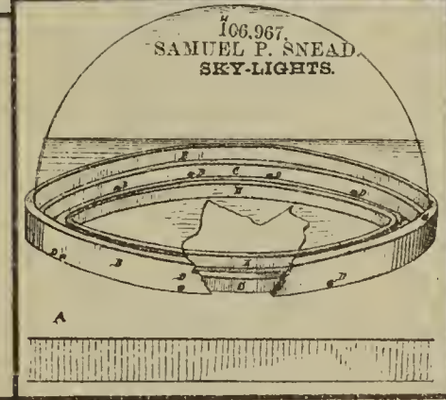
106,965, THOMAS SHARP.
C. S. S. GRIFFING.
STEAM-GENERATORS.



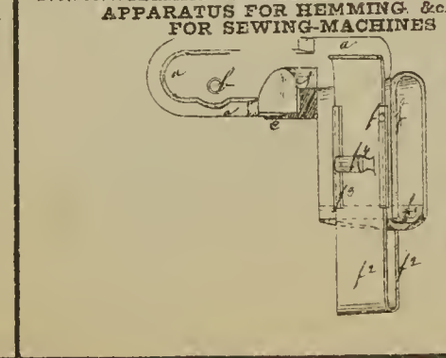
106,966. JUSTIN MALANGEN SMITH.
PLOWS.



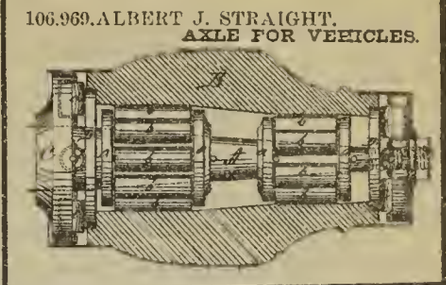
106,967.
SAMUEL P. SNEAD.
SKY-LIGHTS.



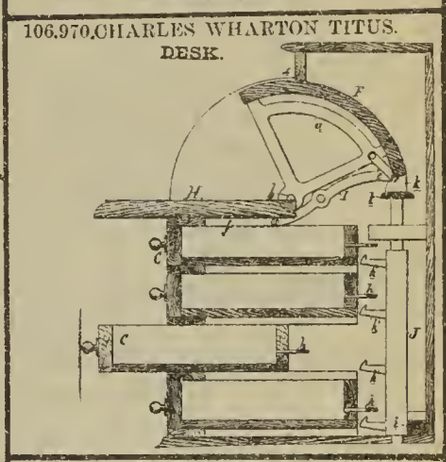
106,968. WILLIAM B. SNYDER.
APPARATUS FOR HEMMING, &c.
FOR SEWING-MACHINES



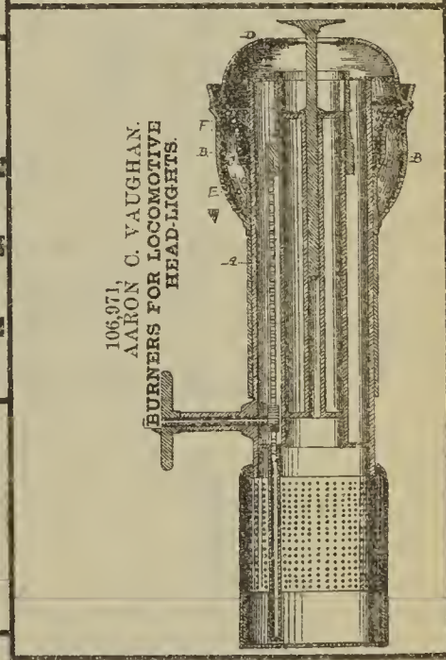
106,969. ALBERT J. STRAIGHT.
AXLE FOR VEHICLES.



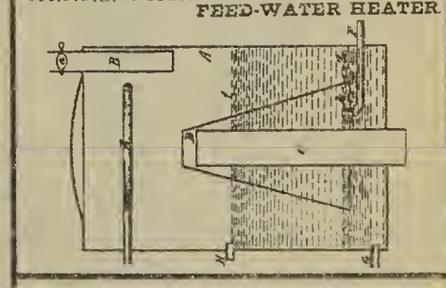
106,970. CHARLES WHARTON TITUS.
DESK.



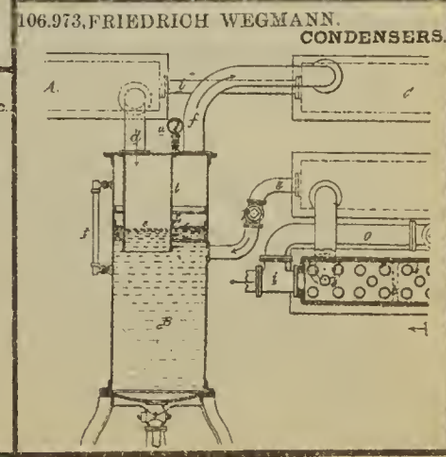
106,971,
AARON C. VAUGHAN.
BURNERS FOR LOCOMOTIVE
HEAD-LIGHTS.



106,972. G. WATERS.
FEED-WATER HEATER.



106,973. FRIEDRICH WEGMANN.
CONDENSERS.



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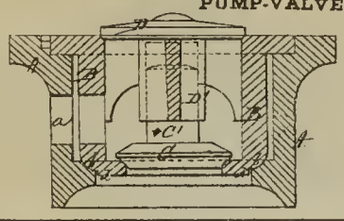
PUMP-VALVES.



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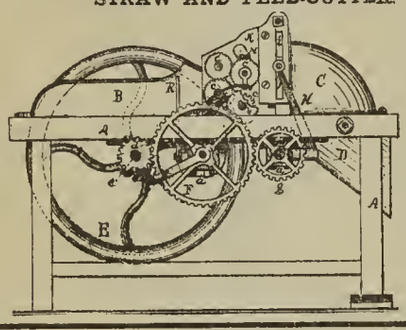

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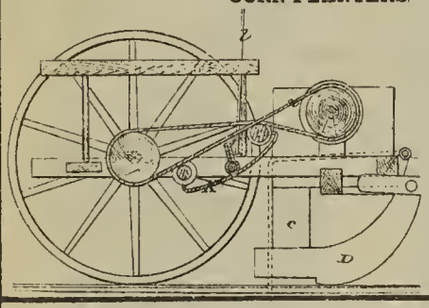
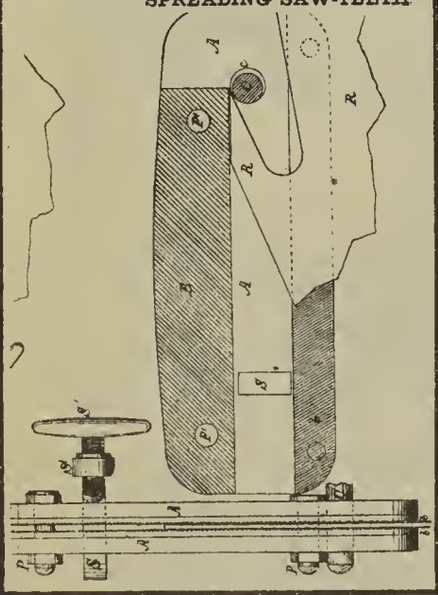


106,977, HOWELL W. WRIGHT.
COATING TACKS AND NAILS WITH COPPER.

106,978, JOHN ORM.
MACHINE FOR ELONGATING AND SPREADING SAW-TEETH.



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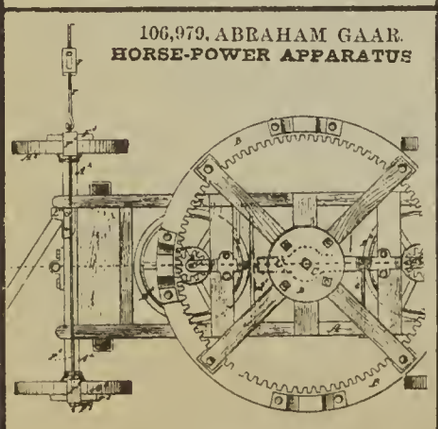
HORSE-POWER APPARATUS.



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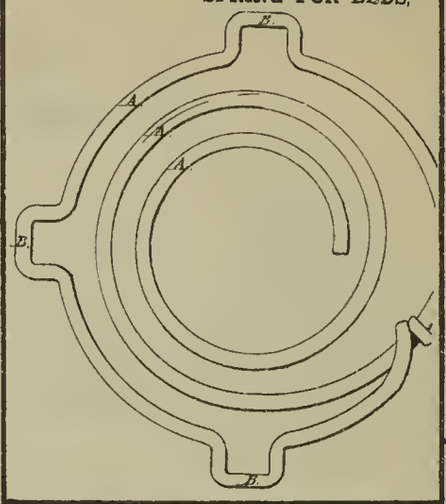
SPRING FOR BEDS.



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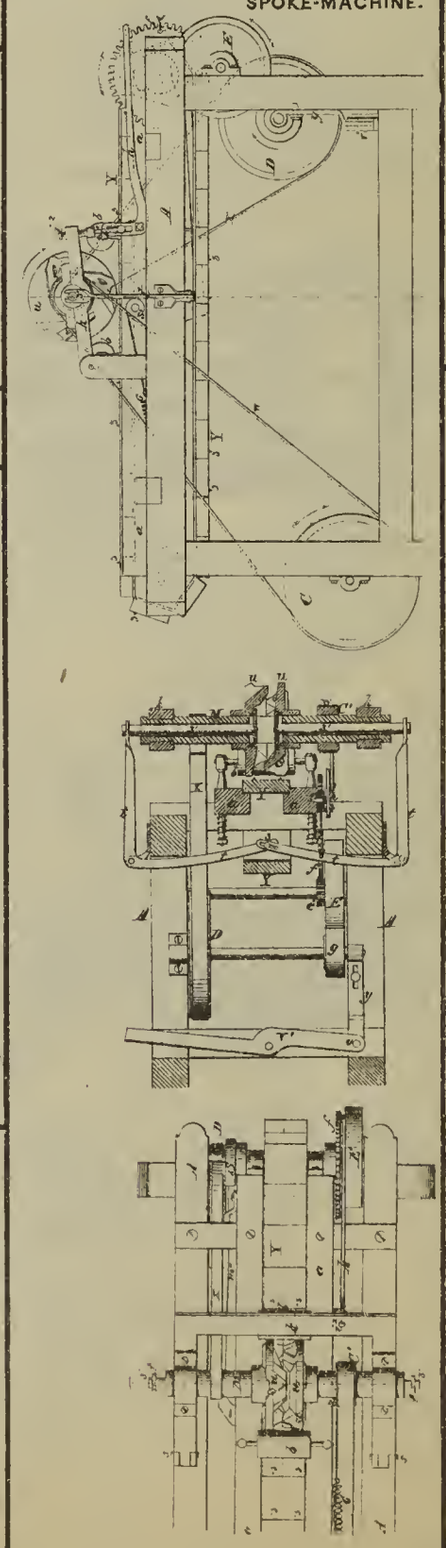
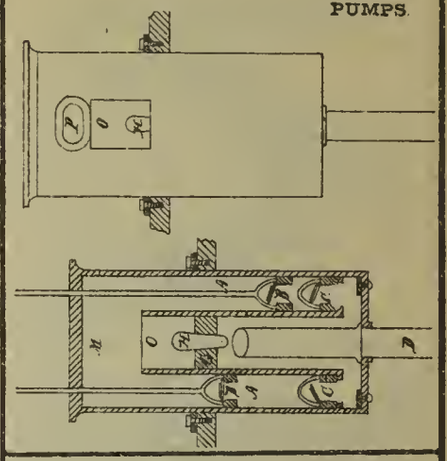
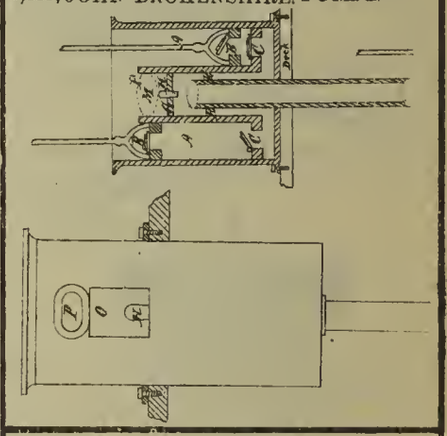
SPOKE-MACHINE.



4,110, JOHN BROKENSHIRE.
PUMPS.

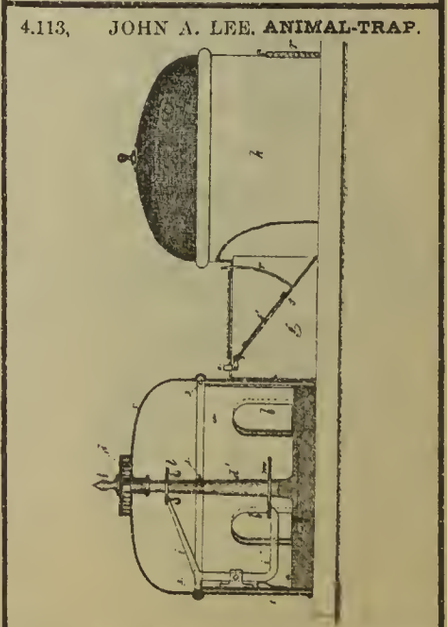


4,111, JOHN BROKENSHIRE. **PUMPS.**



4,112, JOHN JACOB LEBEAU.
PARING-KNIFE.

4,113, JOHN A. LEE. **ANIMAL-TRAP.**



ILLUSTRATIONS OF PATENTS

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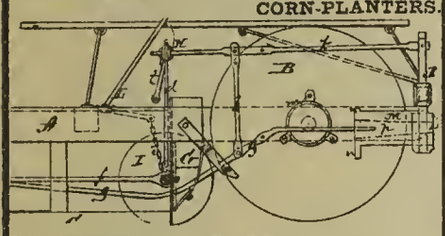
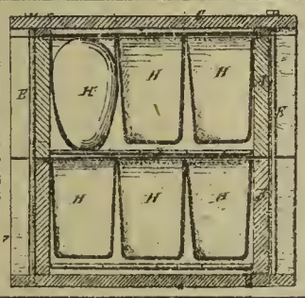
SEPTEMBER 6, 1870.

106,981, MICHAEL ACKERMAN.
CORN-PLANTERS.



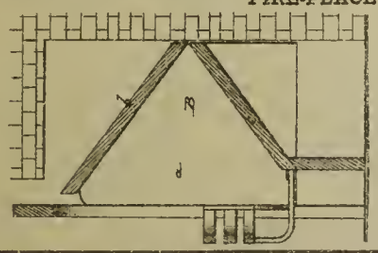
106,982, JAMES H. ANDREWS.
GANG-PLOWS.

106,983.
JAS. R. ASHER.
EGG-CARRIERS.



106,984, CHARLES W. BAILEY.
DETACHABLE BOOT AND SHOE-HEEL.

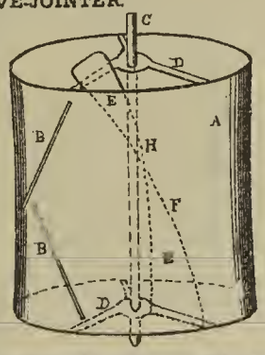
106,985, THOMAS W. BAIRD.
FIRE-PLACE.



106,986,
C. L. W. BAKER.
MOP.

106,987, GUSTAV A. BECKER.
FOUNTAIN PENS.

106,988, JOHN B. BELL.
STAVE-JOINTER.



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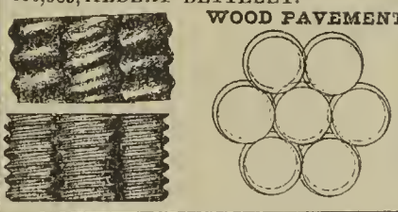
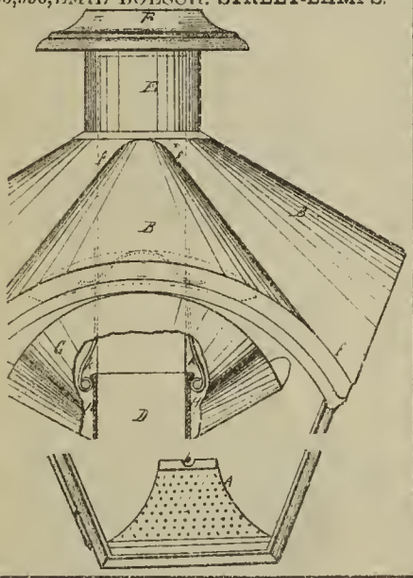


106,990, EMIL BOESCH. **STREET-LAMPS.**



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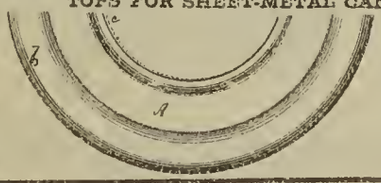
TOPS FOR SHEET-METAL CANS.



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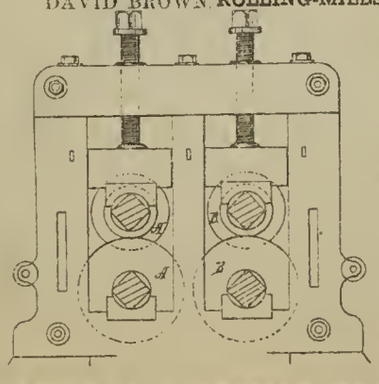
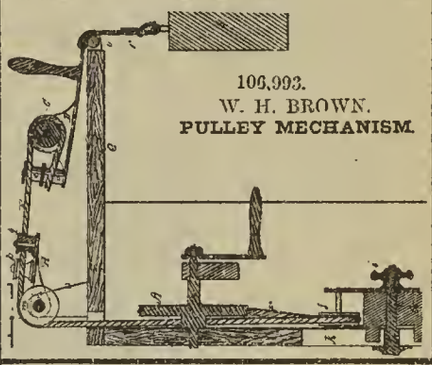
DAVID BROWN. **ROLLING-MILLS.**



106,993.
W. H. BROWN.
PULLEY MECHANISM.



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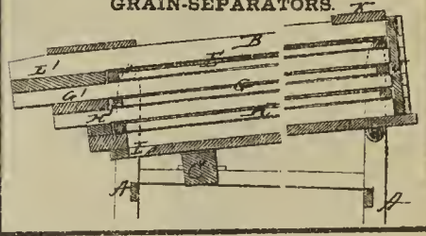
E. R. J. UEBERROTH.
GRAIN-SEPARATORS.



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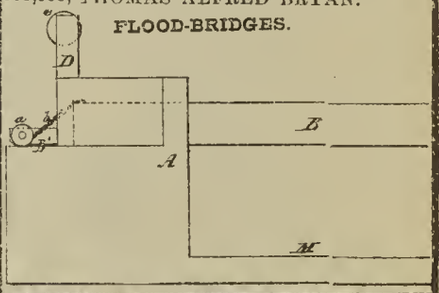
FLOOD-BRIDGES.



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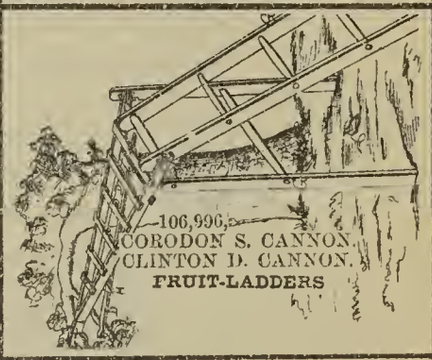
CORODON S. CANNON.
CLINTON D. CANNON.
FRUIT-LADDERS.



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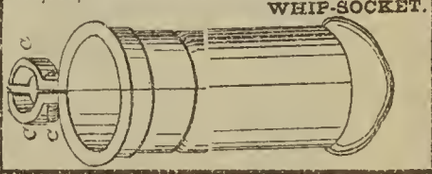
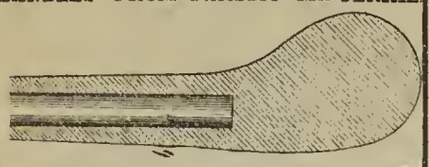
BEDSTEAD-FASTENING.

106,998, EDWIN CHAMBERLIN.
WHIP-SOCKET.

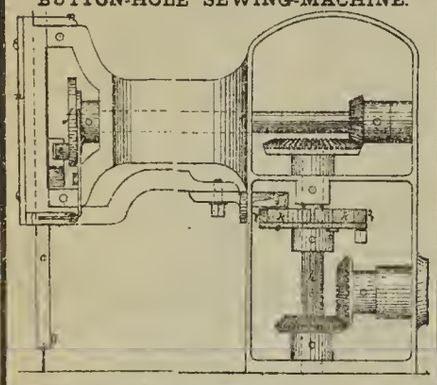


106,999, GILBERT W. CHAPIN.
ADDING-MACHINES.

107,000, LEVI CHAPMAN.
MODE OF FORMING UMBRELLA HANDLES FROM PLASTIC MATERIAL.



107,001, WILLIAM CHICKEN.
BUTTON-HOLE SEWING-MACHINE.



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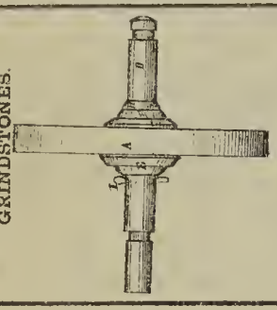
METHOD OF HANGING GRINDSTONES.



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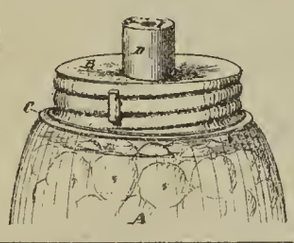
FRUIT-JAR COVER.



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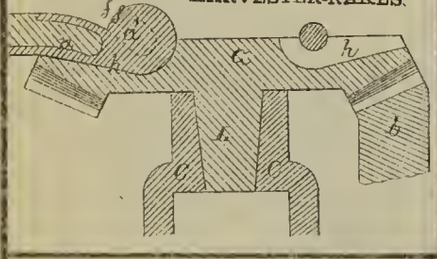
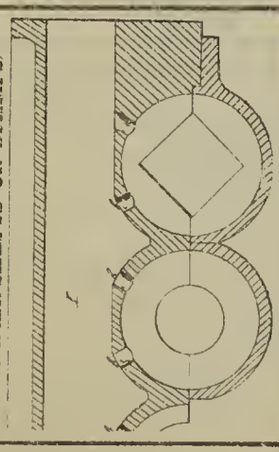
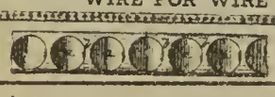
HARVESTER-RAKES.



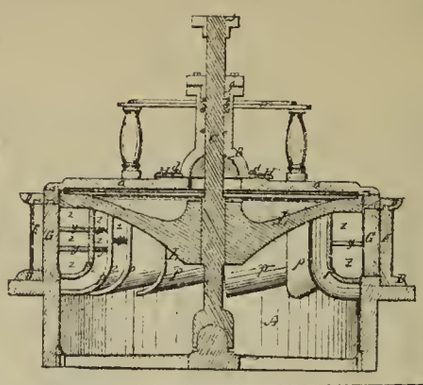
107,005, Z. E. COFFIN.
DEVICES FOR LUBRICATING, COOLING, AND WASHING VERTICAL HAMMER-SHAFTS OR STAMPS.



107,006, WM. F. COLLIER.
WIRE FOR WIRE GOODS.



107,007, J. M. COOK. WATER-WHEELS.



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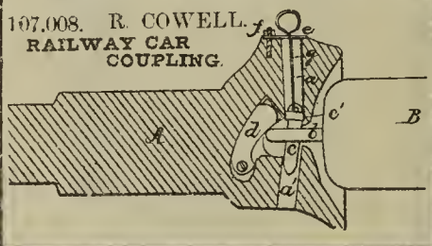
RAILWAY CAR COUPLING.



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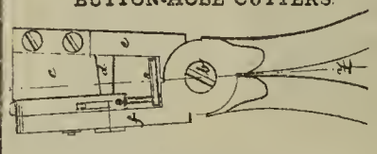
BUTTON-HOLE CUTTERS.



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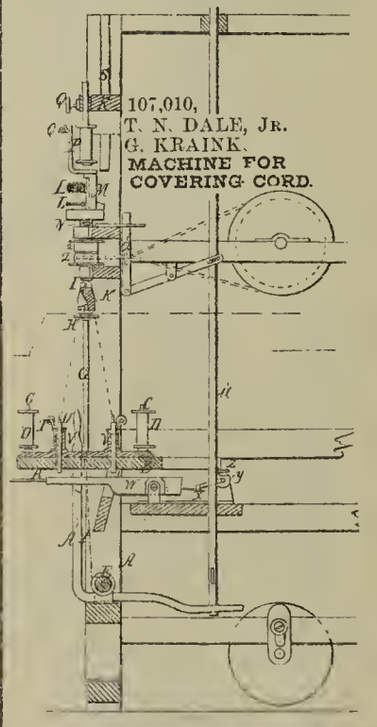
MACHINE FOR COVERING CORD.



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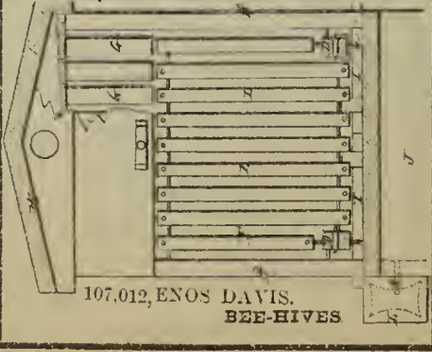
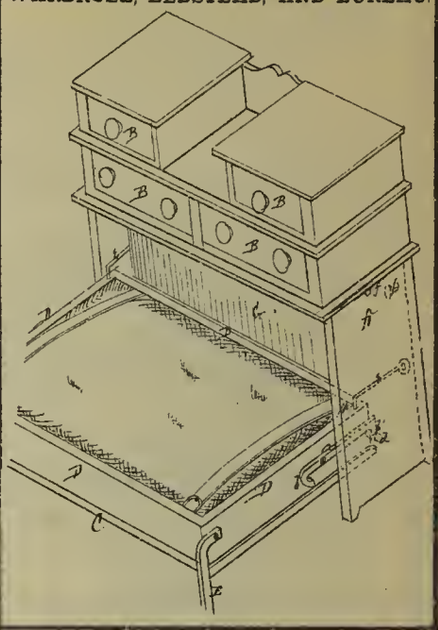
MAXILLARY COMPRESS.

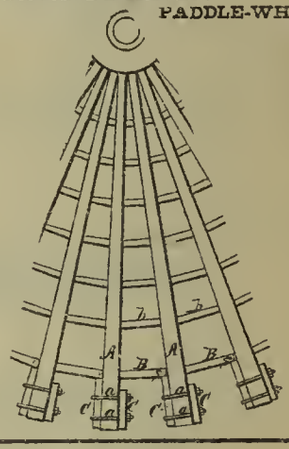


107,012, ENOS DAVIS.
BEE-HIVES.

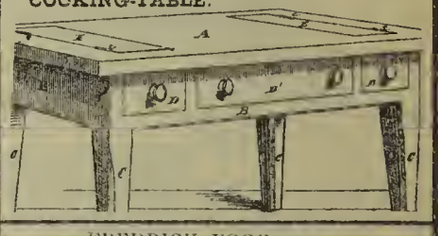
107,013, JOHN ROLPH DAVIS. FREDERICK ROMINGER.
WARDROBE, BEDSTEAD, AND BUREAU.



107,014, DAVID DE HAVEN.
PADDLE-WHEELS.

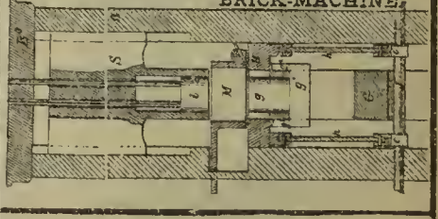


107,015, ELIZA D. DODGE.
COCKING-TABLE.

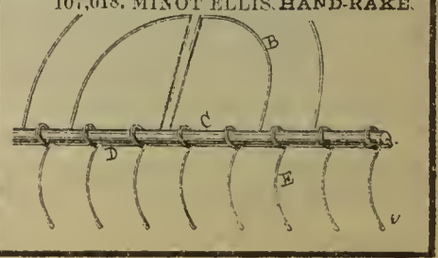


FREDRICK EGGE.
107,016, ROBERT W. CHURCHILL.
IMPLEMENT FOR CUTTING THREAD.

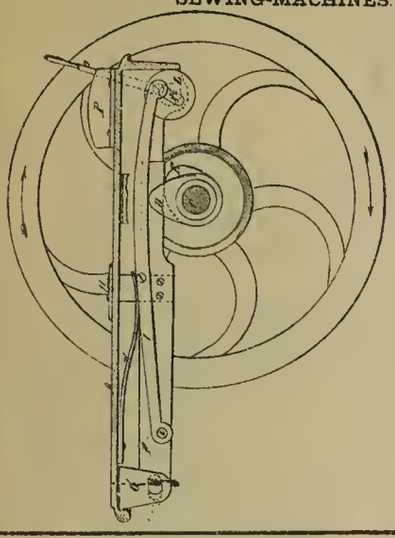
107,017, JOSIAH S. ELLIOTT.
BRICK-MACHINE.



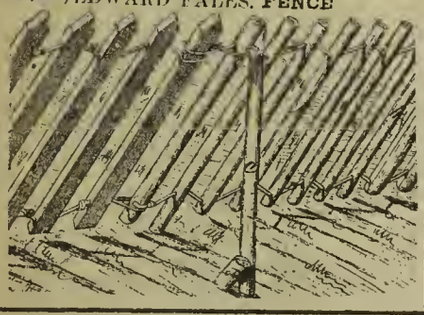
107,018, MINOT ELLIS. HAND-RAKE.

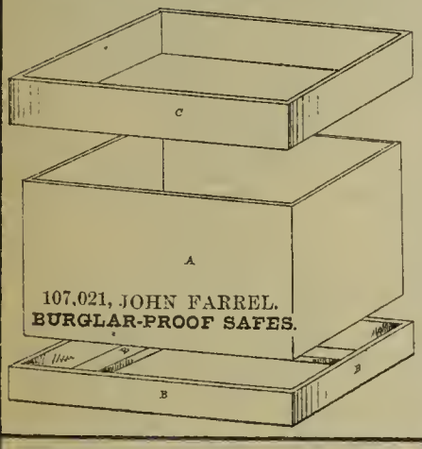


107,019, GEORGE A. FAIRFIELD.
FEEDING MECHANISM FOR SEWING-MACHINES.



107,020, EDWARD FALES. FENCE

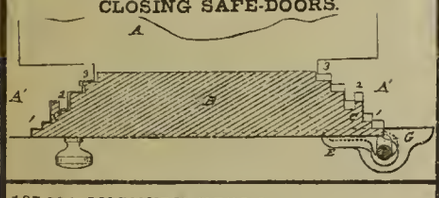




107,021, JOHN FARREL.
BURGLAR-PROOF SAFES.

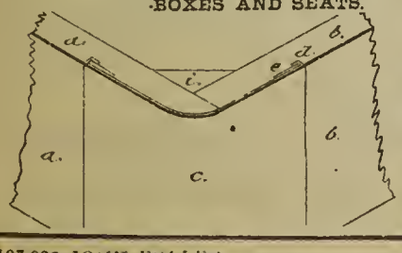
107,022, JOHN FARREL.
FILLING FOR FIRE-PROOF SAFES

107,023, JOHN FARREL.
MECHANISM FOR OPENING AND CLOSING SAFE-DOORS.

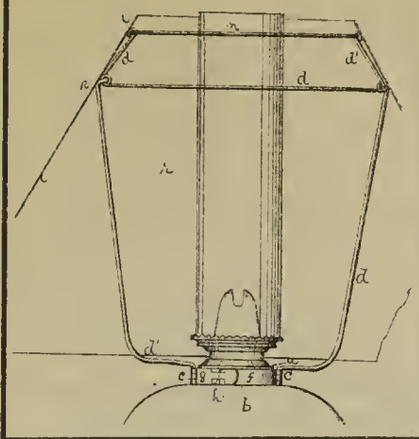


107,024, MICHELE FERRO.
MEDICAL COMPOUND FOR THE CURE OF FEVER AND AGUE.

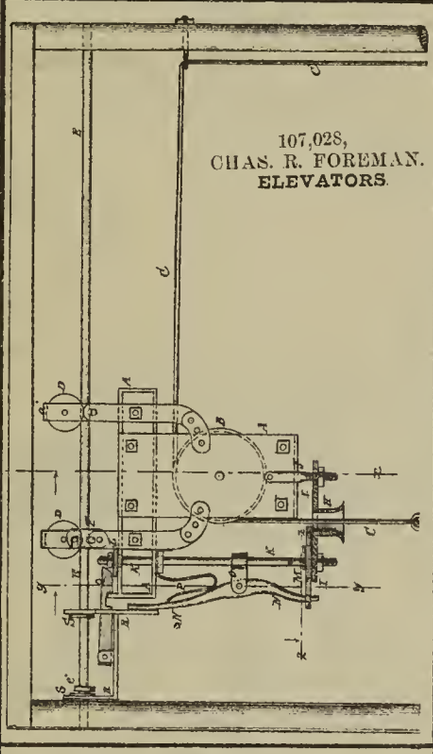
107,025, WILLET FISHER.
CORNER-SUPPORT FOR CARRIAGE-BOXES AND SEATS.



107,026, JOHN FOLLER.
LAMP-SHADE HOLDERS.

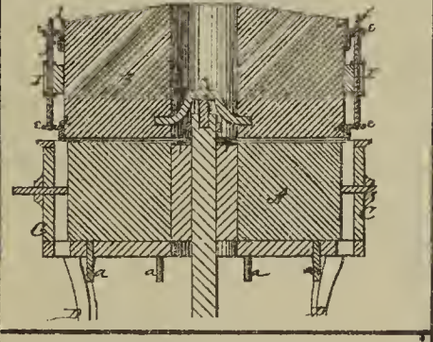


107,027, P. FOLLIET.
COMPOUNDS FOR DESTROYING THE OIDIUM IN VINES, PLANTS, &c.

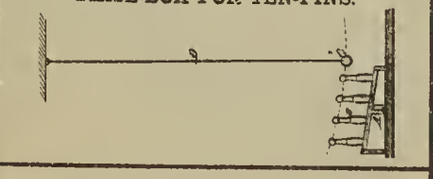


107,028,
CHAS. R. FOREMAN.
ELEVATORS.

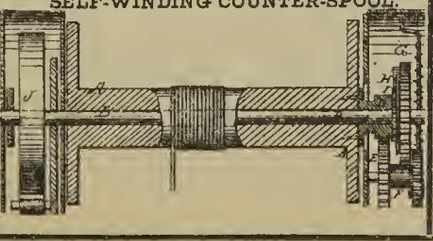
107,029, C. V. FOREMAN.
BALANCING MILLSTONES.



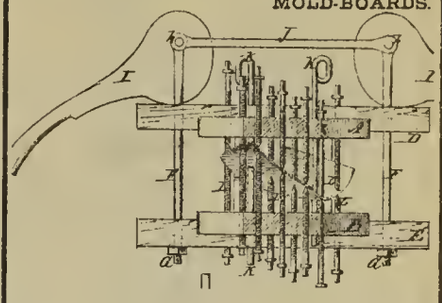
107,030, GEORGE B. FOWLER.
GAME-BOX FOR TEN-PINS.



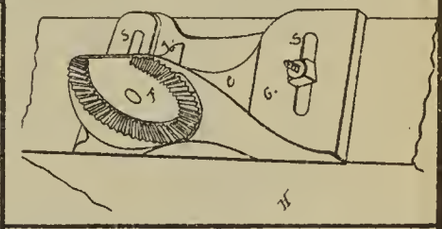
107,031, WILLIAM J. FOX.
SELF-WINDING COUNTER-SPOOL.



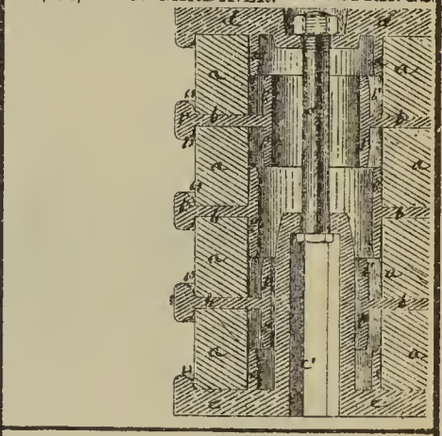
107,032, JONATHAN H. FRANKLIN
ADJUSTABLE DIE FOR BENDING MOLD-BOARDS.

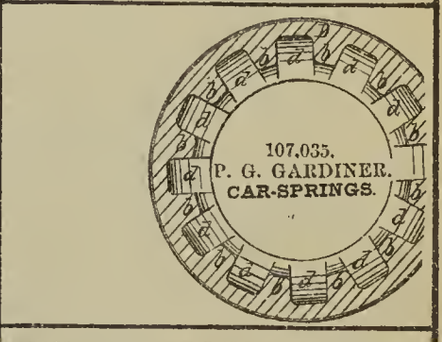


107,033, HORATIO GALE. PLOWS.



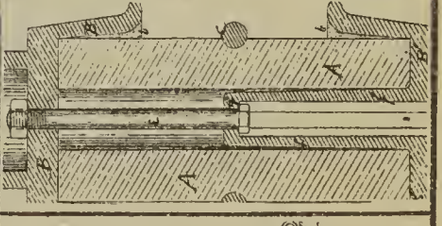
107,034, P. G. GARDINER. CAR-SPRINGS.



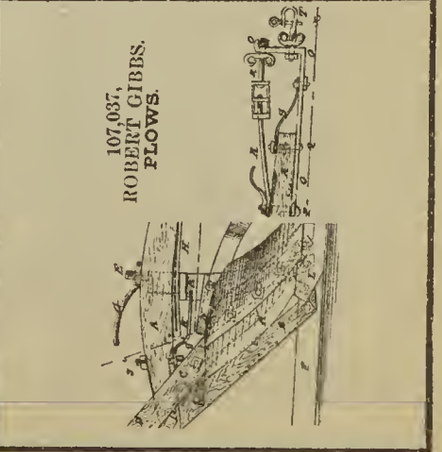


107,035.
P. G. GARDINER.
CAR-SPRINGS.

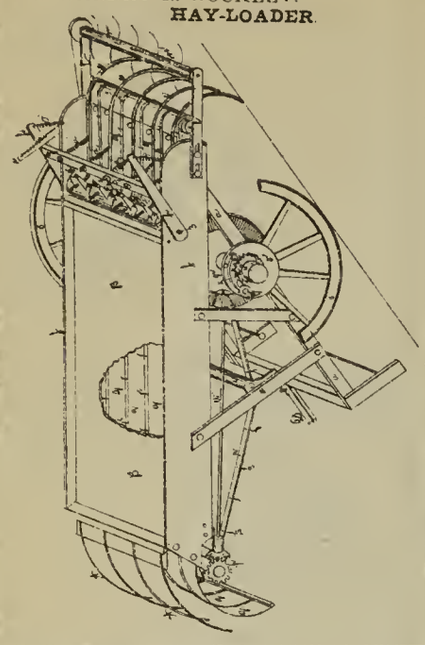
107,036, P. G. GARDINER. CAR-SPRINGS.



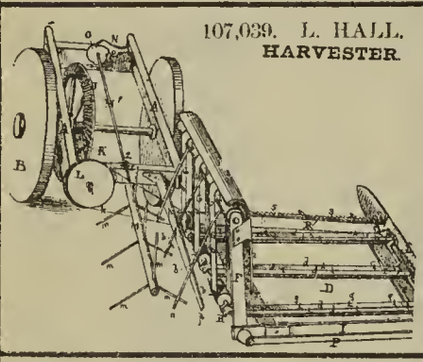
107,037,
ROBERT GIBBS.
PLOWS.



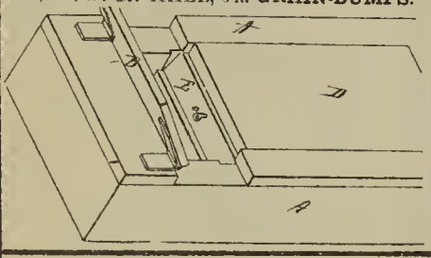
107,038, HENRY L. GOCKLEY.
HAY-LOADER.



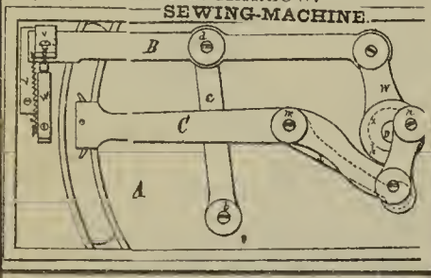
107,039. L. HALL.
HARVESTER.



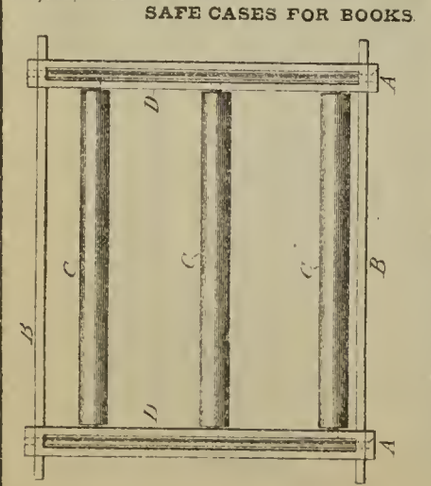
107,040, W. M. HALL, JR. GRAIN-DUMPS.



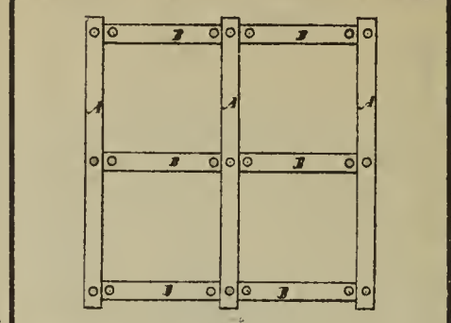
107,041, CHARLES F. HARLOW.
SEWING-MACHINE.



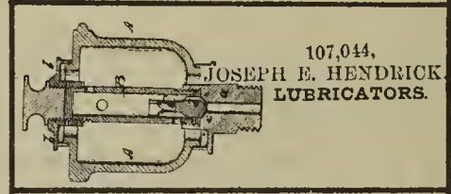
107,042, S. H. HARRIS.
SAFE CASES FOR BOOKS.



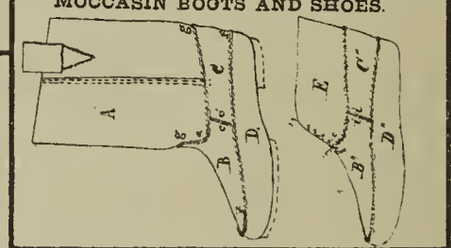
107,043, SAMUEL H. HARRIS.
FRAMES OF SAFE CASES FOR PAPERS.



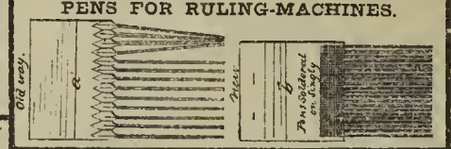
107,044,
JOSEPH E. HENDRICK.
LUBRICATORS.



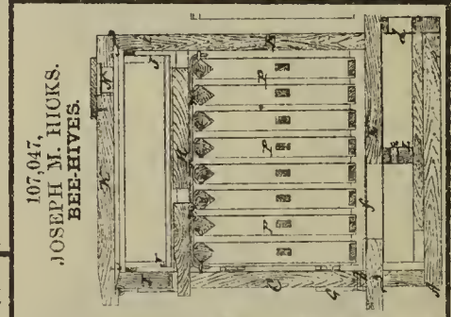
107,045, THOMAS HERSEY.
MOCCASIN BOOTS AND SHOES.



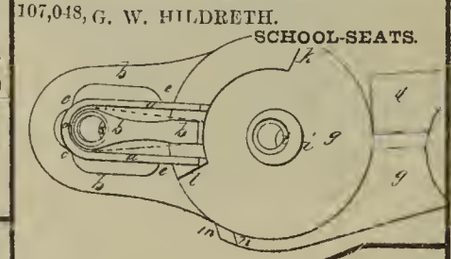
107,046, W. O. HICKOK.
PENS FOR RULING-MACHINES.



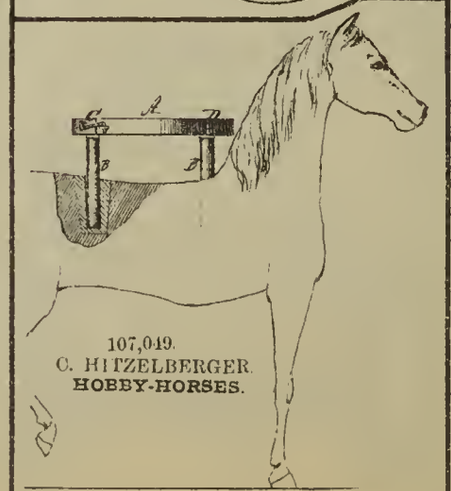
107,047,
JOSEPH M. HICKS.
BEE-HIVES.



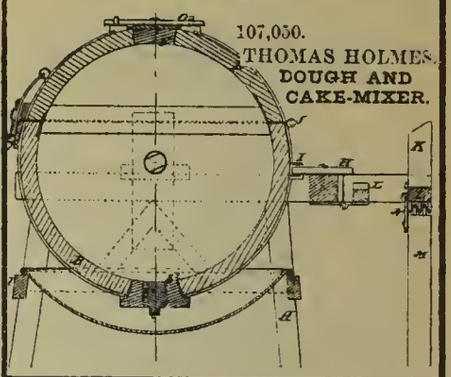
107,048, G. W. HILDRETH.
SCHOOL-SEATS.



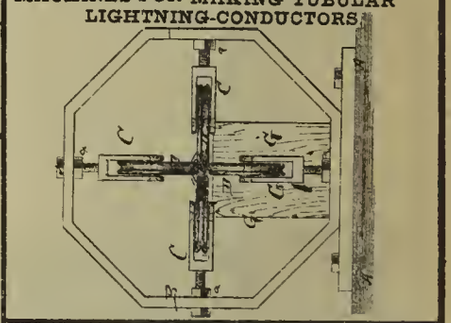
107,049.
C. HITZELBERGER.
HOBBY-HORSES.



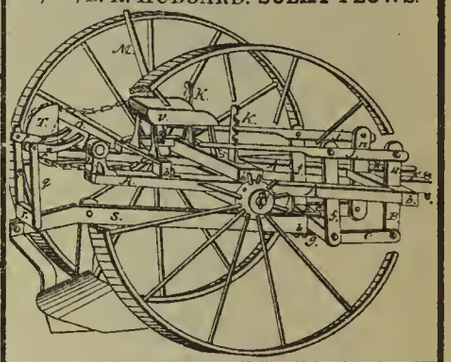
107,050.
THOMAS HOLMES.
DOUGH AND CAKE-MIXER.



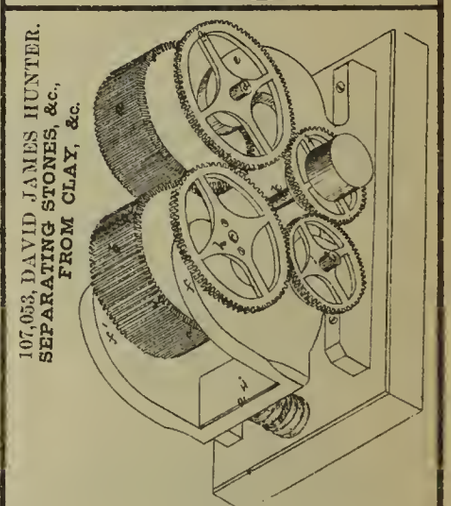
107,051, BENJAMIN F. HOUSEL.
SIMEON O. THAYER.
MACHINES FOR MAKING TUBULAR LIGHTNING-CONDUCTORS.



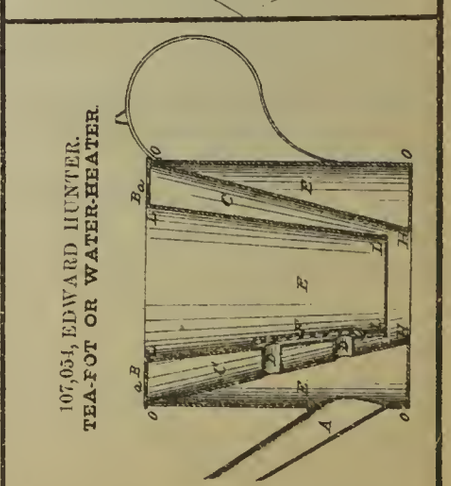
107,052, B. R. HUBBARD. SULKY-PLOWS.

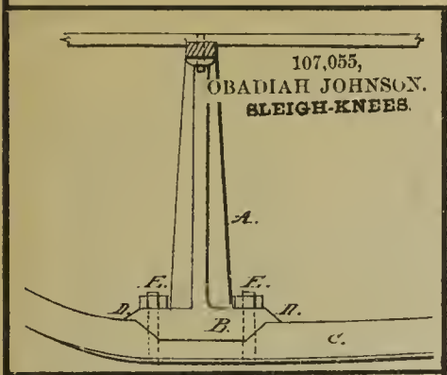


107,053, DAVID JAMES HUNTER.
SEPARATING STONES, &c.,
FROM CLAY, &c.

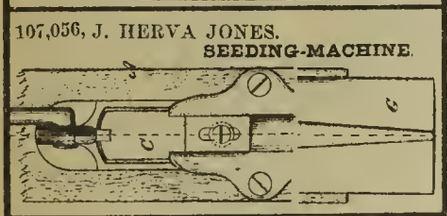


107,054, EDWARD HUNTER.
TEA-POT OR WATER-HEATER.

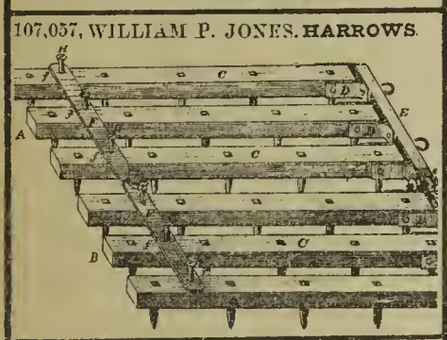




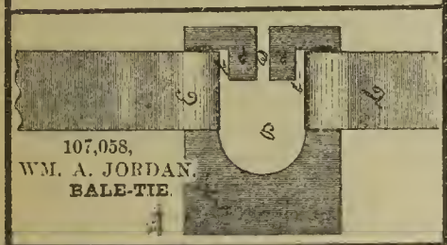
107,055, OBADIAH JOHNSON. SLEIGH-KNEES.



107,056, J. HERVA JONES. SEEDING-MACHINE.

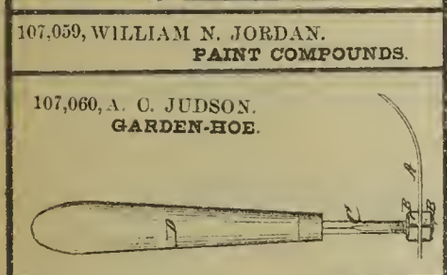


107,057, WILLIAM P. JONES. HARROWS.

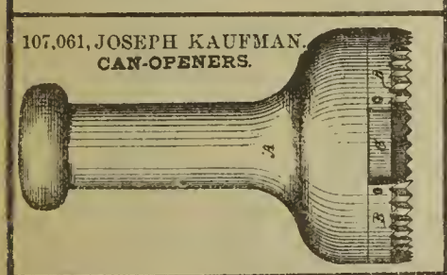


107,058, WM. A. JORDAN. BALE-TIE.

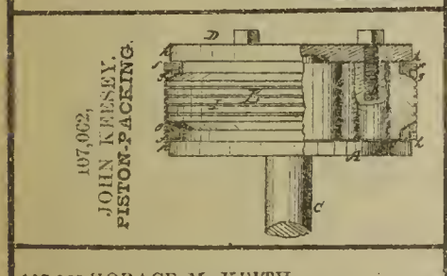
107,059, WILLIAM N. JORDAN. PAINT COMPOUNDS.



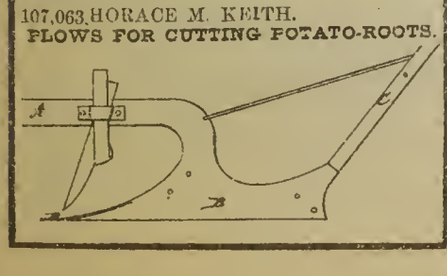
107,060, A. C. JUDSON. GARDEN-HOE.



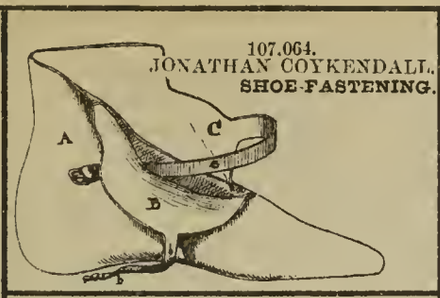
107,061, JOSEPH KAUFMAN. CAN-OPENERS.



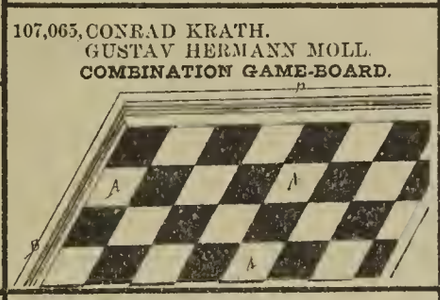
107,062, JOHN KEESEY. PISTON-PACKING.



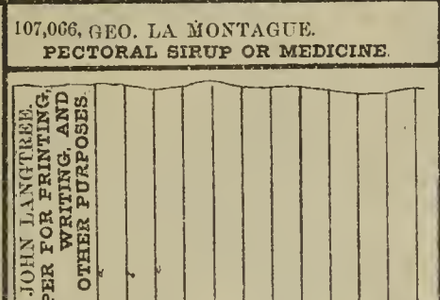
107,063, HORACE M. KEITH. PLOWS FOR CUTTING POTATO-ROOTS.



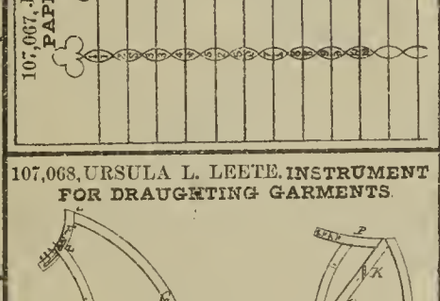
107,064, JONATHAN COYKENDALL. SHOE-FASTENING.



107,065, CONRAD KRATH. GUSTAV HERMANN MOLL. COMBINATION GAME-BOARD.

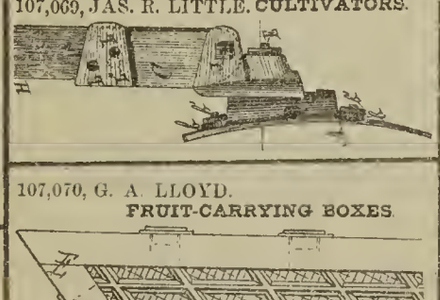


107,066, GEO. LA MONTAGUE. PECTORAL SIRUP OR MEDICINE.

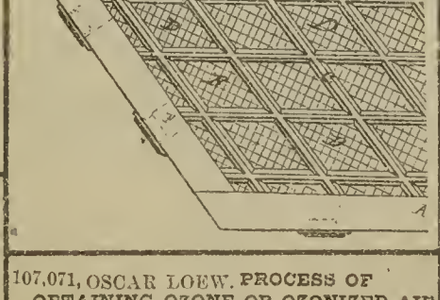


107,067, JOHN LANGTREE. PAPER FOR PRINTING, WRITING, AND OTHER PURPOSES.

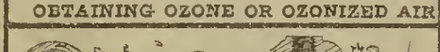
107,068, URSULA L. LEETE. INSTRUMENT FOR DRAUGHTING GARMENTS.



107,069, JAS. R. LITTLE. CULTIVATORS.

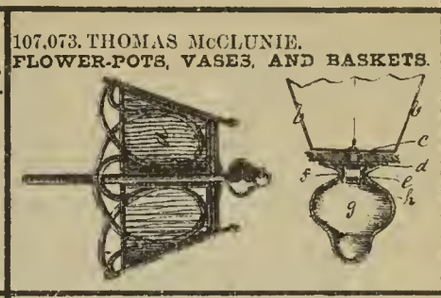


107,070, G. A. LLOYD. FRUIT-CARRYING BOXES.

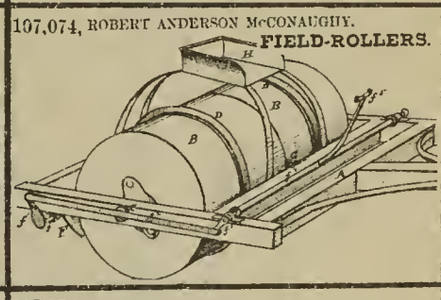


107,071, OSCAR LOEW. PROCESS OF OBTAINING OZONE OR OZONIZED AIR.

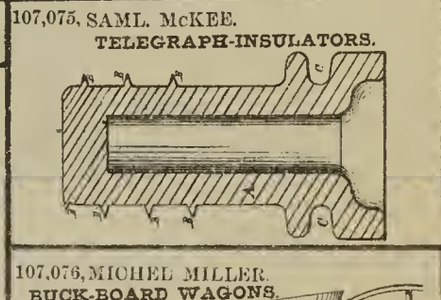
107,072, J. F. MARSH. VAPOR-BURNERS.



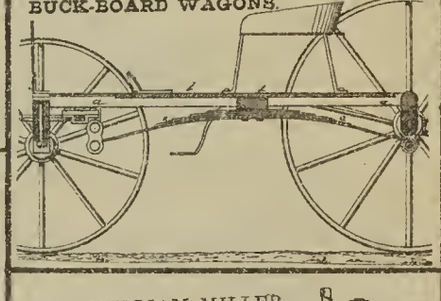
107,073, THOMAS McCLUNIE. FLOWER-POTS, VASES, AND BASKETS.



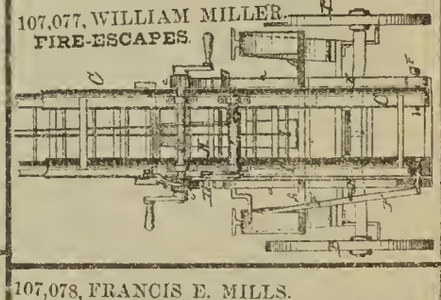
107,074, ROBERT ANDERSON McCONAUGHY. FIELD-ROLLERS.



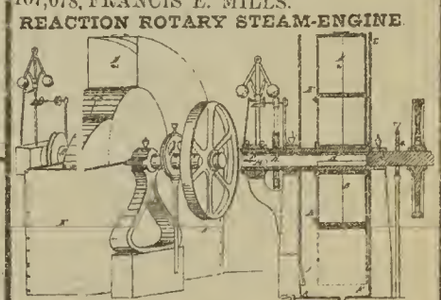
107,075, SAML. McKEE. TELEGRAPH-INSULATORS.



107,076, MICHEL MILLER. BUCK-BOARD WAGONS.

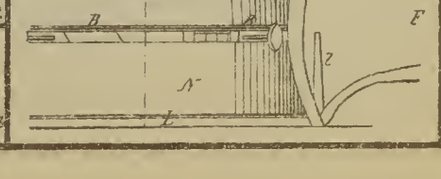


107,077, WILLIAM MILLER. FIRE-ESCAPES.

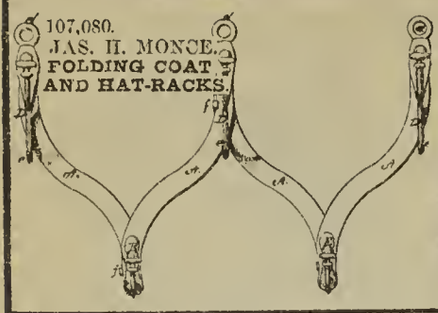


107,078, FRANCIS E. MILLS. REACTION ROTARY STEAM-ENGINE.

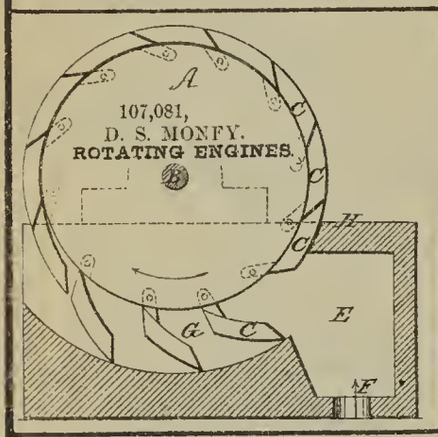
107,079, ROBERT B. MITCHELL. KEROSENE-STOVE.



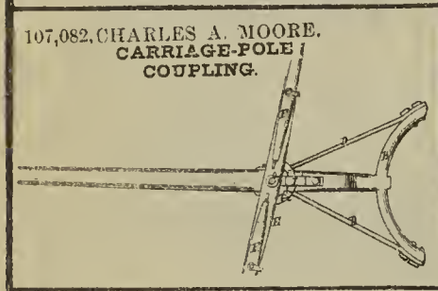
107,080. JAS. H. MONCE. FOLDING COAT AND HAT-RACKS.



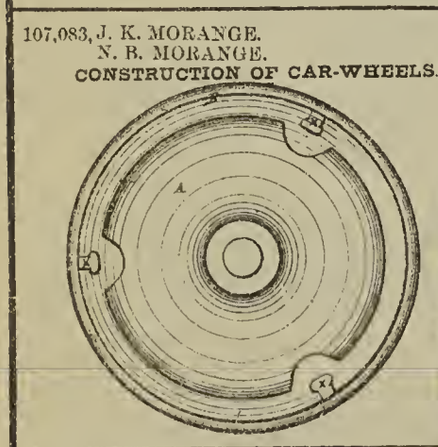
107,081, D. S. MONFY. ROTATING ENGINES.



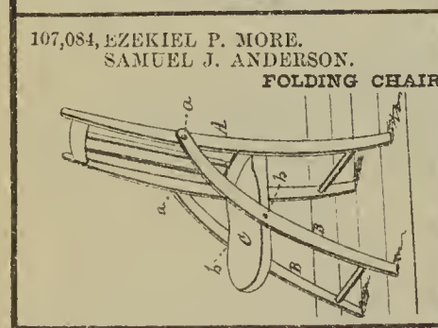
107,082, CHARLES A. MOORE. CARRIAGE-POLE COUPLING.



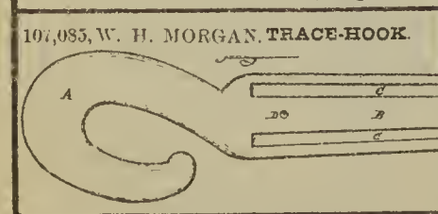
107,083, J. K. MORANGE. N. B. MORANGE. CONSTRUCTION OF CAR-WHEELS.



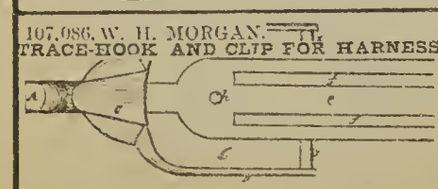
107,084, EZEKIEL P. MORE. SAMUEL J. ANDERSON. FOLDING CHAIR.



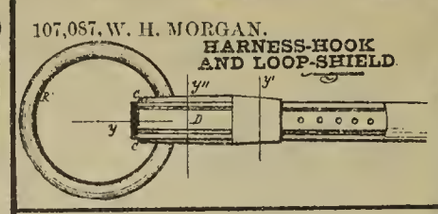
107,085, W. H. MORGAN. TRACE-HOOK.



107,086, W. H. MORGAN. TRACE-HOOK AND CLIP FOR HARNESS.

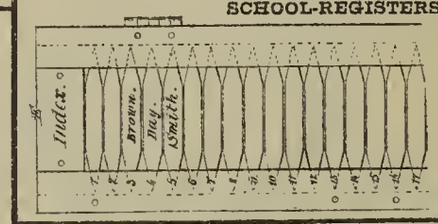


107,087, W. H. MORGAN. HARNESS-HOOK AND LOOP-SHIELD.

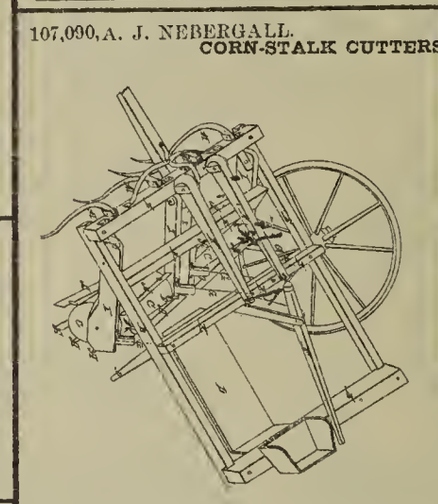


107,088, J. J. A. MOURIES. PRESERVING BREAD.

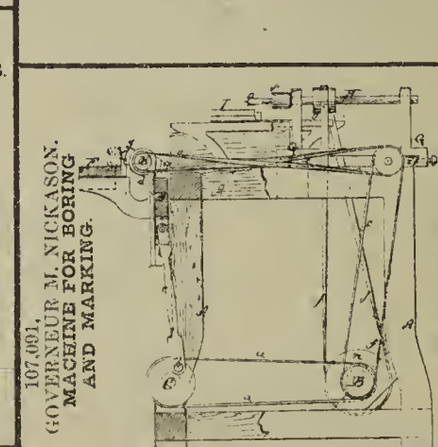
107,089, STEPHEN S. NASH. SCHOOL-REGISTERS.



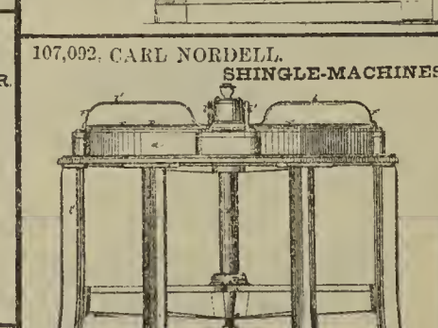
107,090, A. J. NEBERGALL. CORN-STALK CUTTERS.



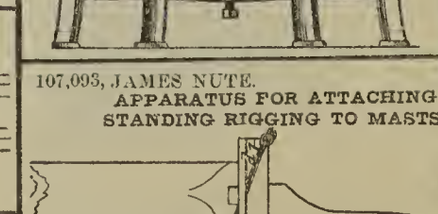
107,091, GOVERNEUR M. NICKASON. MACHINE FOR BORING AND MARKING.



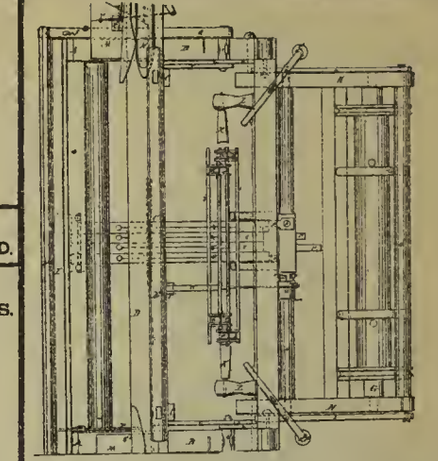
107,092, CARL NORDELL. SHINGLE-MACHINES.



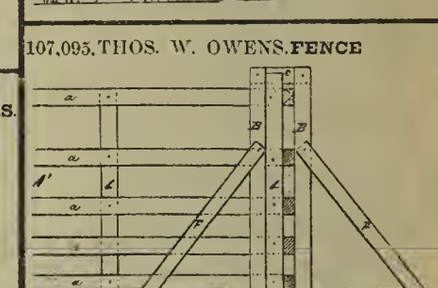
107,093, JAMES NUTE. APPARATUS FOR ATTACHING STANDING RIGGING TO MASTS.



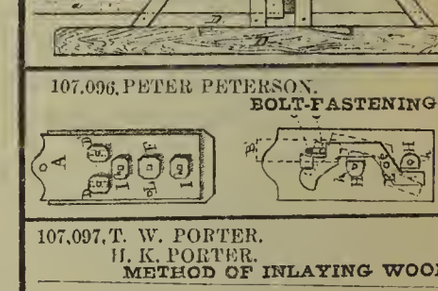
107,094, JAMES E. NUTE. HAND-LOOMS.



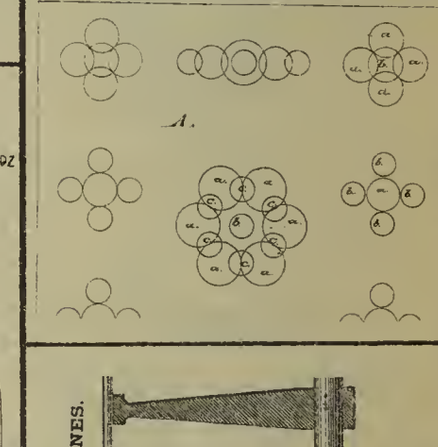
107,095, THOS. W. OWENS. FENCE



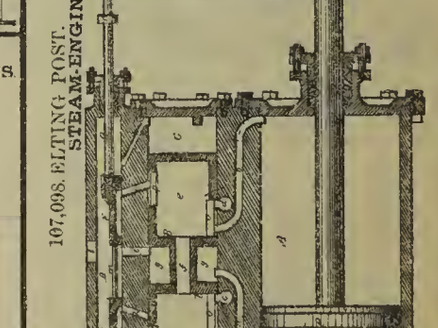
107,096, PETER PETERSON. BOLT-FASTENINGS.



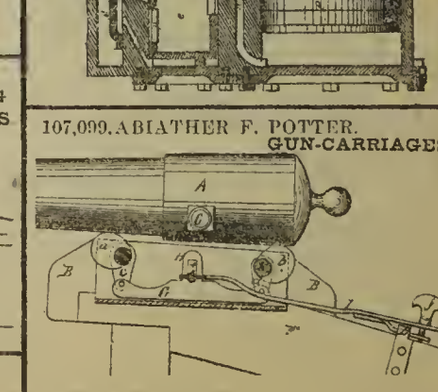
107,097, T. W. PORTER. H. K. PORTER. METHOD OF INLAYING WOOD.



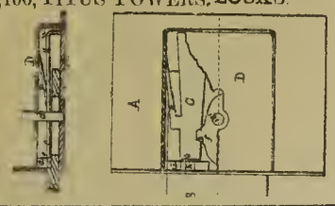
107,098, ELTING POST. STEAM-ENGINES.



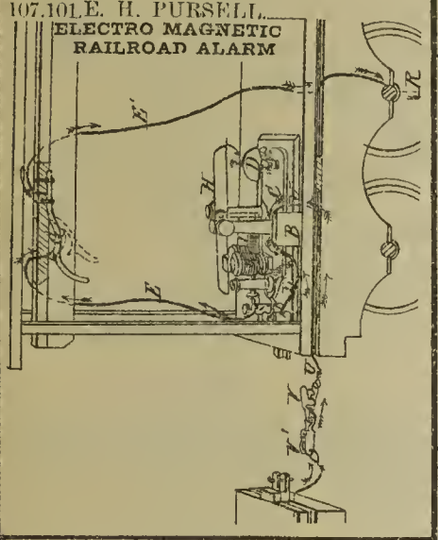
107,099, ABIATHER F. POTTER. GUN-CARRIAGES.



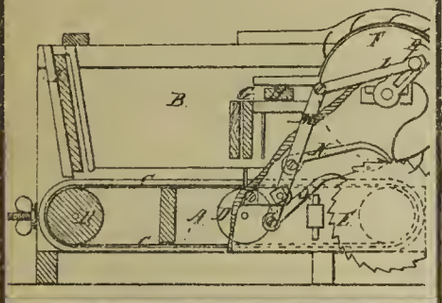
107,100, TITUS POWERS, LOCKS.



107,101, E. H. PURSELL, ELECTRO MAGNETIC RAILROAD ALARM

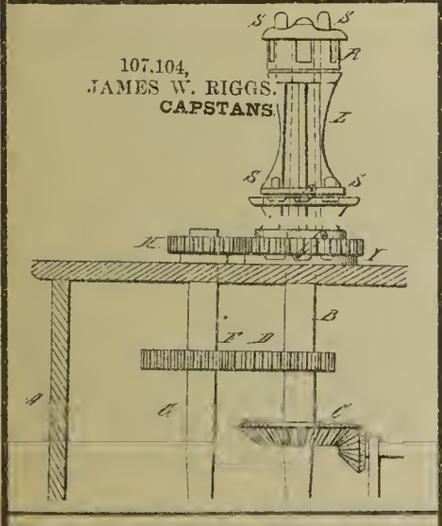


107,102, J. RALSTON, COTTON GIN FEEDER.

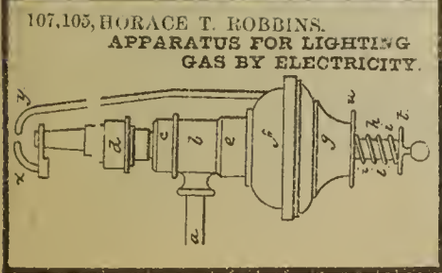


107,103, GEO. RICHARDSON, DRAIN-PIPES.

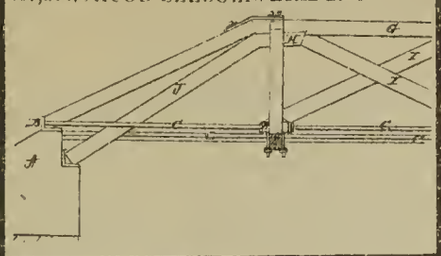
107,104, JAMES W. RIGGS, CAPSTANS.



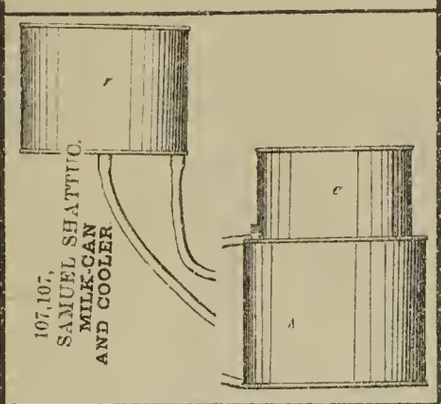
107,105, HORACE T. ROBBINS, APPARATUS FOR LIGHTING GAS BY ELECTRICITY.



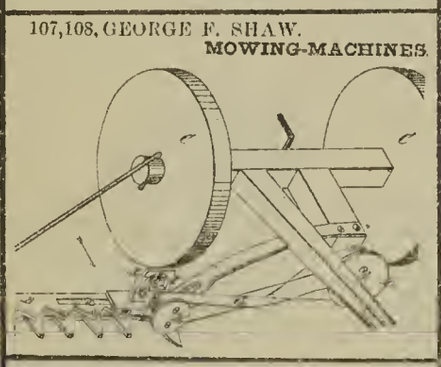
107,106, JACOB SEEBOLD, BRIDGES.



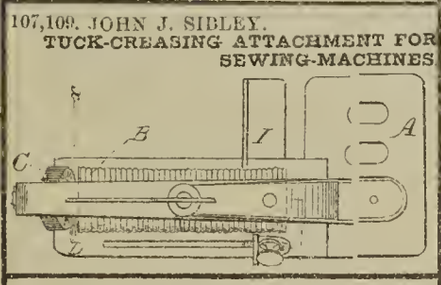
107,107, SAMUEL SHATTIC, MILK-CAN AND COOLER



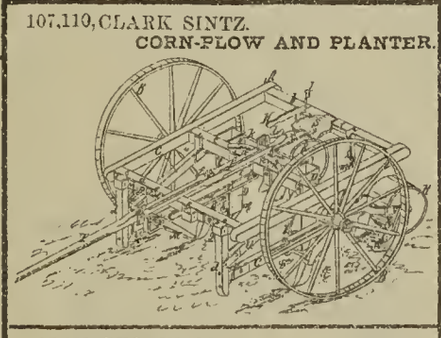
107,108, GEORGE F. SHAW, MOWING-MACHINES.



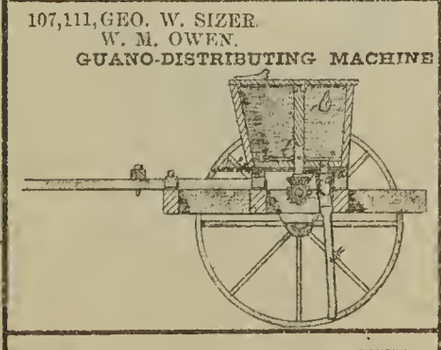
107,109, JOHN J. SIBLEY, TUCK-CREASING ATTACHMENT FOR SEWING-MACHINES.



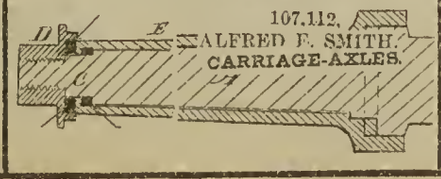
107,110, CLARK SINTZ, CORN-PLOW AND PLANTER.



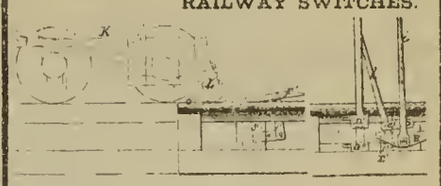
107,111, GEO. W. SIZER, W. M. OWEN, GUANO-DISTRIBUTING MACHINE



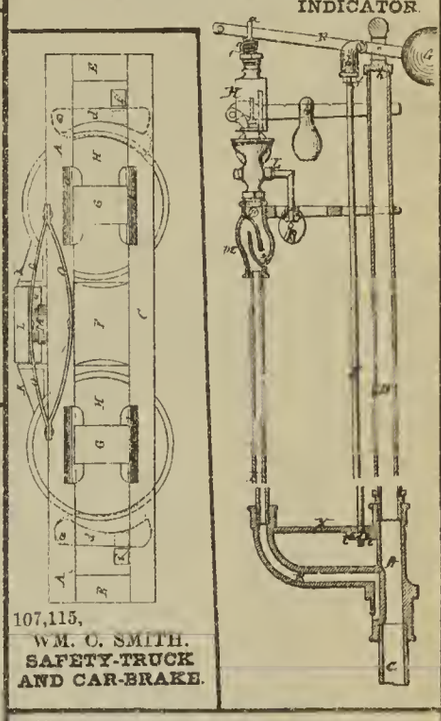
107,112, ALFRED F. SMITH, CARRIAGE-AXLES.



107,113, CHARLES S. SMITH, RAILWAY SWITCHES.

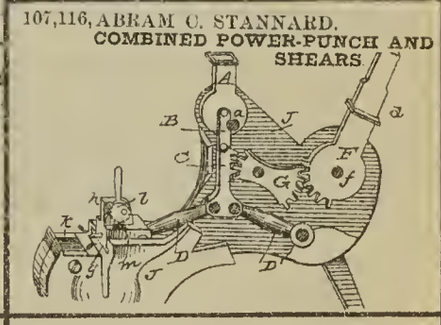


107,114, LEVI F. SMITH, LOW-WATER AND HIGH-STEAM INDICATOR.

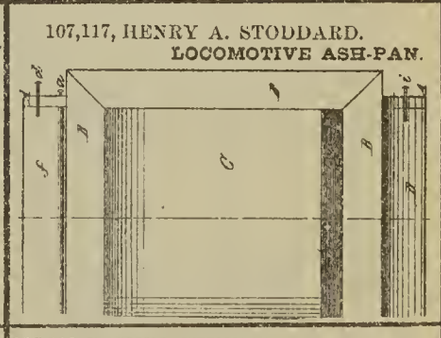


107,115, WM. C. SMITH, SAFETY-TRUCK AND CAR-BRAKE.

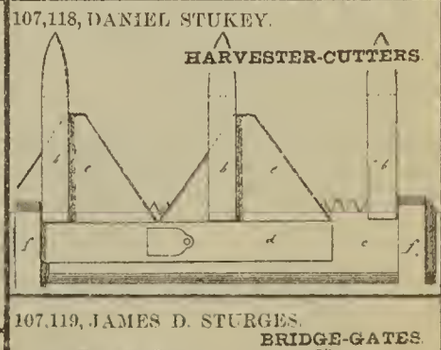
107,116, ABRAM C. STANNARD, COMBINED POWER-PUNCH AND SHEARS.



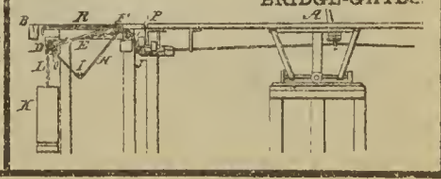
107,117, HENRY A. STODDARD, LOCOMOTIVE ASH-PAN.



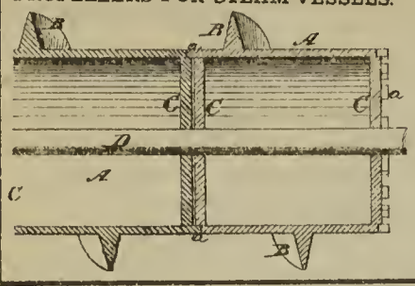
107,118, DANIEL STUKEY, HARVESTER-CUTTERS.

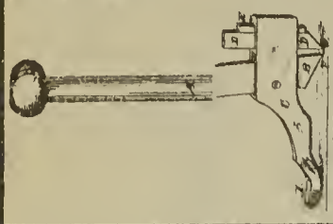


107,119, JAMES D. STURGES, BRIDGE-GATES.



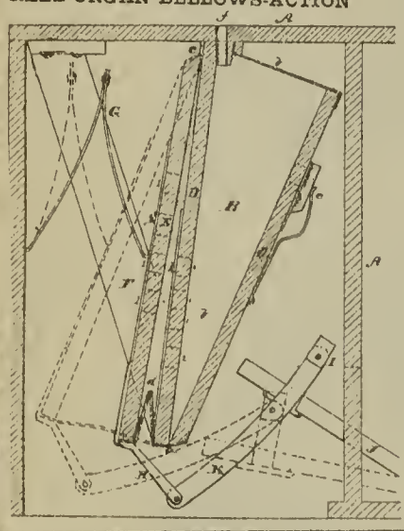
107,120, ROBERT SUTTON.
PROPELLERS FOR STEAM VESSELS.

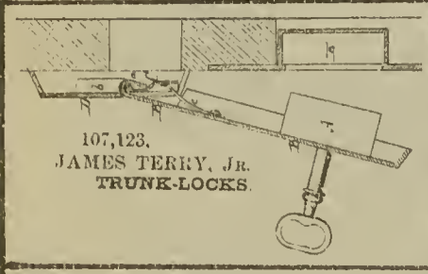




107,121. GEO. C. TAFT.
NAIL-EXTRACTOR.

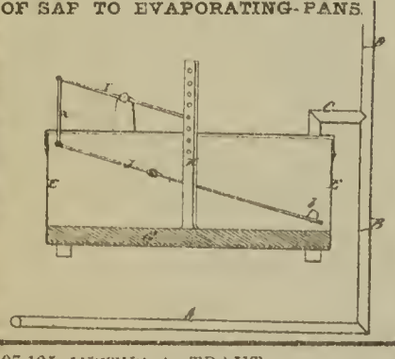
107,122, SIMEON TAYLOR.
REED-ORGAN BELLOWS-ACTION



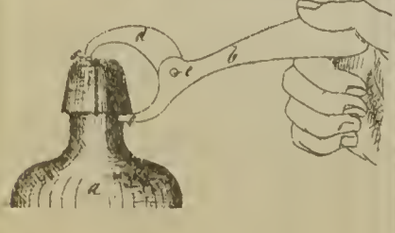


107,123.
JAMES TERRY, JR.
TRUNK-LOCKS.

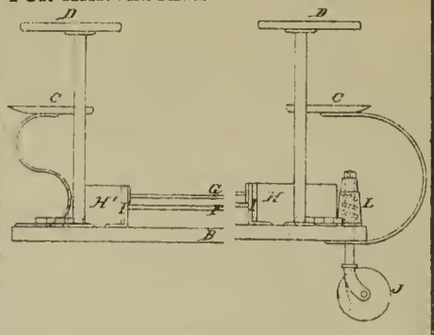
107,124, JOHN THOMAS.
DEVICE TO REGULATE THE FLOW OF SAP TO EVAPORATING-PANS.



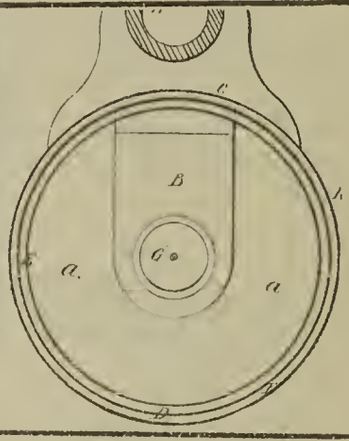
107,125, JUSTUS A. TRAUT.
DEVICE FOR CUTTING WIRE OR CORD FROM BOTTLE-STOPPERS.

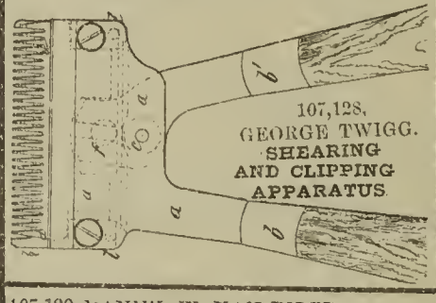


107,126. D. W. TRAVIS AND C. MCLINTON BINDING ATTACHMENT FOR HARVESTERS.



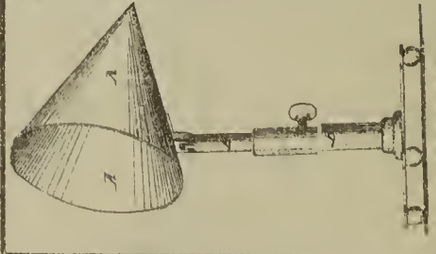
107,127. SAMUEL O. TRUDELL.
AUTOMATIC GAS-REGULATOR.

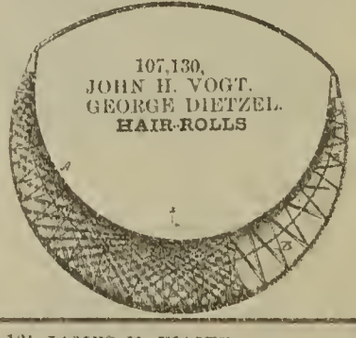




107,128,
GEORGE TWIGG.
SHEARING AND CLIPPING APPARATUS.

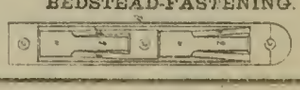
107,129, DANIEL W. VAN RIPER.
PHOTOGRAPHIC BACKGROUND.





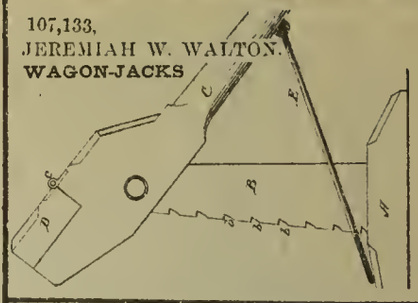
107,130,
JOHN H. VOGT.
GEORGE DIETZEL.
HAIR-ROLLS

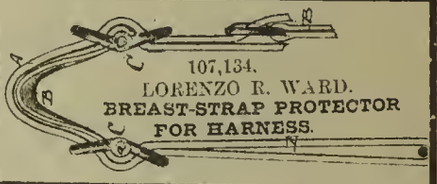
107,131, JAMES H. WAITE.
BEDSTEAD-FASTENING.



107,132. MARTIN F. WALTER.
CH. STAUDINGER.
HEEL-CALKS.

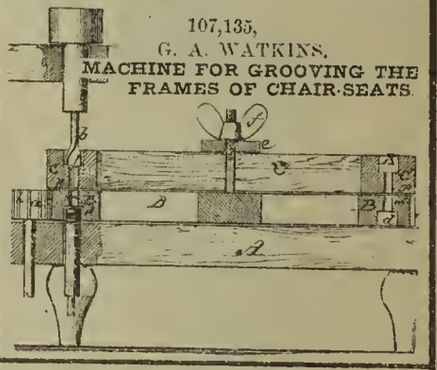
107,133,
JEREMIAH W. WALTON.
WAGON-JACKS

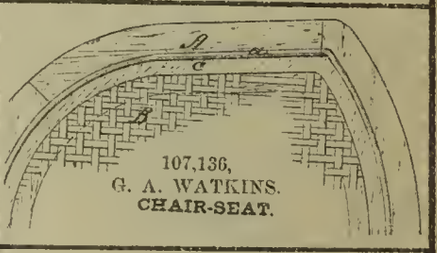




107,134.
LORENZO R. WARD.
BREAST-STRAP PROTECTOR FOR HARNESS.

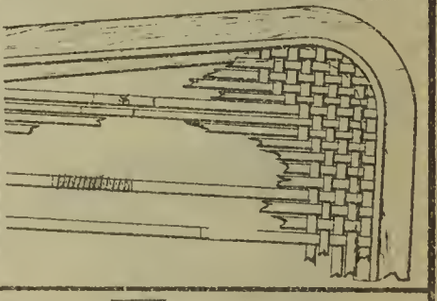
107,135,
G. A. WATKINS.
MACHINE FOR GROOVING THE FRAMES OF CHAIR-SEATS.

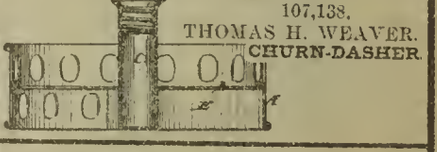




107,136,
G. A. WATKINS.
CHAIR-SEAT.

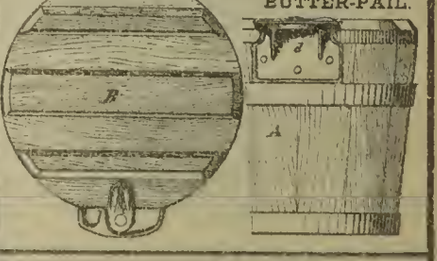
107,137, G. A. WATKINS. CHAIR-SEATS.



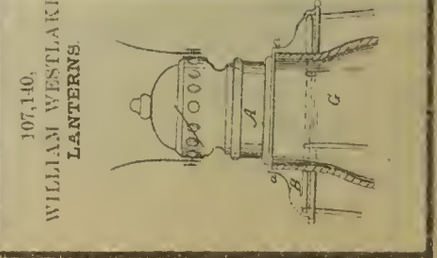


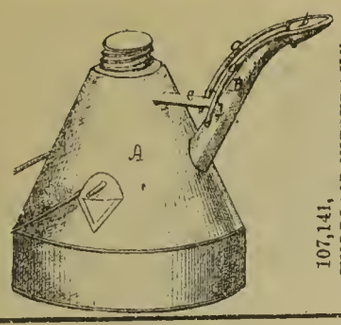
107,138.
THOMAS H. WEAVER.
CHURN-DASHER.

107,139, HENRY P. WESTCOTT.
BUTTER-PAIL.



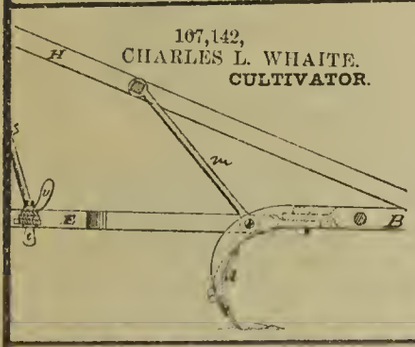
107,140,
WILLIAM WESTLAKE.
LANTERNS.





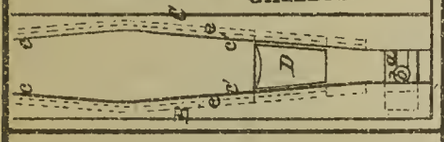
107,141, WILLIAM WESTLAKE. OIL-CANS

107,142, CHARLES L. WHAITE. CULTIVATOR.

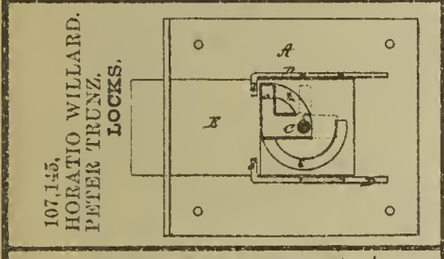


107,143, L. H. WHITNEY. SCREW FOR SOLES AND HEELS OF SHOES.

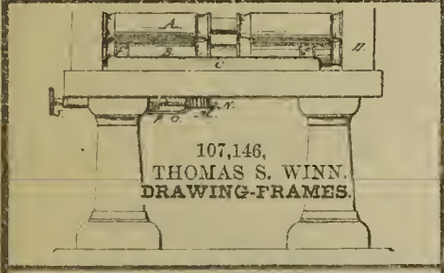
107,144, FREDERICK M. WILDMAN. GALLEYS.



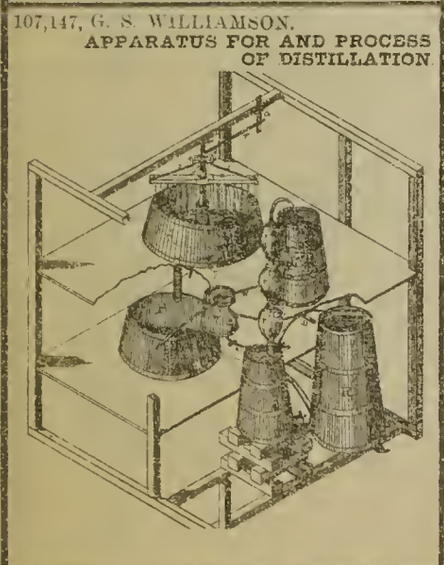
107,145, HORATIO WILLARD. PETER TRUNZ. LOCKS.



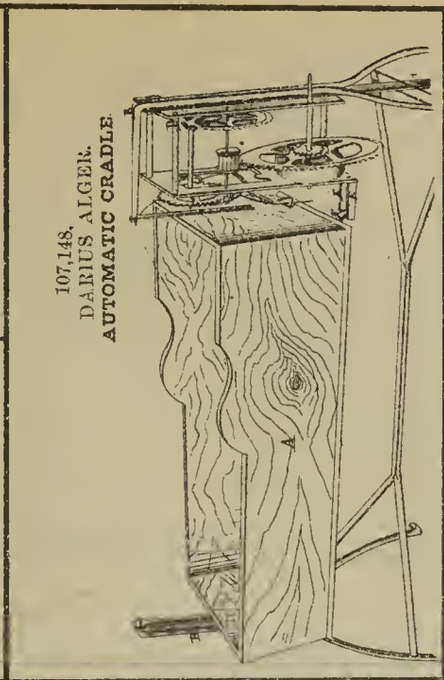
107,146, THOMAS S. WINN. DRAWING-FRAMES.



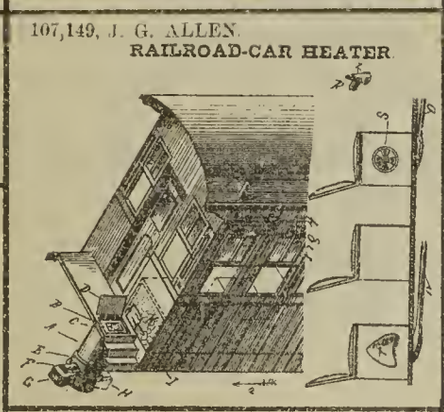
107,147, G. S. WILLIAMSON. APPARATUS FOR AND PROCESS OF DISTILLATION.



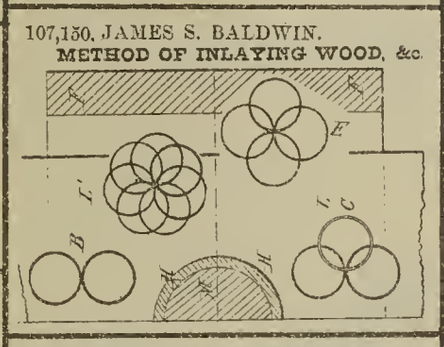
107,148, DARIUS ALGER. AUTOMATIC CRADLE.



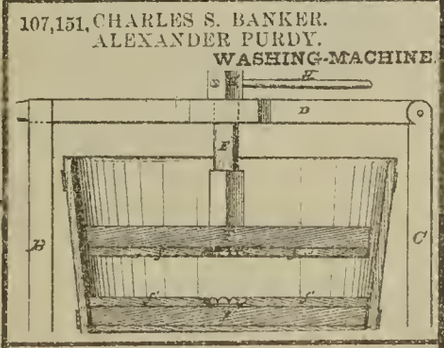
107,149, J. G. ALLEN. RAILROAD-CAR HEATER.



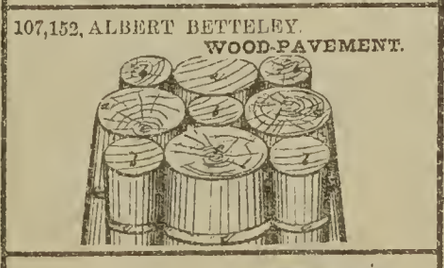
107,150, JAMES S. BALDWIN. METHOD OF INLAYING WOOD, &c.



107,151, CHARLES S. BANKER. ALEXANDER PURDY. WASHING-MACHINE.



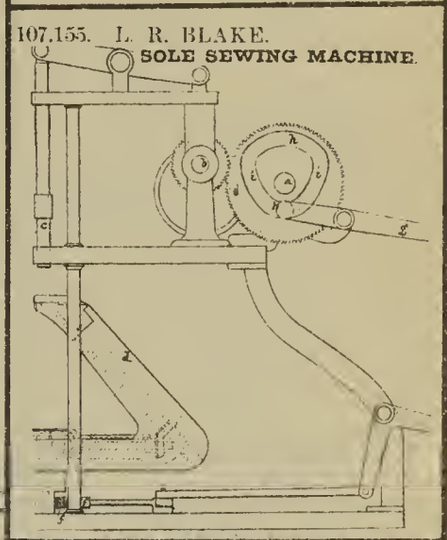
107,152, ALBERT BETTELEY. WOOD-PAVEMENT.



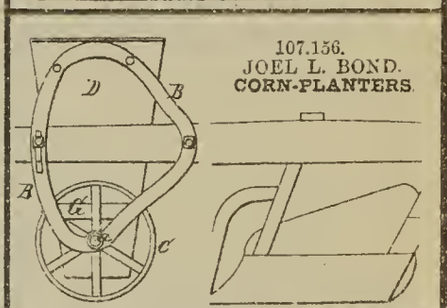
107,153, DANIEL M. BISSELL. JEWELERS' TOOLS.

107,154, B. B. BLACKWELL. SHOOTING-STICKS FOR PRINTERS.

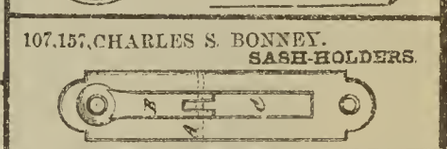
107,155, L. R. BLAKE. SOLE SEWING MACHINE.



107,156, JOEL L. BOND. CORN-PLANTERS.

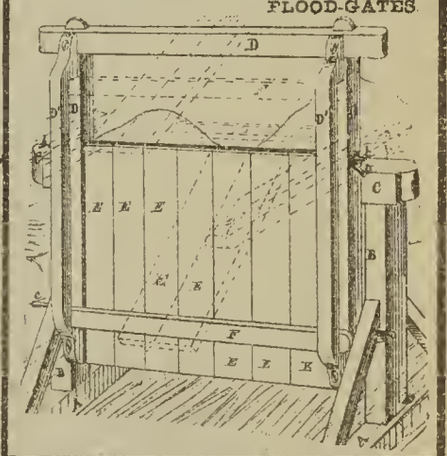


107,157, CHARLES S. BONNEY. SASH-HOLDERS.

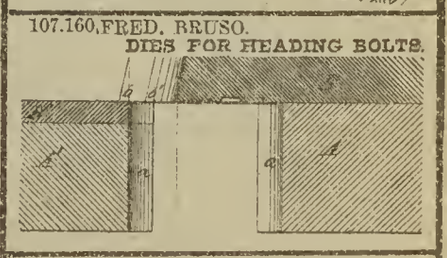


107,158, GUST. BOURGADE. THE MANUFACTURE OF ALBUMEN.

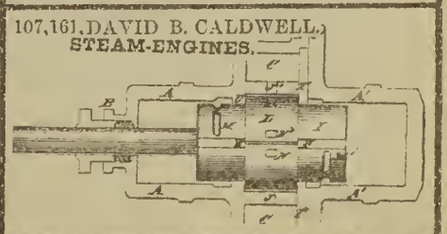
107,159, THOMAS H. BREED. FLOOD-GATES.



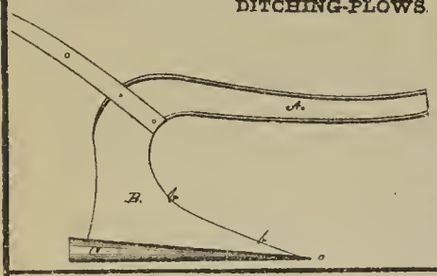
107,160, FRED. BRUSO. DIES FOR HEADING BOLTS.



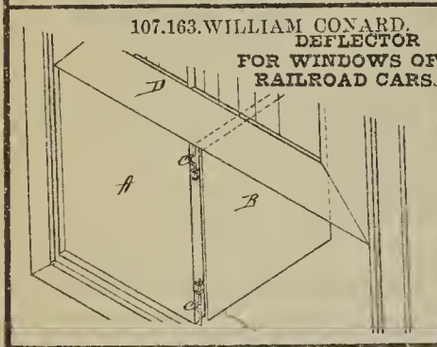
107,161, DAVID B. CALDWELL. STEAM-ENGINES.



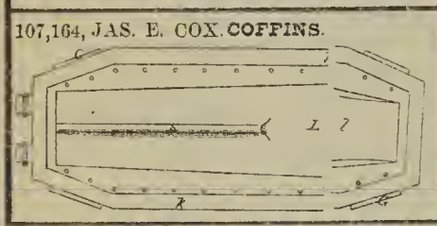
107,162, GEORGE CHAMBERLIN.
DITCHING-PLOWS.



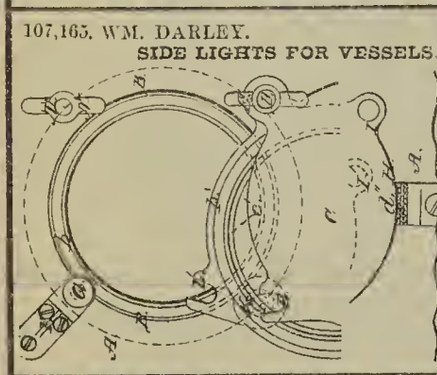
107,163. WILLIAM CONARD.
DEFLECTOR FOR WINDOWS OF RAILROAD CARS.



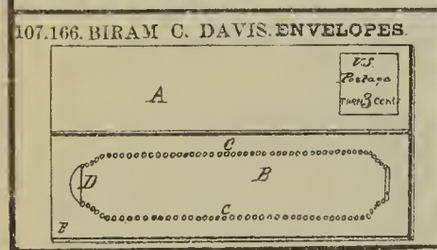
107,164, JAS. E. COX. COFFINS.



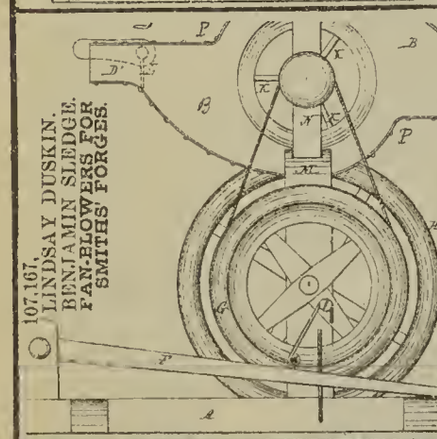
107,165. WM. DARLEY.
SIDE LIGHTS FOR VESSELS.



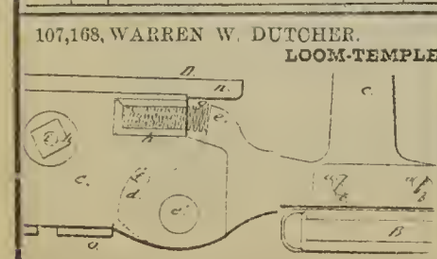
107,166. BIRAM C. DAVIS. ENVELOPES.



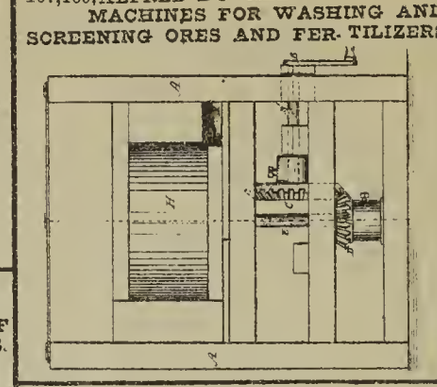
107,167, LINDSAY DUSKIN. BENJAMIN SLEDGE. FAN-BLOWERS FOR SMITHS' FORGES.



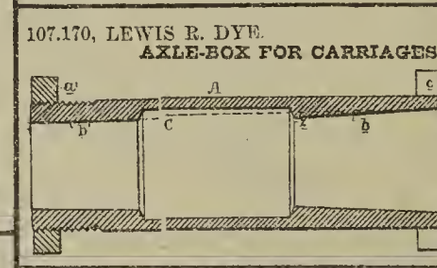
107,168, WARREN W. DUTCHER.
LOOM-TEMPLE.



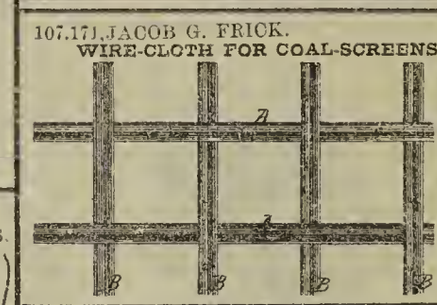
107,169, ALFRED DUVALL.
MACHINES FOR WASHING AND SCREENING ORES AND FER-TILIZERS.



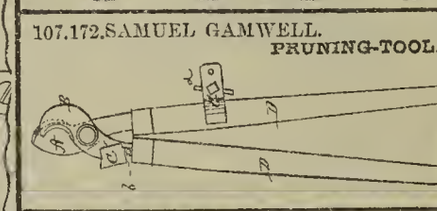
107,170, LEWIS R. DYE.
AXLE-BOX FOR CARRIAGES.



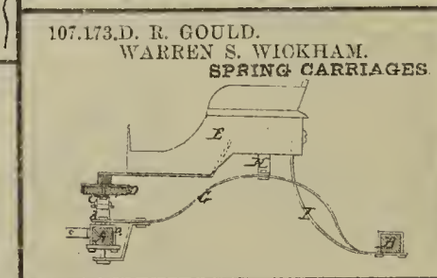
107,171, JACOB G. FRICK.
WIRE-CLOTH FOR COAL-SCREENS.



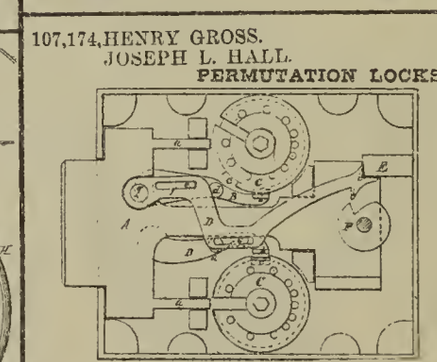
107,172. SAMUEL GAMWELL.
PRUNING-TOOL.



107,173. D. R. GOULD.
WARREN S. WICKHAM.
SPRING CARRIAGES.

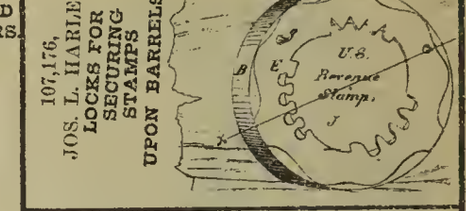


107,174, HENRY GROSS.
JOSEPH L. HALL.
PERMUTATION LOCKS.



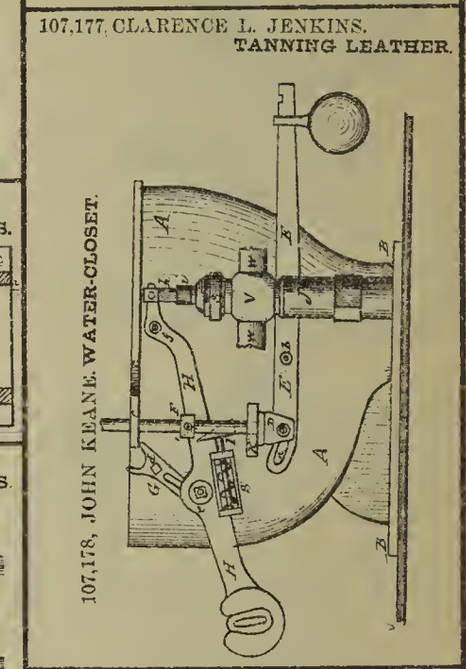
107,175. NELSON HANCHETT.
WHIP-HOLDER.

107,176, JOS. L. HARLEY.
LOCKS FOR SECURING STAMPS UPON BARRELS.

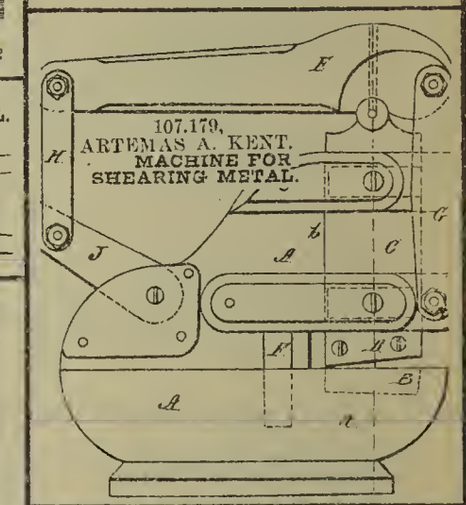


107,177. CLARENCE L. JENKINS.
TANNING LEATHER.

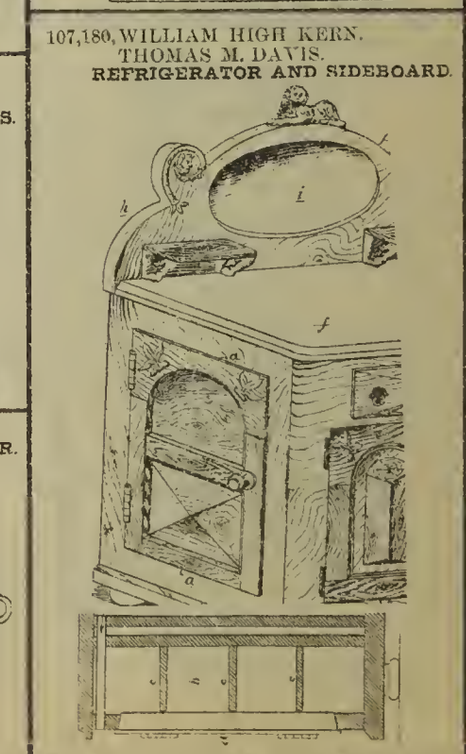
107,178, JOHN KEANE. WATER-CLOSET.



107,179, ARTEMAS A. KENT.
MACHINE FOR SHEARING METAL.



107,180, WILLIAM HIGH KERN.
THOMAS M. DAVIS.
REFRIGERATOR AND SIDEBOARD.



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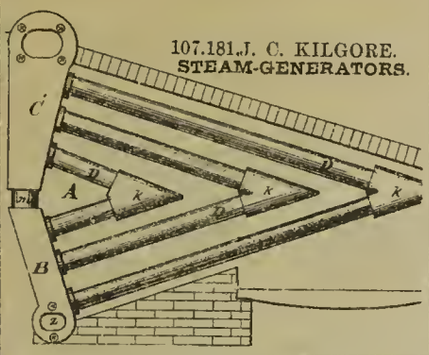
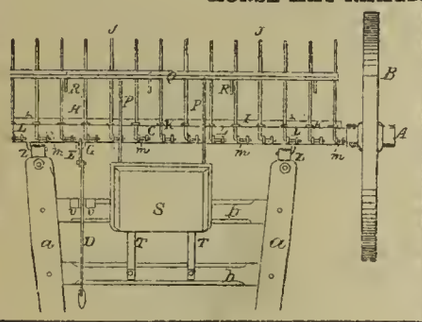
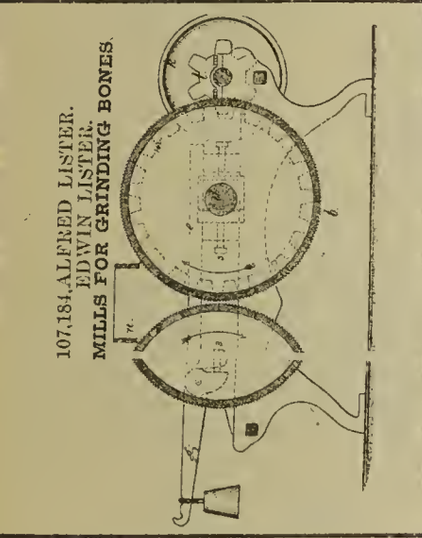


107,182, GEO. W. KING. BALANCES.

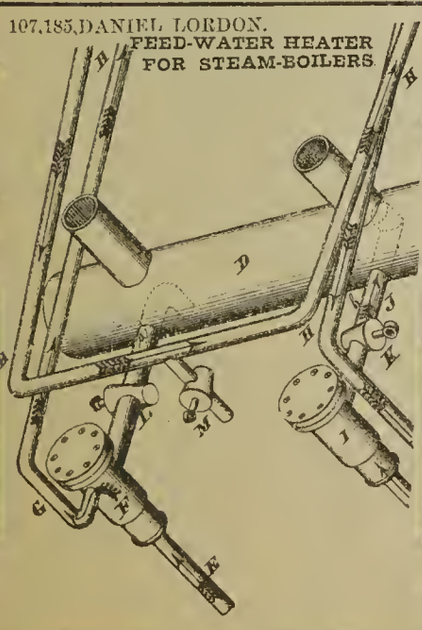
107,183, G. O. LACKEY. HORSE HAY-RAKES.



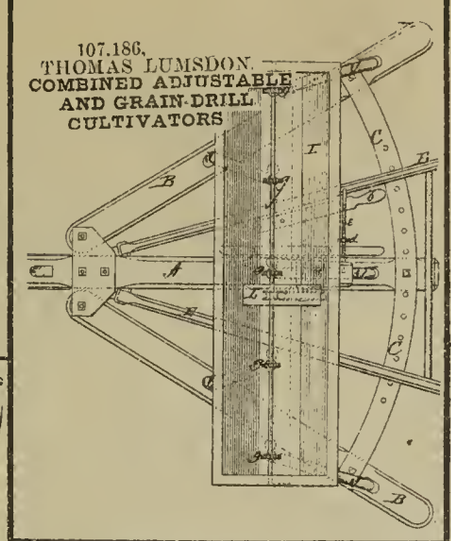
107,184, ALFRED LISTER. EDWIN LISTER. MILLS FOR GRINDING BONES.



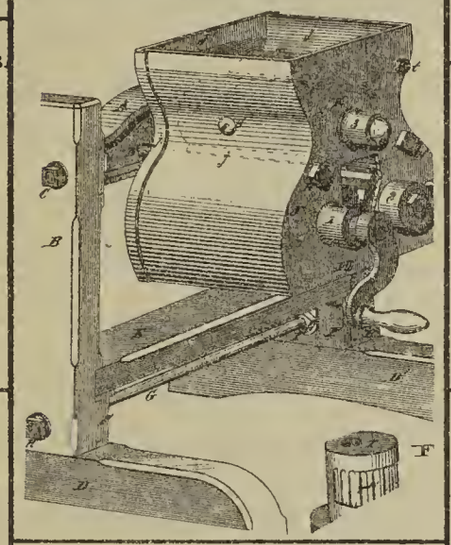
107,185, DANIEL LORDON. FEED-WATER HEATER FOR STEAM-BOILERS.



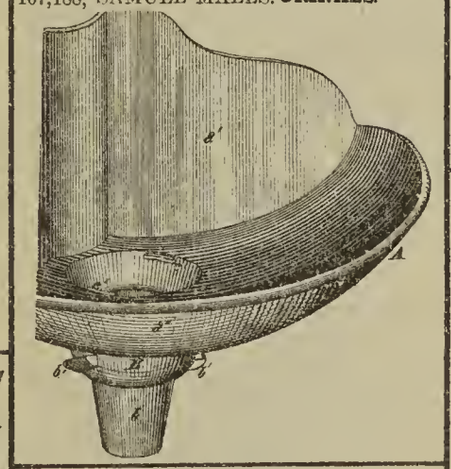
107,186, THOMAS LUMSDON. COMBINED ADJUSTABLE AND GRAIN-DRILL CULTIVATORS.



107,187, SAMUEL MALES. IMPROVEMENT IN CIDER-MILLS.

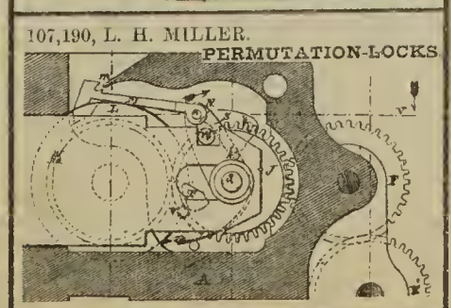


107,188, SAMUEL MALES. URINALS.



107,189, JULES MATHIEU. CASE FOR BOTTLES AND GLASSES.

107,190, L. H. MILLER. PERMUTATION-LOCKS.



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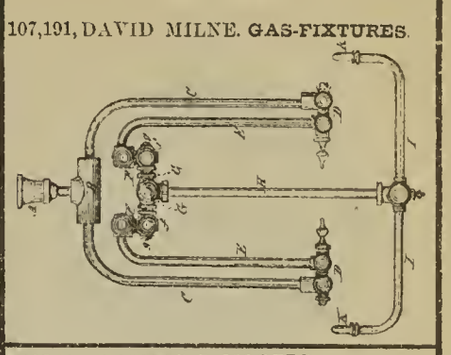
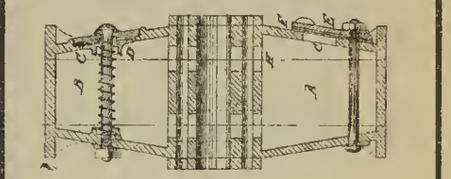
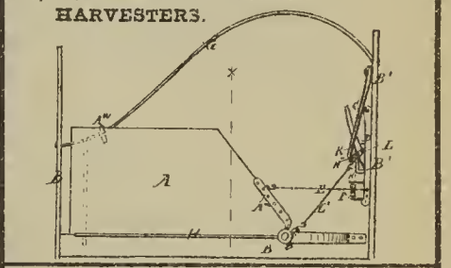


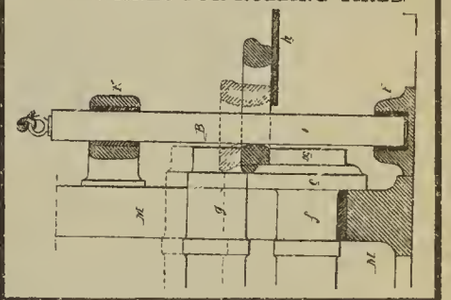
107,192, THOMAS J. MOOERS. LUBRICATORS.



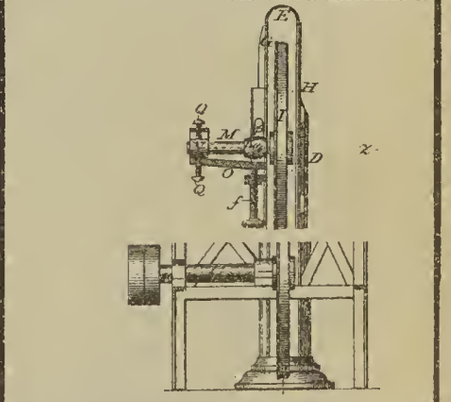
107,193, HALVOR H. NESTESTU. HARVESTERS.



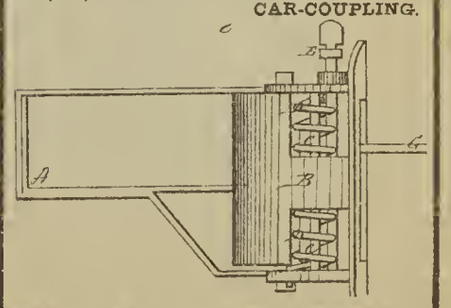
107,194, HIPPOLYTE ULYSSE PETIN. MACHINES FOR ROLLING TIRES.



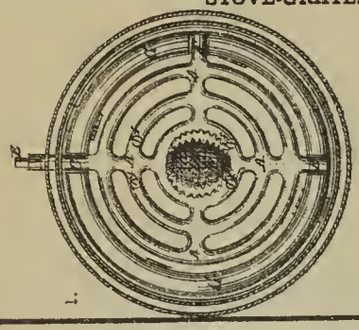
107,195, JOHN T. PLASS. SAWING-MACHINE.



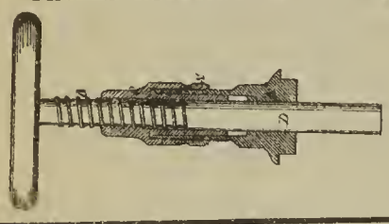
107,196, ANDREW J. PRESCOTT. CAR-COUPLING.



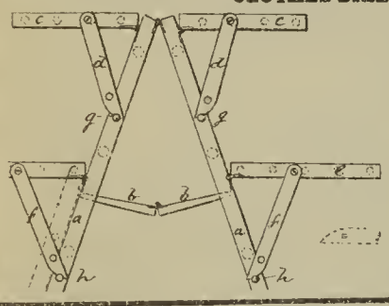
107,197, WILLIAM QUAY.
EZRA M. HINSDALE.
STOVE-GRATE.



107,198, EZRA RANSOM.
PACKED ROTATING VALVE-STEM.



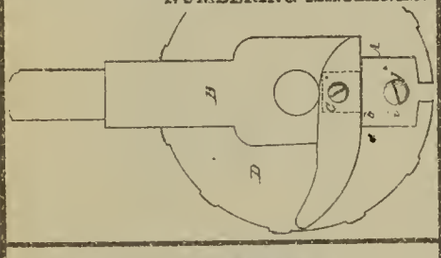
107,199, GEORGE W. RICHARDSON.
CLOTHES-DRIER.



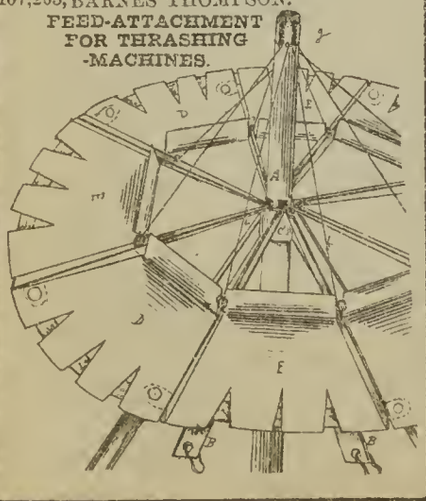
107,200, GEORGE L. SHUTTLEWORTH.
PAINT-BRUSH.

107,201, H. JULIUS SMITH.
TORPEDOES FOR OIL-WELLS.

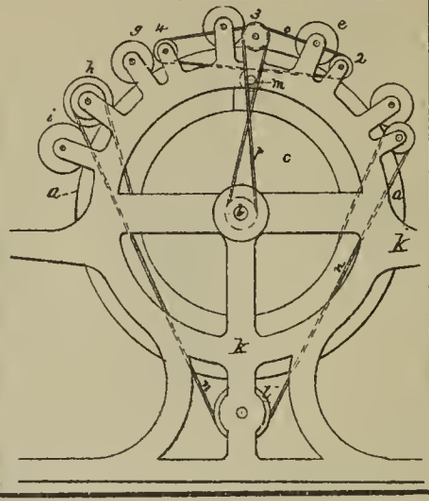
107,202, JAMES D. SMITH.
NUMBERING-MACHINES.



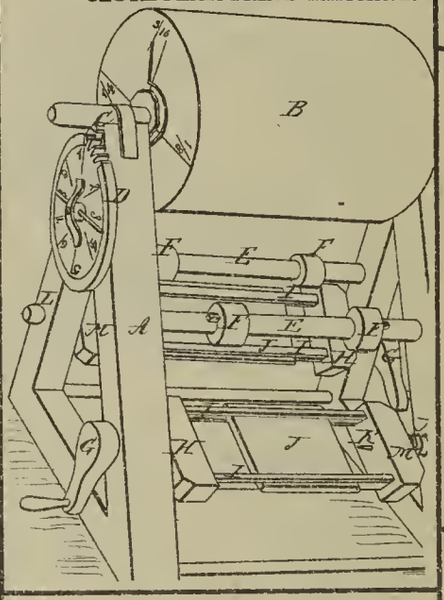
107,203, BARNES THOMPSON.
FEED-ATTACHMENT FOR THRASHING-MACHINES.



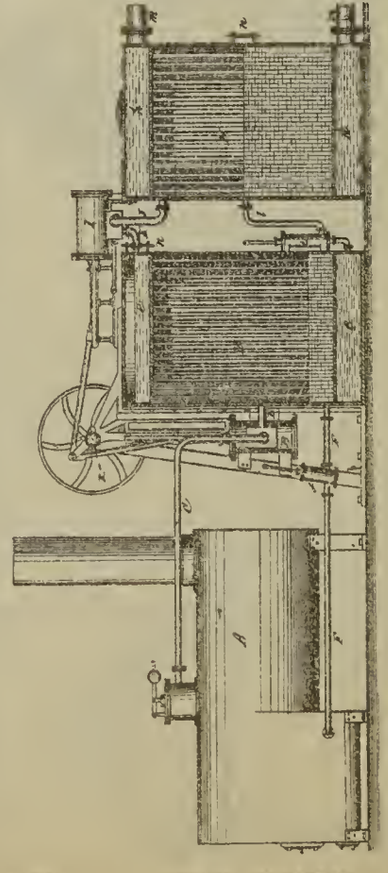
107,204, GEORGE THRESH.
CARDING-MACHINES.



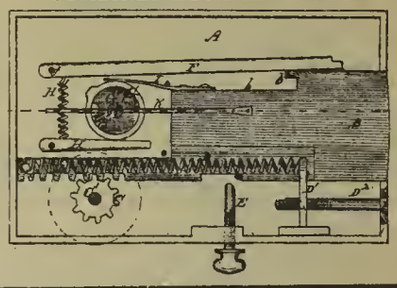
107,205, THOMAS WEEDEN.
THOMAS TRIBE.
CLOTH-MEASURING MACHINE.



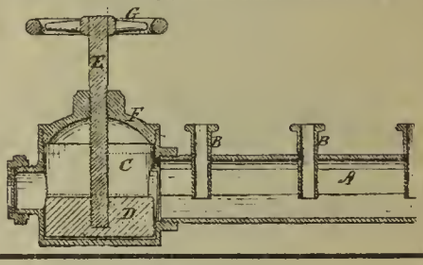
107,206, F. A. MORLEY
STEAM AND VAPOR-ENGINES



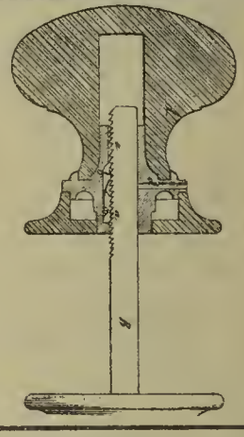
107,207, SAMUEL C. WEDDINGTON.
COMBINED LOCK AND LATCH



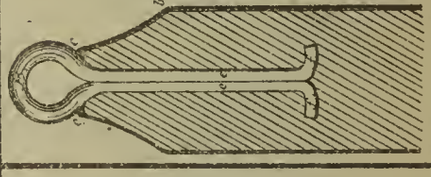
107,208, HENRY G. LUDLOW.
APPARATUS FOR THE MANUFACTURE OF ILLUMINATING-GAS.



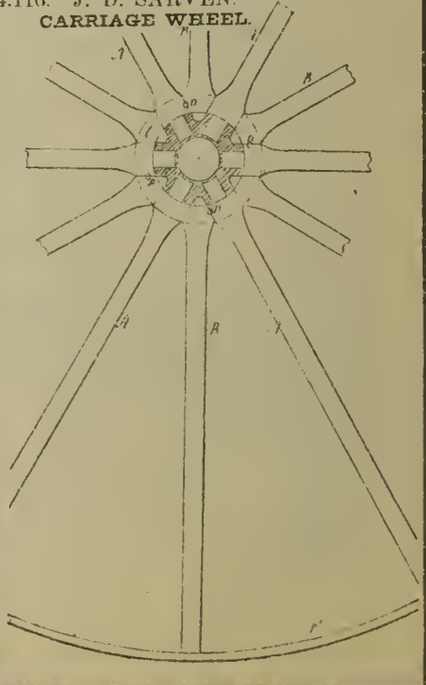
4,114, MATTW. ANDREW.
ATTACHING KNOBS TO SPINDLES.



4,115, DANIEL B. LACY.
THOMAS T. LACY.
ISAAC A. LACY.
T. T. LACY:
WEIGHTS FOR SASHES, CLOCKS, &c.



4,116. J. D. SARVEN.
CARRIAGE WHEEL.



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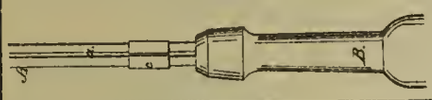
107,209. H. B. ADAMS. **TAPER HOLDER.**



107,210, FRANKLIN BABCOCK.
FREDERICK BABCOCK.
BLIND-FASTENERS.

107,211, JAMES T. BAGGS.
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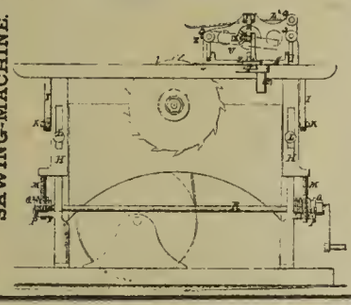
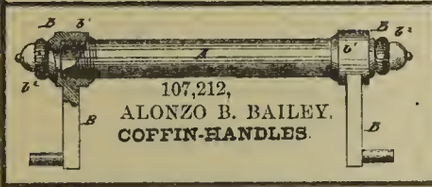
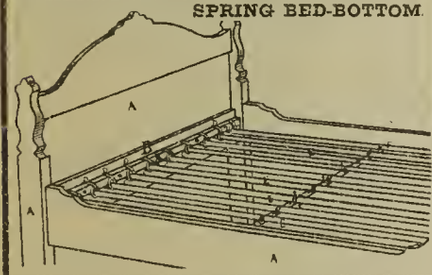


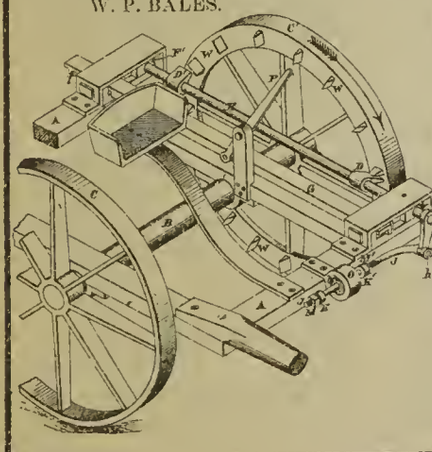


107,212,
ALONZO B. BAILEY.
COFFIN-HANDLES.

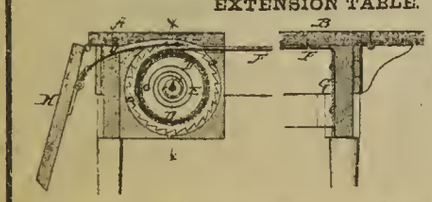
107,213.
HENRY DWIGHT WRIGHT BAILEY.
SPRING BED-BOTTOM.



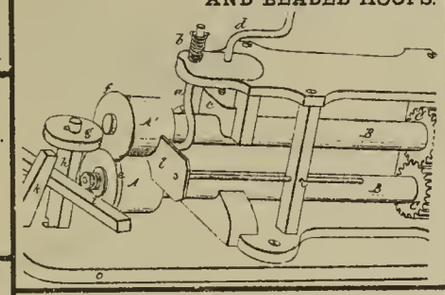
107,214, MOSES BALES. **HARVESTERS.**
W. P. BALES.



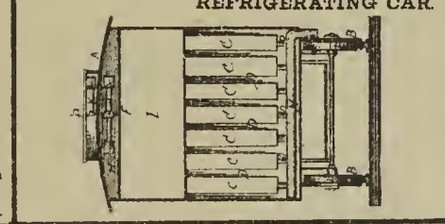
107,215, MELVIN BANCROFT.
EXTENSION TABLE.



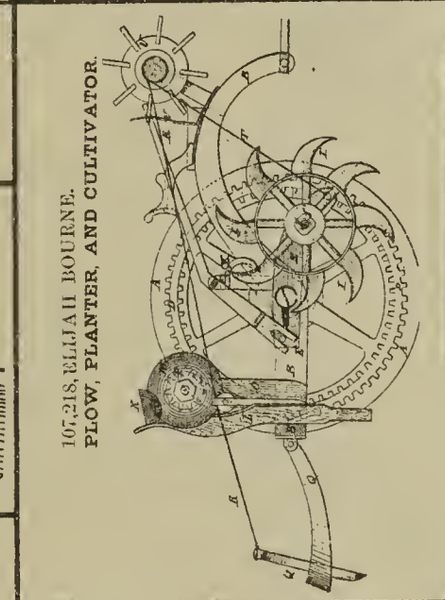
107,216, J. BLOOD.
MACHINES FOR MAKING FLANGED AND BEADED HOOPS.



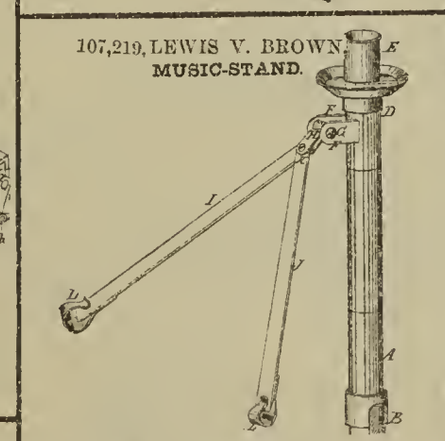
107,217, A. BOOTH.
REFRIGERATING CAR.



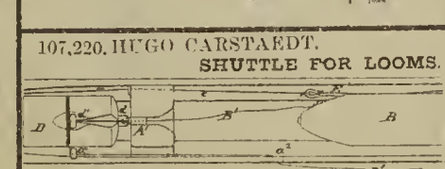
107,218, ELIJAH BOURNE.
PLOW, PLANTER, AND CULTIVATOR.



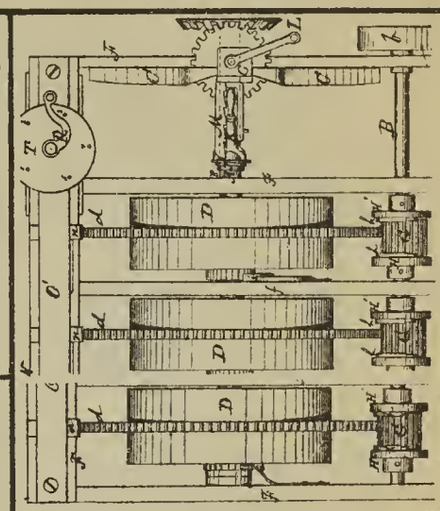
107,219, LEWIS V. BROWN.
MUSIC-STAND.



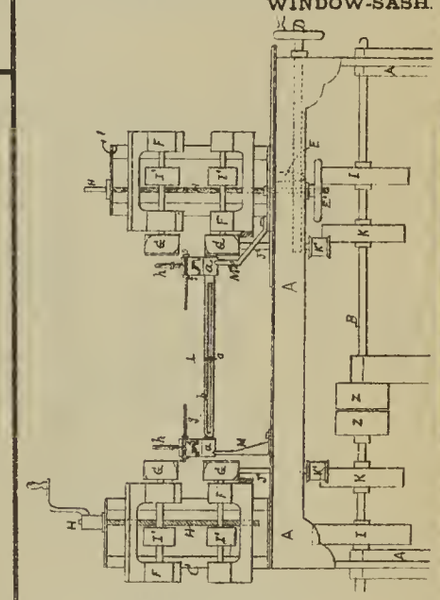
107,220. HUGO CARSTAEDT.
SHUTTLE FOR LOOMS.



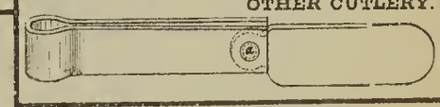
107,221. JOHN M. CAYCE.
MOTIVE-POWER.



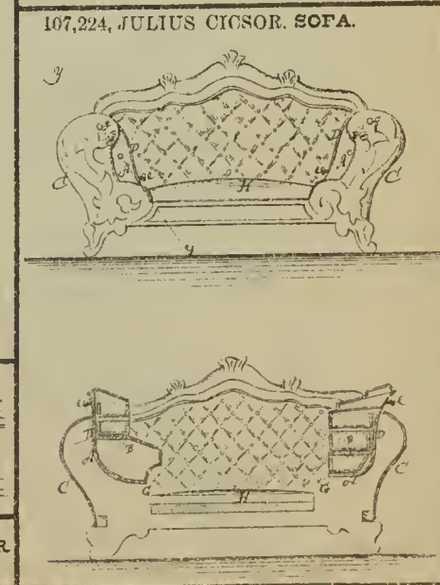
107,222, FRANK G. CHAPMAN.
MACHINES FOR TENONING WINDOW-SASH.



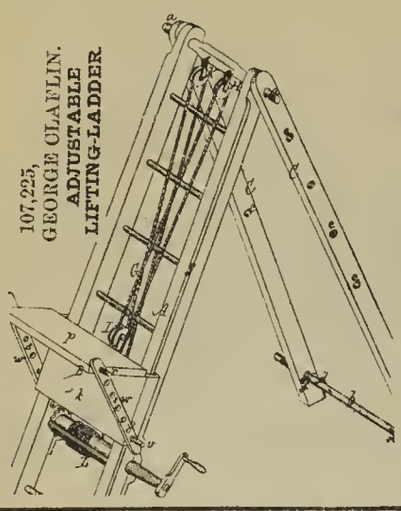
107,223, MATTHEW CHAPMAN.
HANDLES FOR TABLE AND OTHER CUTLERY.



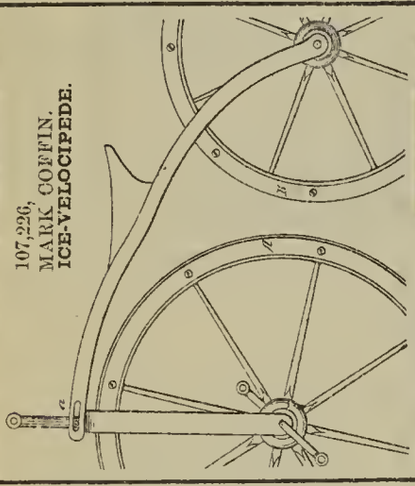
107,224, JULIUS CICSOR. **SOFA.**



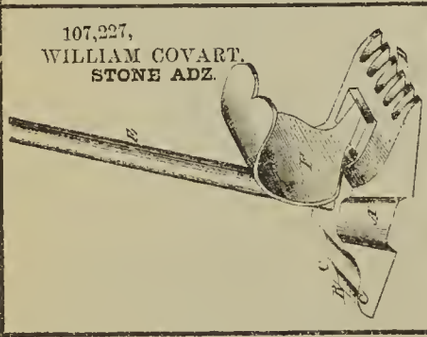
107,225, GEORGE CLAFLIN. ADJUSTABLE LIFTING-LADDER.



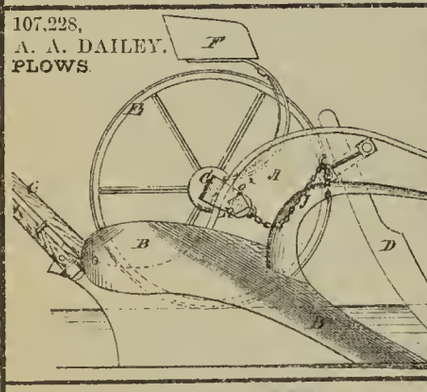
107,226, MARK COFFIN. ICE-VELOCIPEDE.



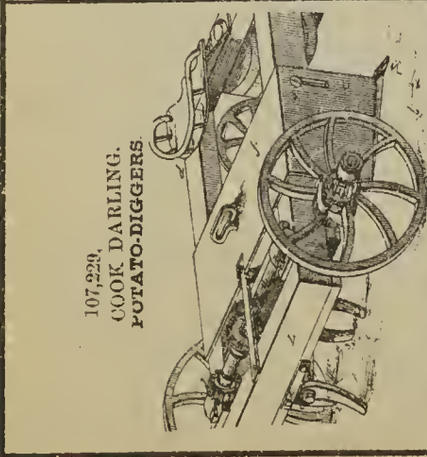
107,227, WILLIAM COVART. STONE ADZ.



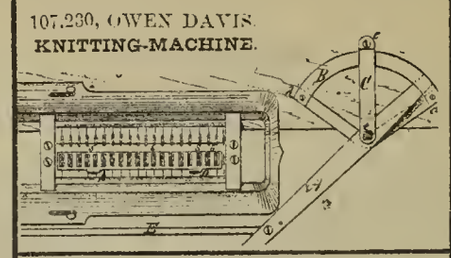
107,228, A. A. DAILEY. PLOWS.



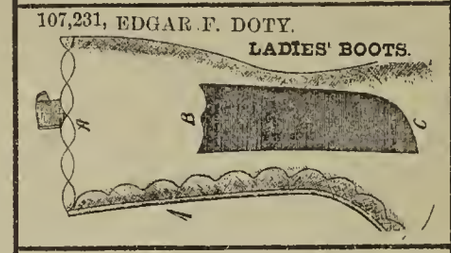
107,229, COOK DARLING. POTATO-DIGGERS.



107,230, OWEN DAVIS. KNITTING-MACHINE.

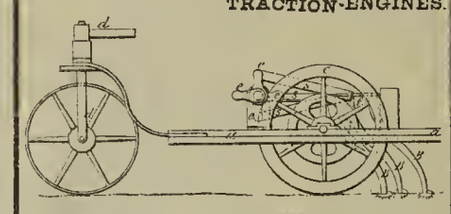


107,231, EDGAR F. DOTY. LADIES' BOOTS.

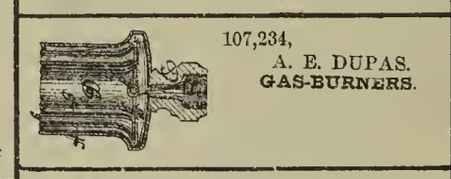


107,232, JOSEPH V. DOUGLAS. ROOFING-COMPOUND.

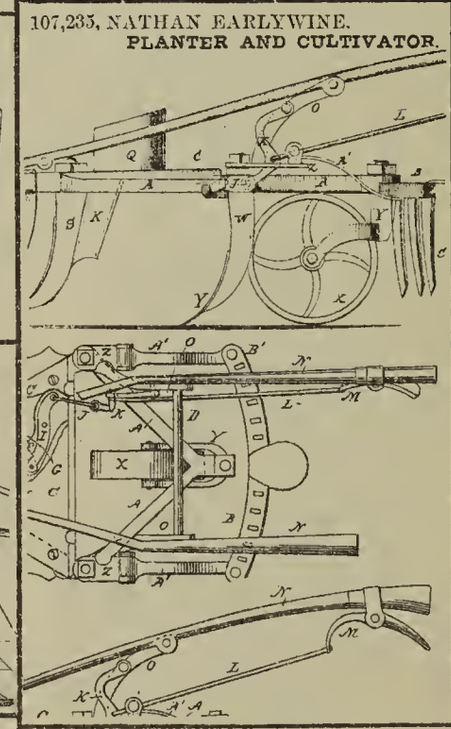
107,233, WILLIAM C. DOUTHETT. TRACTION-ENGINES.



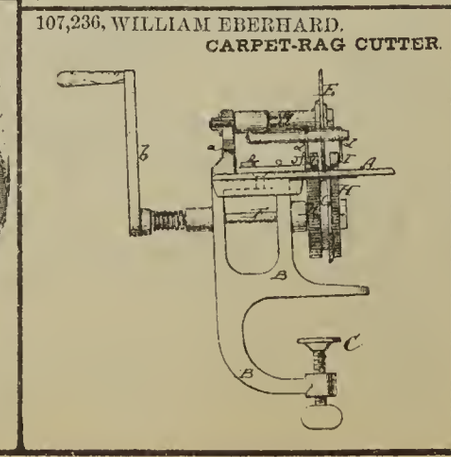
107,234, A. E. DUPAS. GAS-BURNERS.

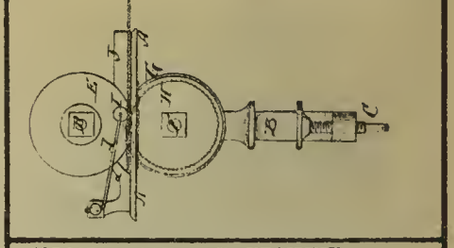


107,235, NATHAN EARLYWINE. PLANTER AND CULTIVATOR.

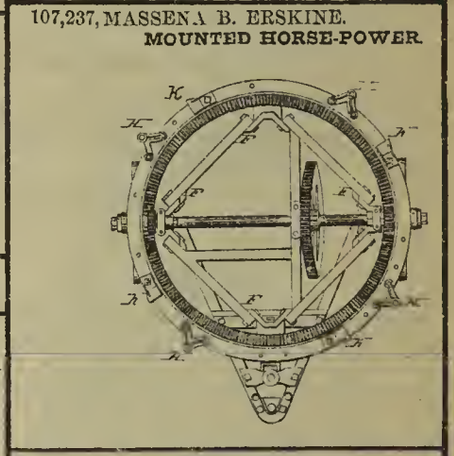


107,236, WILLIAM EBERHARD. CARPET-RAG CUTTER.

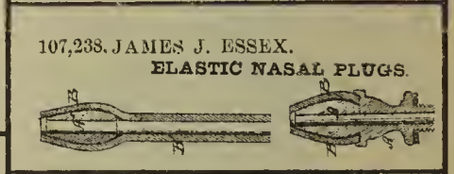




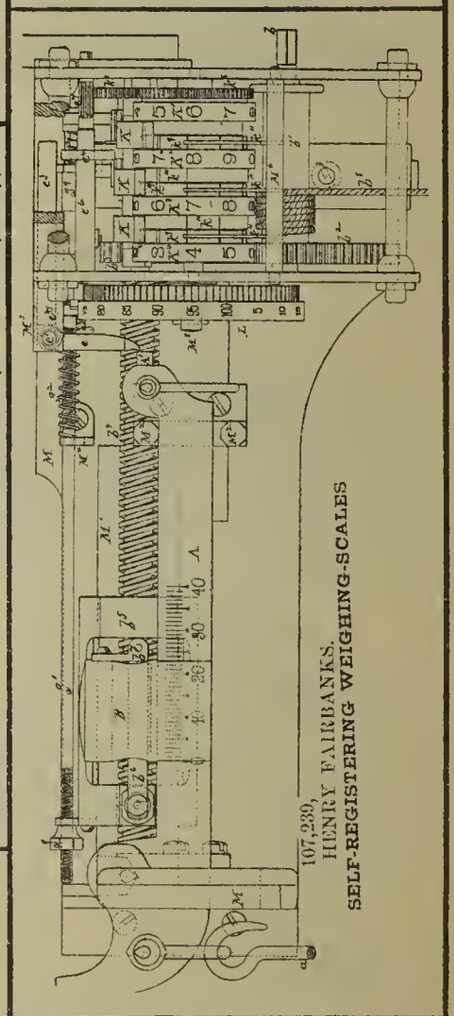
107,237, MASSENA B. ERSKINE. MOUNTED HORSE-POWER.



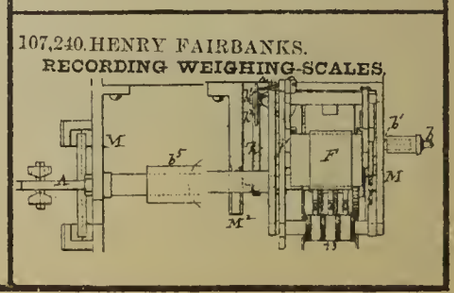
107,238, JAMES J. ESSEX. ELASTIC NASAL PLUGS.



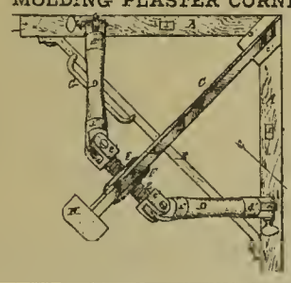
107,239, HENRY FAIRBANKS. SELF-REGISTERING WEIGHING-SCALES.



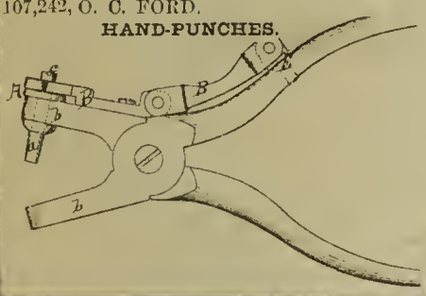
107,240, HENRY FAIRBANKS. RECORDING WEIGHING-SCALES.



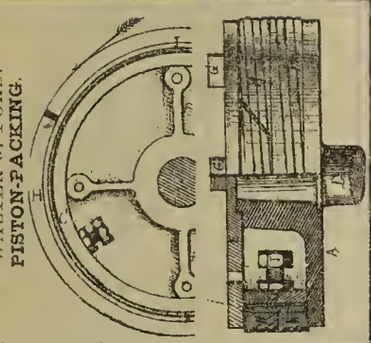
107,241, SMITH FERRIS. DEVICES FOR MOLDING PLASTER CORNICES.



107,242, O. C. FORD. HAND-PUNCHES.

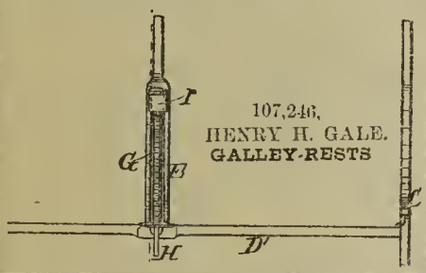


107,243, WALTER J. FORD. PISTON-PACKING.



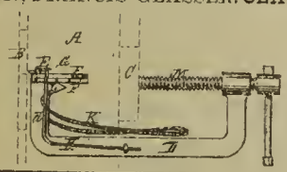
107,244, GEORGE WAKEFIELD FOX. MANNER OF TREATING COD-LIVER AND CASTOR-OILS.

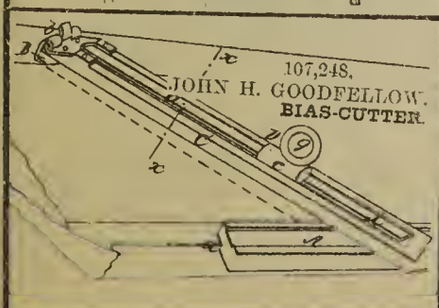
107,245, ISAAC H. FROST. BRACKET-SHELF.



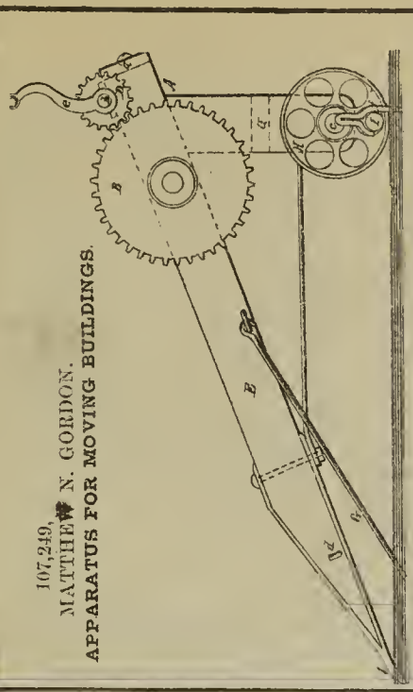
107,246, HENRY H. GALE. GALLEY-RESTS

107,247, FRANCIS GLASSER. CLAMP.



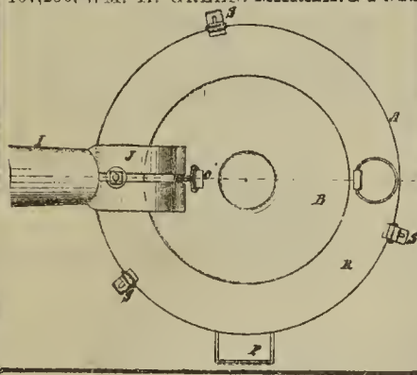


107,248, JOHN H. GOODFELLOW. BIAS-CUTTER.

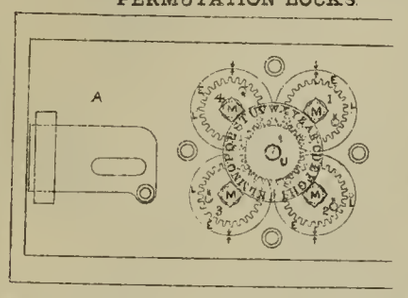


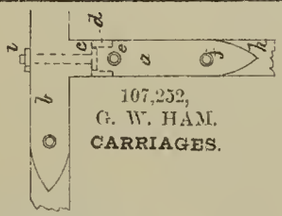
107,249, MATTHEW N. GORDON. APPARATUS FOR MOVING BUILDINGS.

107,250, WM. H. GREEN. MARKING-POTS.



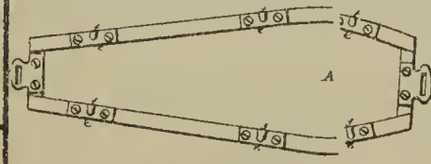
107,251, MARTIAL HAINQUE. PERMUTATION LOCKS.

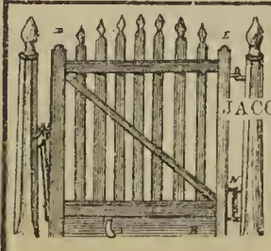




107,252, G. W. HAM. CARRIAGES.

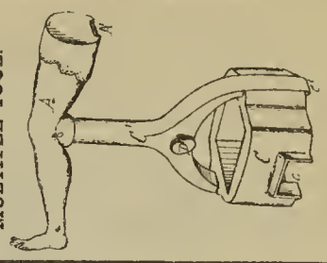
107,253, WILLIAM HAMILTON. LID-FASTENINGS FOR BURIAL-CASKETS.

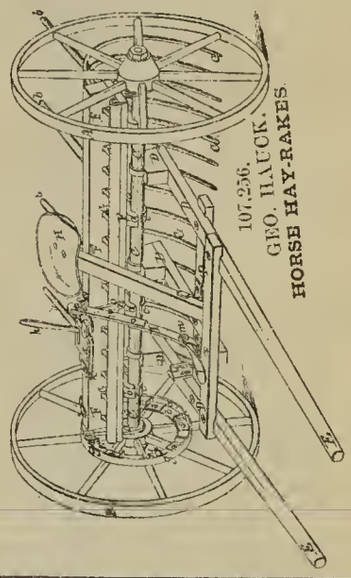




107,254, JACOB H. HARNLY. GATES.

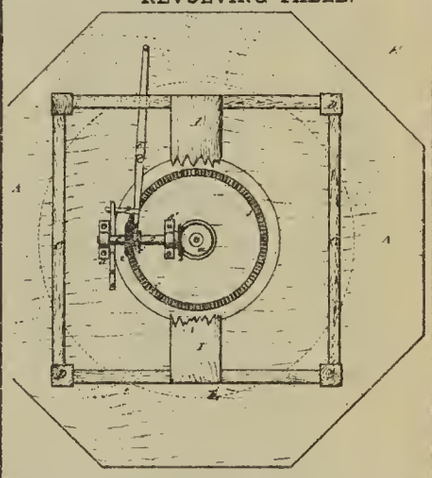
107,255, HENRY J. HARRIS. MULTIPLE TOOL.



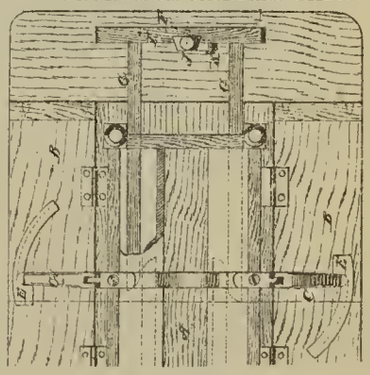


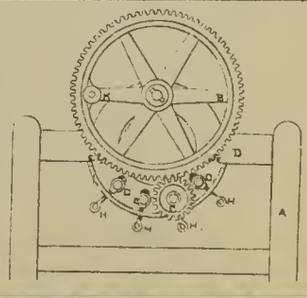
107,256, GEO. HAUCK. HORSE HAY-RAKES.

107,257, WILLIAM H. HENDERSON. WALTER S. JONES. REVOLVING TABLE.



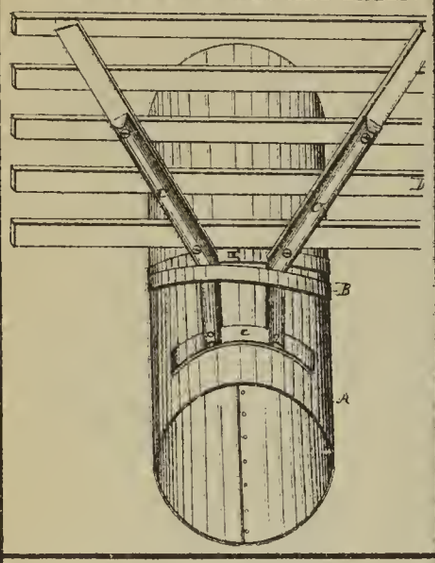
107,258, GEORGE H. HENKEL. TABLE.



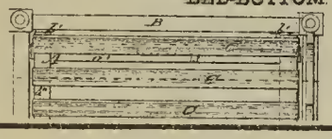


107,259, JOEL HOOD. HUSKING CORN. MACHINE FOR.

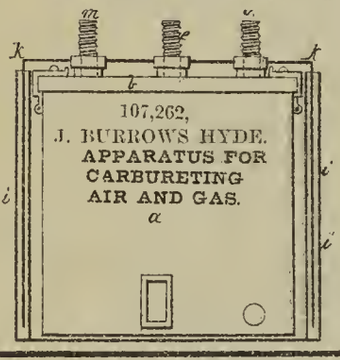
107,260, REUBEN HOOVER.
STOVE-PIPE BAND AND SHELF.



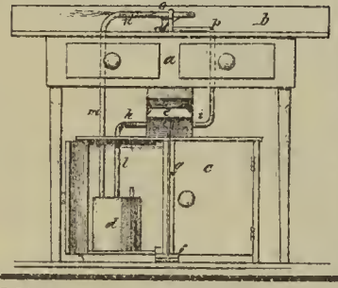
107,261, DARLINGTON HOSKINS.
BED-BOTTOM.



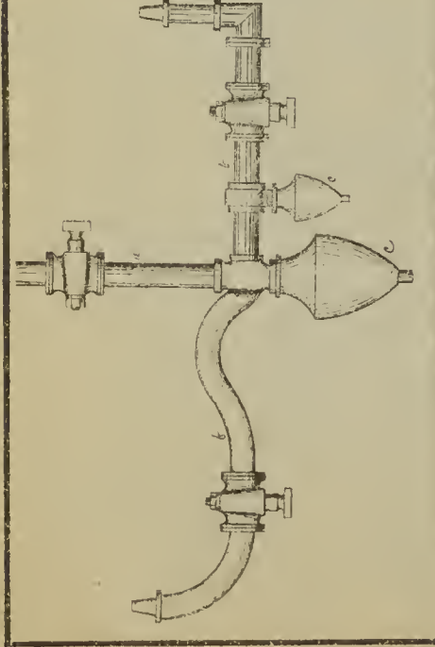
107,262,
J. BURROWS HYDE.
APPARATUS FOR CARBURETING AIR AND GAS.



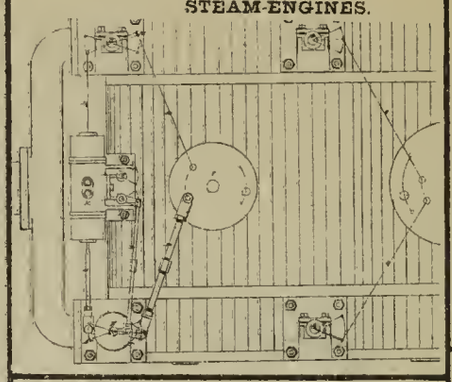
107,263,
J. BURROWS HYDE.
BLOW-PIPES.



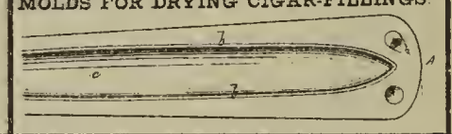
107,264, J. BURROWS HYDE.
TRAP-ATTACHMENT FOR GAS-FIXTURES.



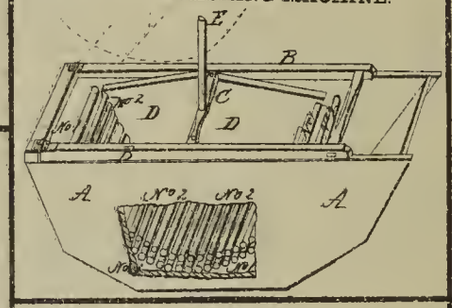
107,265, WILLIAM INGLIS.
JOHN FREDERICK SPENCER.
STEAM-ENGINES.



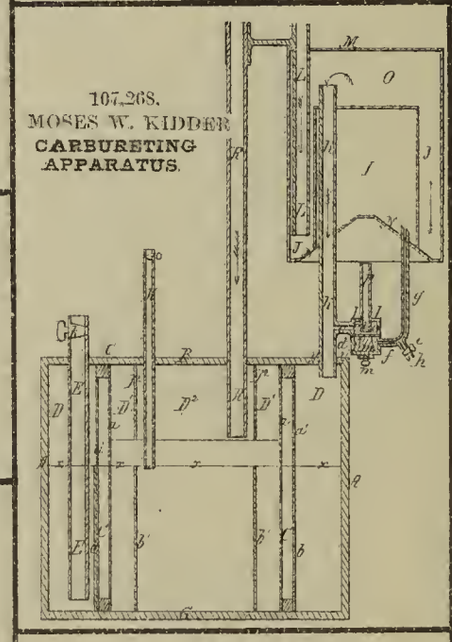
107,266, SAMUEL B. JEROME.
MOLDS FOR DRYING CIGAR-FILLINGS.



107,267, POWELL JOHNSON.
WASHING-MACHINE.

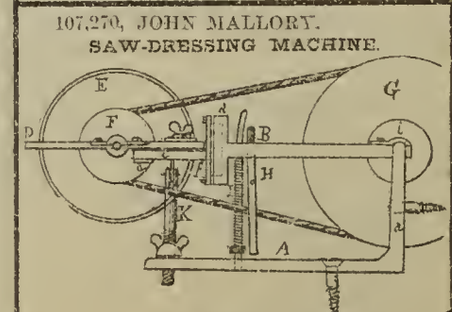


107,268,
MOSES W. KIDDER
CARBURETING APPARATUS.

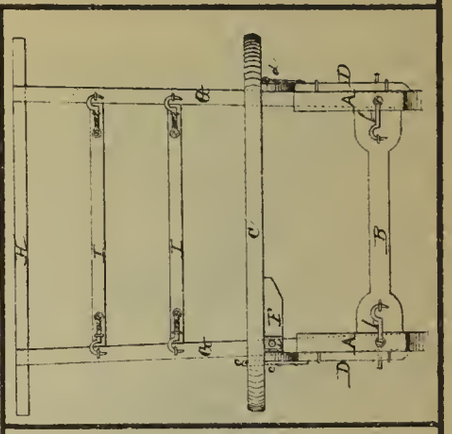


107,269, ANDREW his mark LEWIS. HARROWS

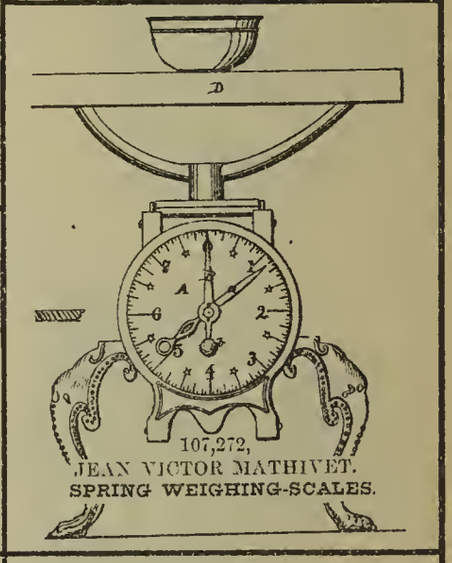
107,270, JOHN MALLORY.
SAW-DRESSING MACHINE.



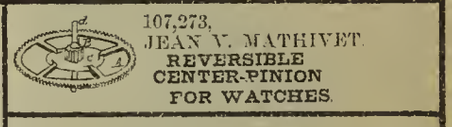
107,271, WM. A. SCHAFFNER.
JNO. F. MARTIN.
IRONING-TABLE.



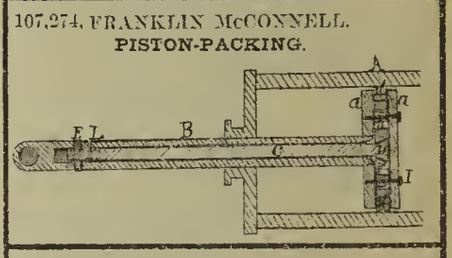
107,272,
JEAN VICTOR MATHIVET.
SPRING WEIGHING-SCALES.



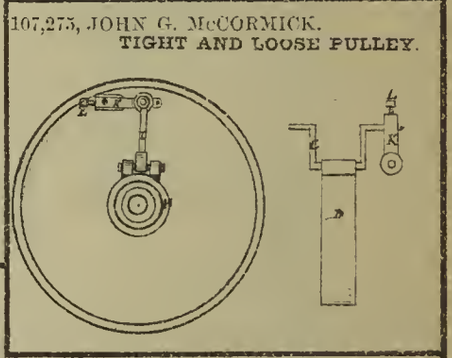
107,273,
JEAN V. MATHIVET.
REVERSIBLE CENTER-PINION FOR WATCHES.



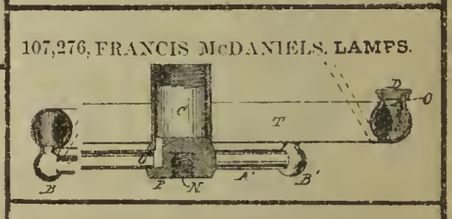
107,274, FRANKLIN McCONNELL.
PISTON-PACKING.



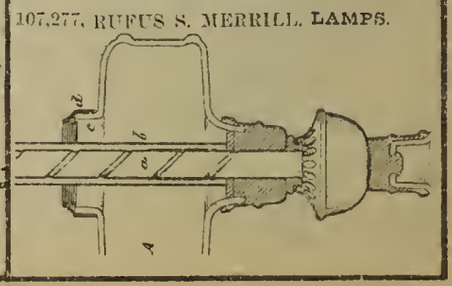
107,275, JOHN G. McCORMICK.
TIGHT AND LOOSE PULLEY.



107,276, FRANCIS McDANIELS. LAMPS.



107,277, RUFUS S. MERRILL. LAMPS.



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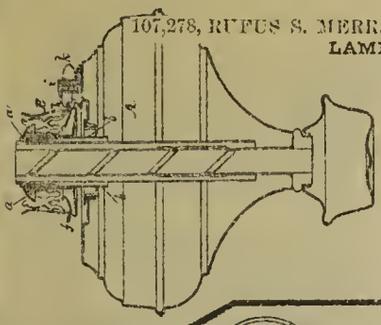
LAMPS.



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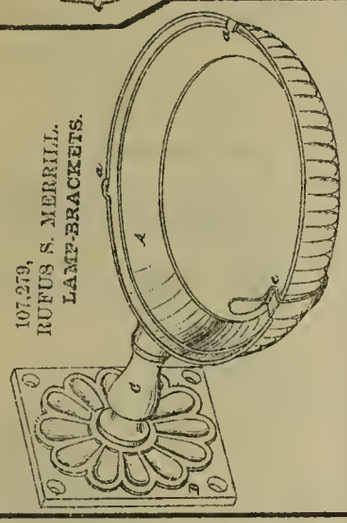
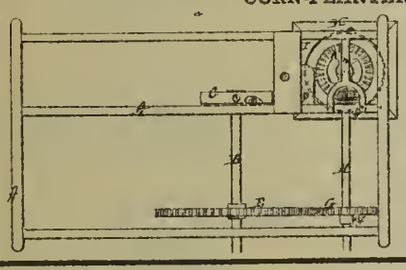
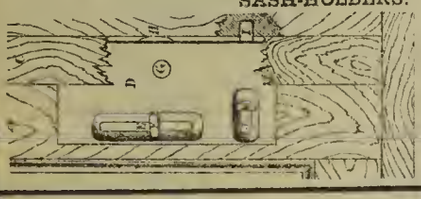
RUFUS S. MERRILL.
LAMP-BRACKETS.



107,280, SOLOMON MICKLEY.
CORN-PLANTER



107,281, A. D. MILLARD.
SASH-HOLDERS.



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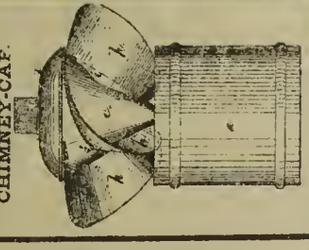
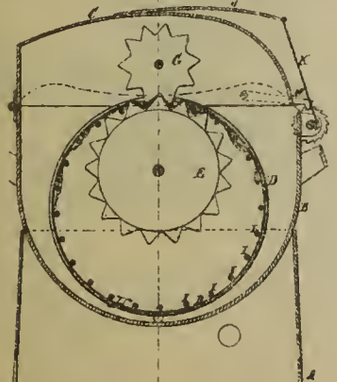
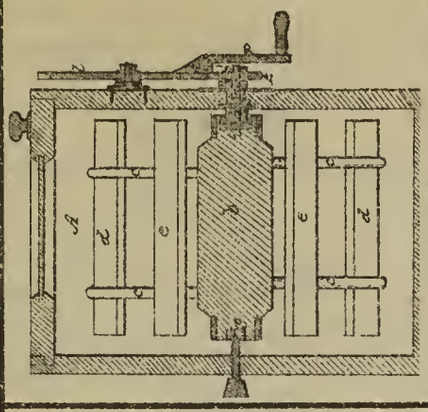
B. F. MILLER.
JOS. G. MILLER.
CHIMNEY-CAP.



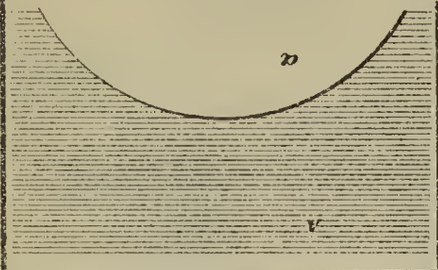
107,283, ALFRED L. D. MOORE.
WASHING MACHINE.



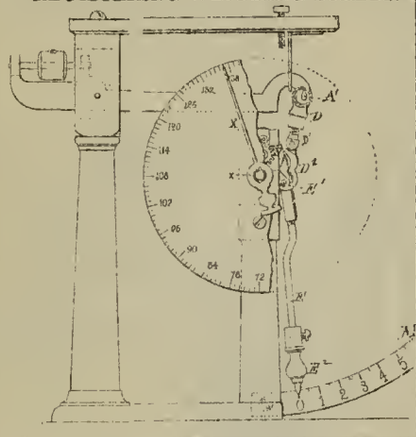
107,284, JOHN MOYERS. CHURNS.



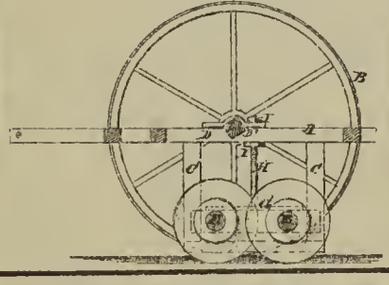
107,285, NORMAN O'DONNELL.
CUTTING OR LAP-BOARD.



107,286, HARVLIN PADDOCK.
REGISTERING WEIGHING-SCALES.



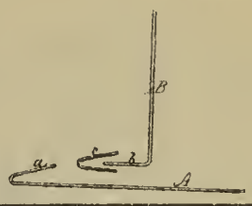
107,287, DR. JNO. W. PENCE.
EARTH-PULVERIZER.



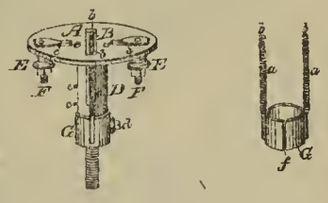
107,288, CHAUNCEY V. PETTIBONE.
THREAD-SPOOLS.

107,289.
JOEL PUTNAM.
SHOE.

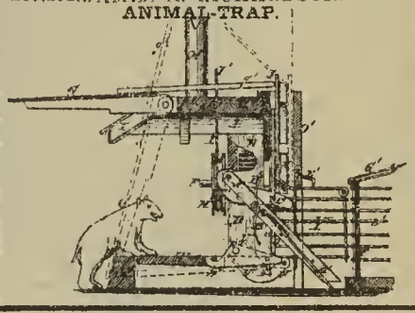
107,290, GEORGE A. REYNOLDS.
SEAMING THE ENDS OF
METALLIC ROOFING-PLATES.



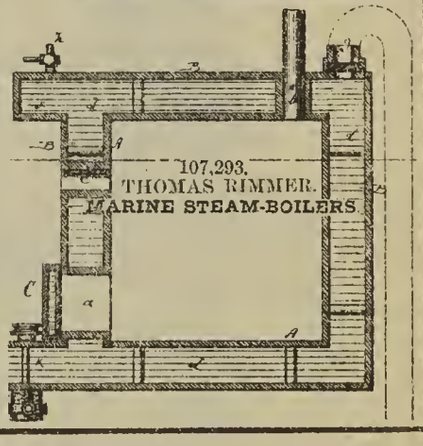
107,291, JOHN RICH. LATHE-CHUCK.



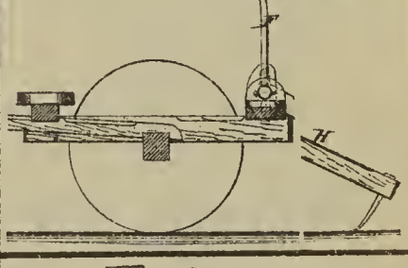
107,292, JAMES H. RICHARDSON.
ANIMAL-TRAP.



107,293.
THOMAS RIMMER.
MARINE STEAM-BOILERS.



107,294, ELI SAWYER.
MARKING ATTACHMENT
TO CORN-PLANTERS.



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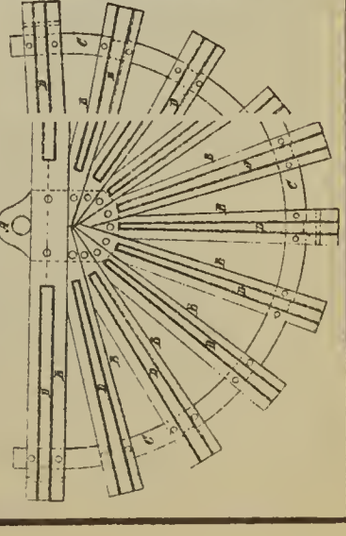
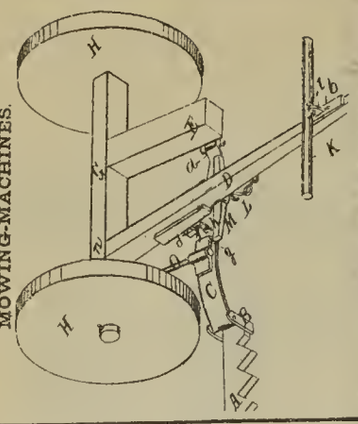
ANDREW SCHEFF.
CLOTHES-DRIER

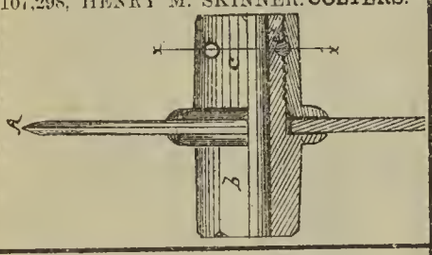


107,296, HENRY F. SHAW. MOWING-MACHINES.



107,297. PHINEAS L. SHERMAN. FENCES.

107,298, HENRY M. SKINNER. COLTERS.



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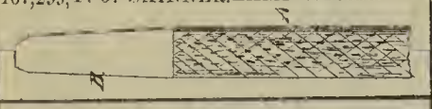
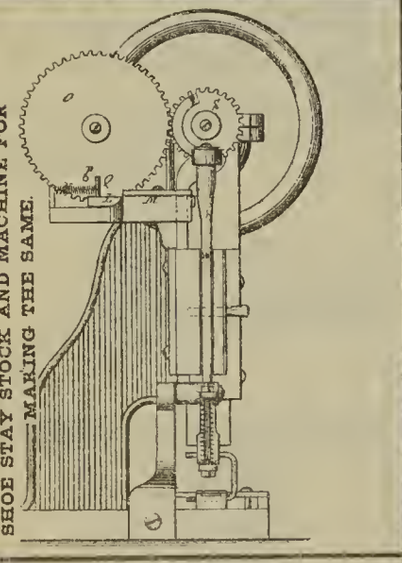
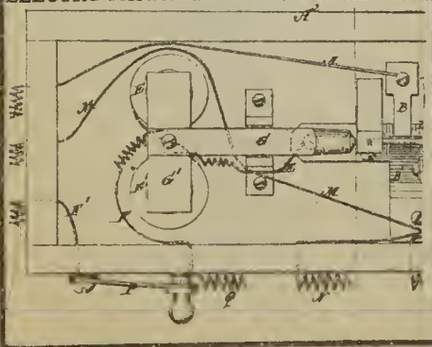


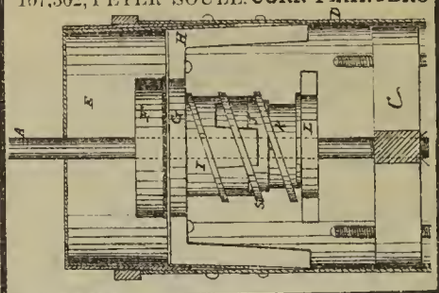
107,300, S. N. SMITH. SHOE STAY STOCK AND MACHINE FOR MAKING THE SAME.



107,301, JAMES P. SNYDER. AUTOMATIC CIRCUIT-CLOSER FOR ELECTRO-MAGNETIC BURGLAR-ALARMS.

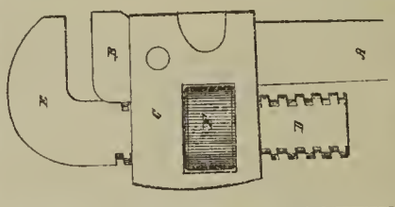


107,302, PETER SOULE. CORN-PLANTERS.

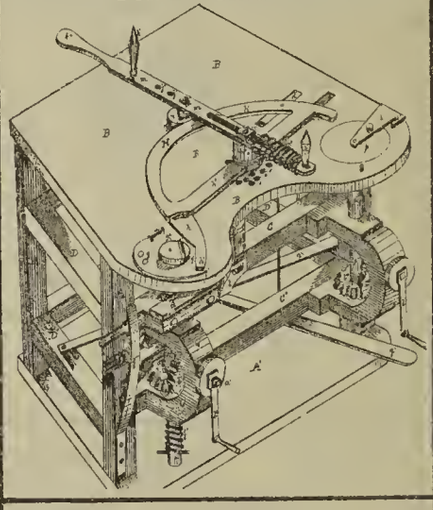


107,303, JOSEPH B. STEARNS. ATTACHING INSULATORS TO TELEGRAPH-POLES.

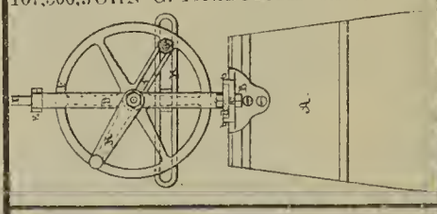
107,304, DANIEL C. STILLSON. WRENCHES.



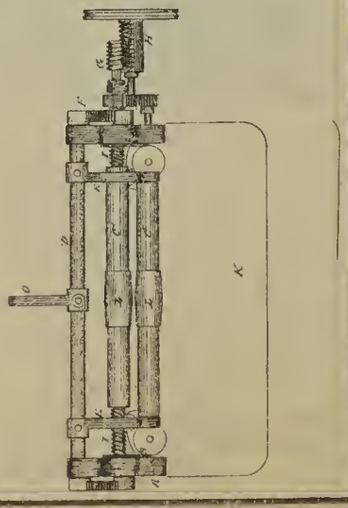
107,305, JAMES SUGDEN. MACHINES FOR BENDING RAKE-TEETH.

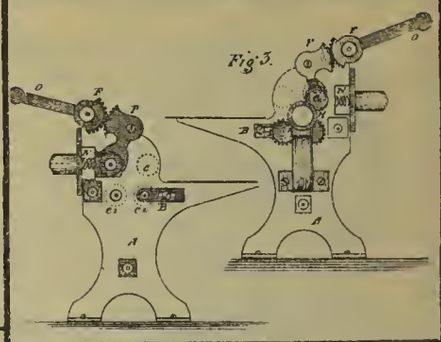


107,306, JOHN G. TALBOT. CHURNS.

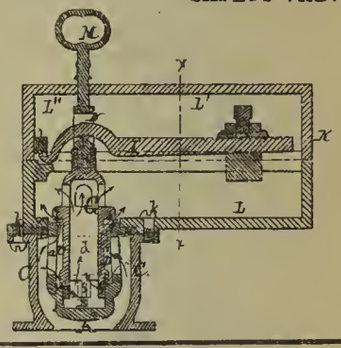


107,307, ISAAC TEN EYCK, JOHN O. REILLEY. CIGAR-MACHINES.

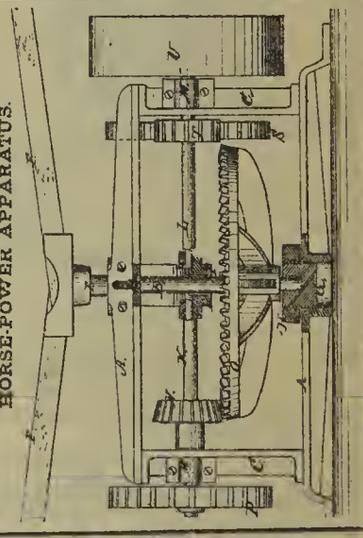




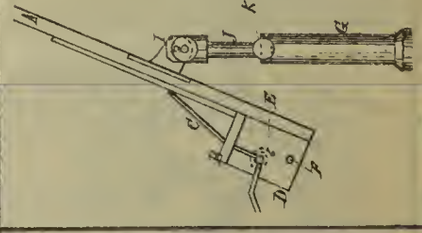
107,308, NICHOLAS THOMAS. SAFETY-VALVE.



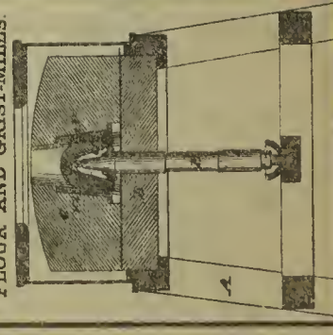
107,309, EDWARD O. THOMPSON, CHARLES B. THOMPSON. HORSE-POWER APPARATUS.



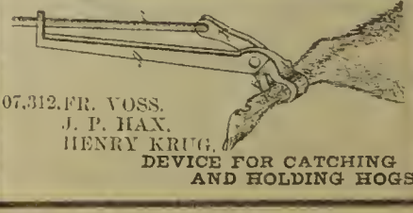
107,310, WM. J. THORN. BOOK-HOLDERS.



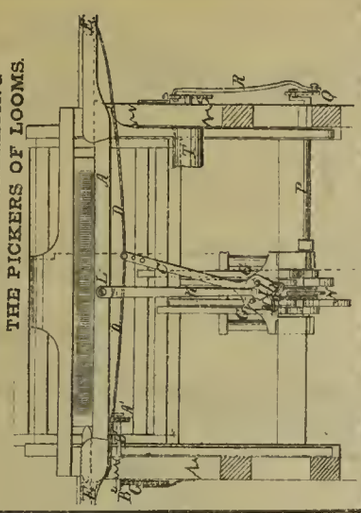
107,311, A. J. VANDEGRIFT. FLOUR AND GRIST-MILLS.



107,312, FR. VOSS, J. P. HAX, HENRY KRUG. DEVICE FOR CATCHING AND HOLDING HOGS.

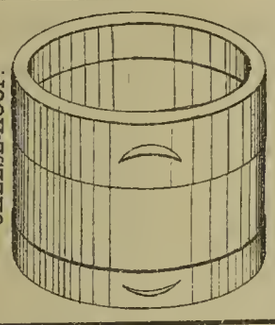


107,313, E. A. WAREHAM.
WM. H. WAGGONER.
MECHANISM FOR OPERATING THE PICKERS OF LOOMS.

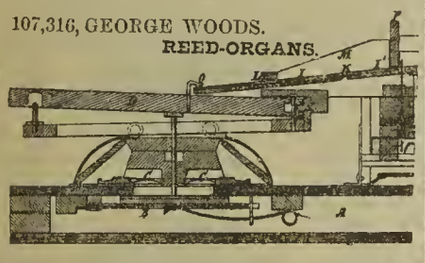


107,314, WILLIAM P. WENTWORTH.
SNOW-SHOVELS.

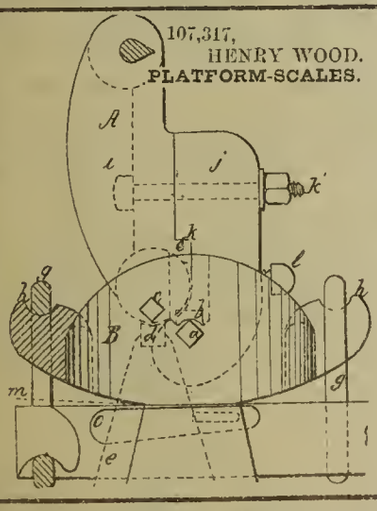
107,315, SAMUEL WILSON.
CHEESE-HOOP.



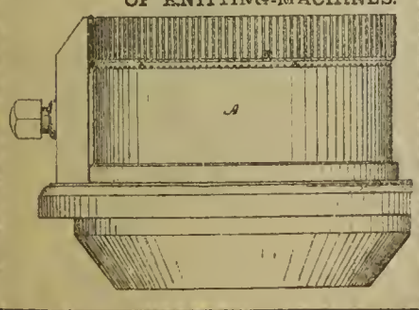
107,316, GEORGE WOODS.
REED-ORGANS.



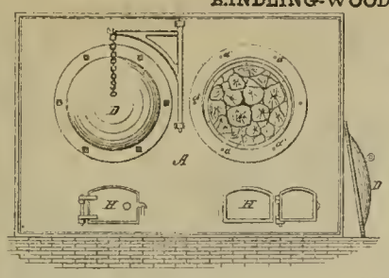
107,317, HENRY WOOD.
PLATFORM-SCALES.



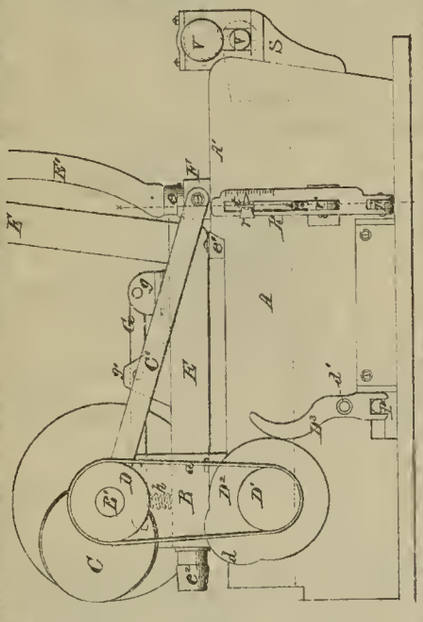
107,318, CHARLES H. YOUNG.
CONSTRUCTION OF CYLINDERS OF KNITTING-MACHINES.



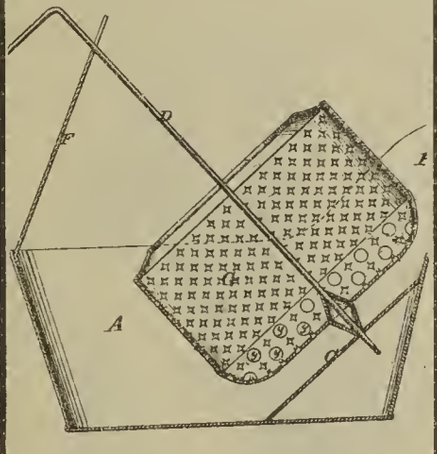
107,319, MERRITT T. ARNOLD.
KINDLING-WOOD.



107,320, JOHN T. ASHLEY.
PAPER-FEEDING APPARATUS.

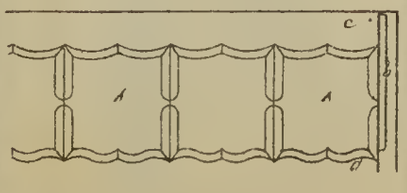


107,321, M. B. ATKINSON.
POTATO AND FRUIT PEELERS.



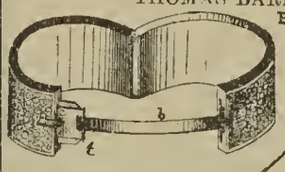
107,322. JAMES E. ATWOOD.
REFINING IRON AND STEEL.

107,323, CLARK AVERY.
SIDING FOR BUILDINGS.

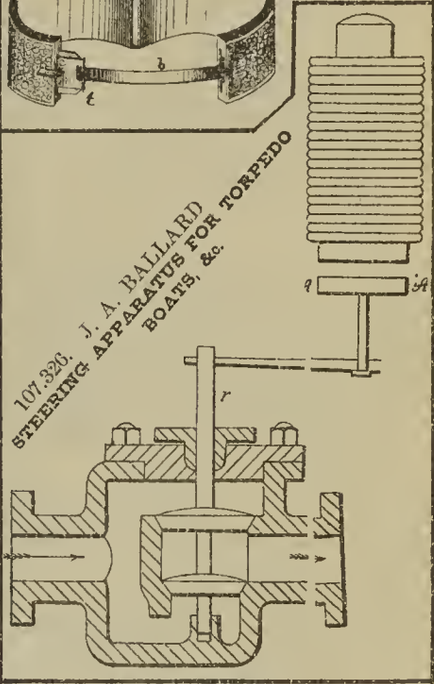


107,324, B. T. BABBITT.
PROCESS OF OBTAINING GLYCERINE FROM SOAP-MAKERS' SPENT LYES.

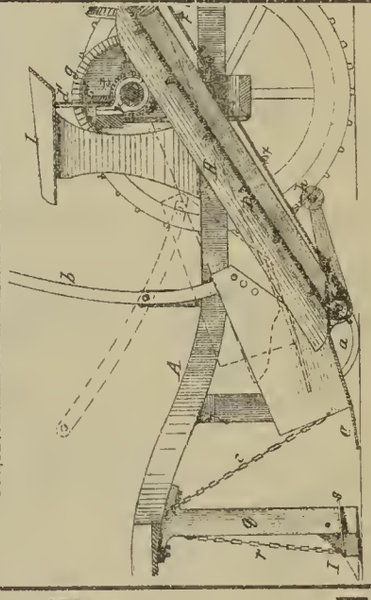
107,325, WM. H. BALL.
THOMAS BARNARD.
BRACELETS.



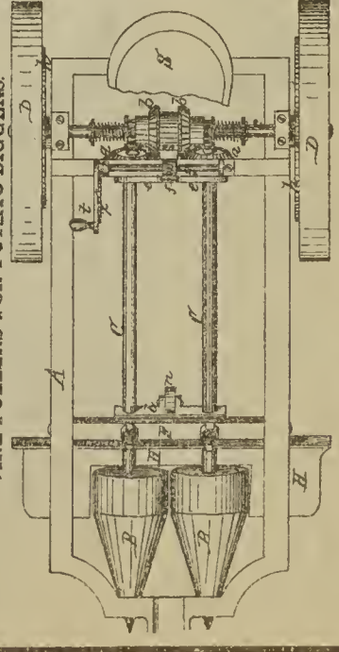
107,326, J. A. BALLARD.
STEERING APPARATUS FOR TORPEDO BOATS, &c.



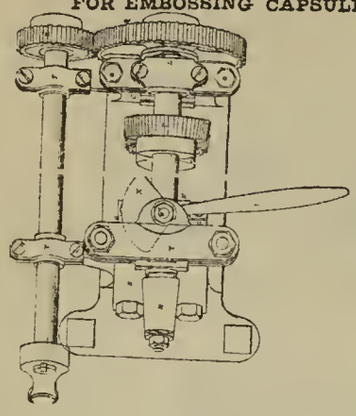
107,327, LEANDER BERRY. POTATO-DIGGERS.



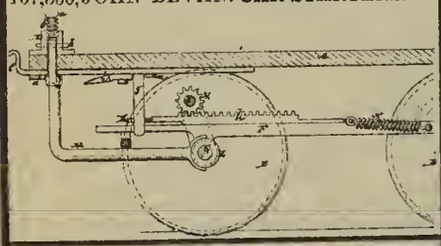
107,328, LEANDER BERRY.
VINE-PULLERS FOR POTATO-DIGGERS.



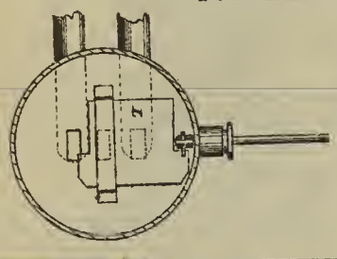
107,329. W. BETTS. MACHINES FOR EMBOSSING CAPSULES.

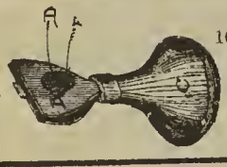


107,330, JOHN BEVAN. CAR-STARTERS.



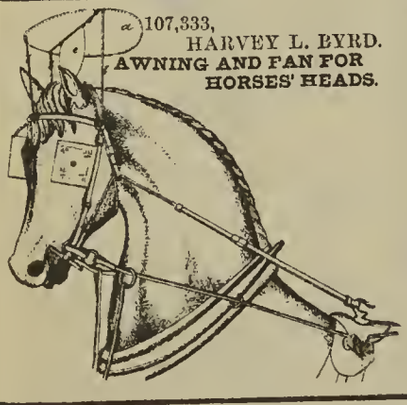
107,331, JOHN A. BRADSHAW.
WM. H. BROWN.
DARIUS WHITHED.
POWER-METERS.



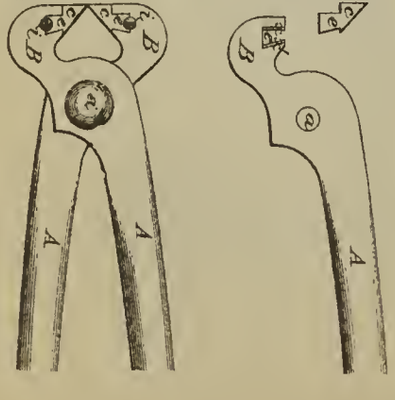


107,332. T. C. BUSH.
BUTTON-HOLE CUTTER.

107,333,
HARVEY L. BYRD.
AWNING AND FAN FOR HORSES' HEADS.

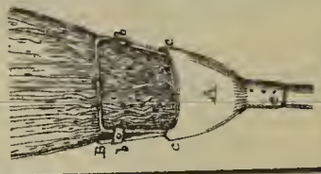


107,334, FRANK CAREW. WIRE-CUTTER.

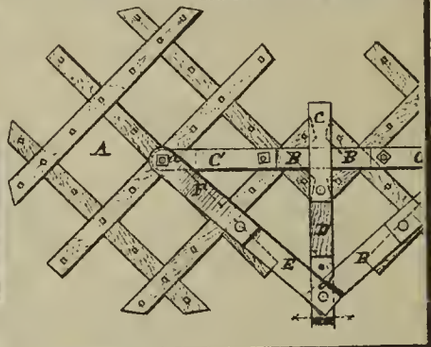


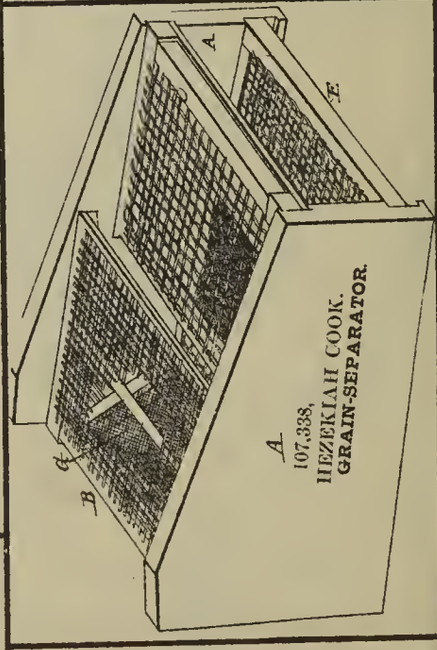
107,335, GEORGE CHAMBERLIN.
DRAFT-HARNESS.

107,336,
EUGENE CHAPMAN.
BROOM OR MOP-CLAMP.



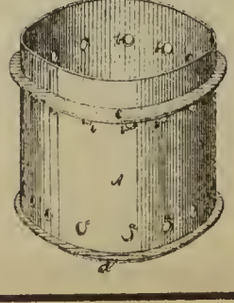
107,337, GEORGE COLLINS.
ROTARY HARROWS.



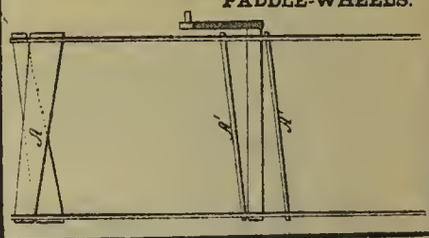


A.
107,338,
HEZEKIAH COOK.
GRAIN-SEPARATOR.

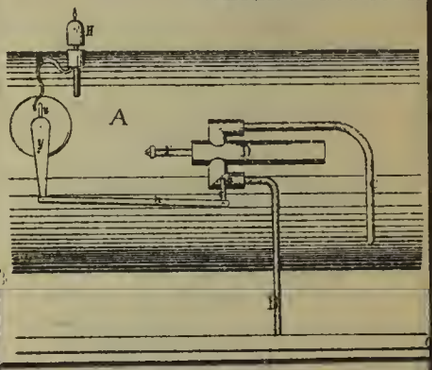
107,339, JACOB D. COPENHAVER.
CHARRING BARREL-HEADS.



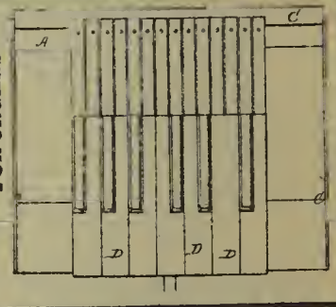
107,340, MATTHEW A. CROOKER.
PADDLE-WHEELS.



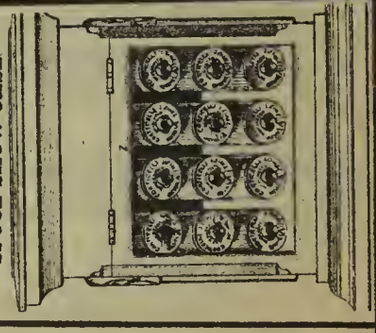
107,341, GEORGE W. DARBY.
AMOS S. MOON.
WATER-REGULATOR.



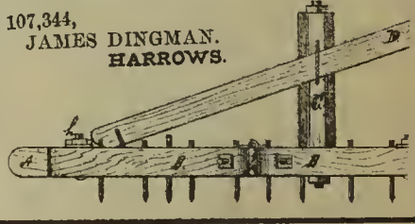
107,342, WILLARD G. DAY.
TRANSPOSING MECHANISM FOR ORGANS



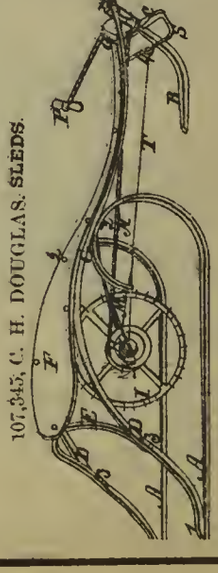
107,343, IRA DIMOOK.
SPOOL SHOW-CASE.

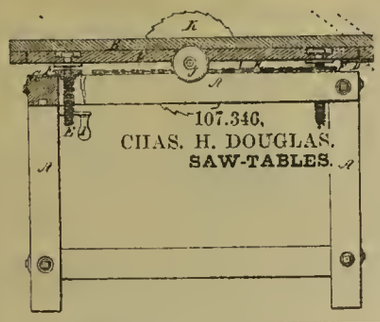


107,344,
JAMES DINGMAN.
HARROWS.

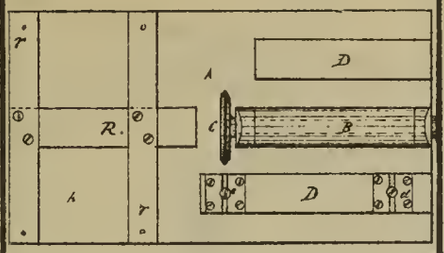


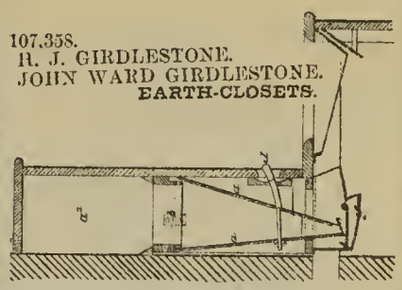
107,345, C. H. DOUGLAS. SLEDS.





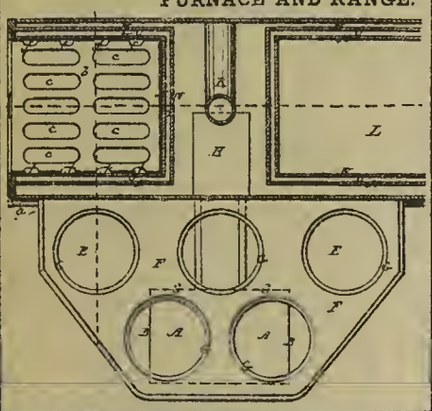
107,346, CHAS. H. DOUGLAS. SAW-TABLES.





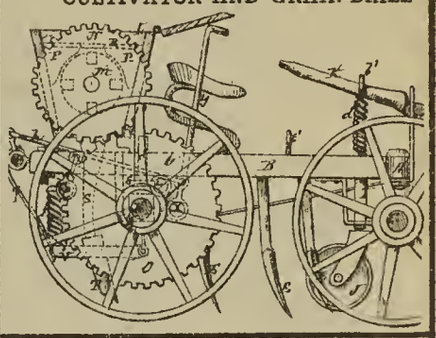
107,358. R. J. GIRDLESTONE. JOHN WARD GIRDLESTONE. EARTH-CLOSETS.

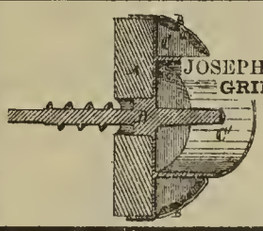
107,347, EBEN EDWARDS. FURNACE AND RANGE.



107,352, MAURICE FITZGIBBONS. WOOD PAVEMENT.

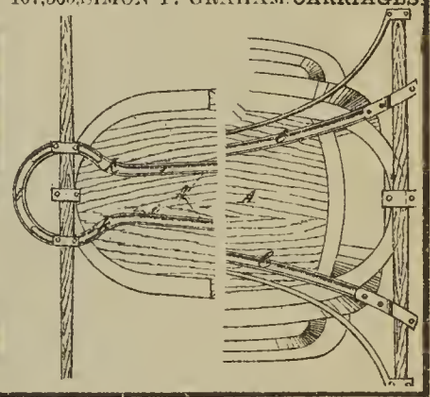
107,359. JOHN GIRE. COMBINED CULTIVATOR AND GRAIN-DRILL





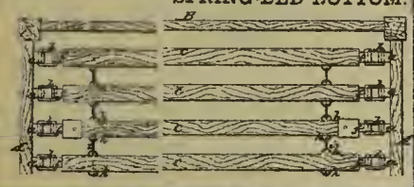
107,353, JOSEPH A. FORSMAN. GRINDING-MILLS.

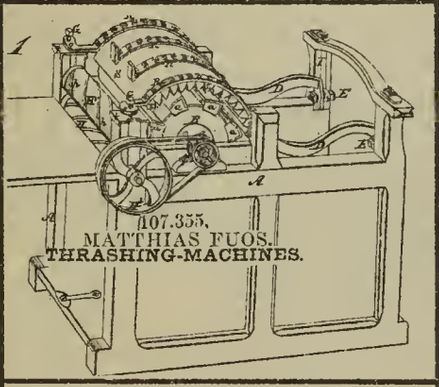
107,360. SIMON P. GRAHAM. CARRIAGES.



107,354. ALBERT L. FRANCE. SHUTTER-FASTENERS.

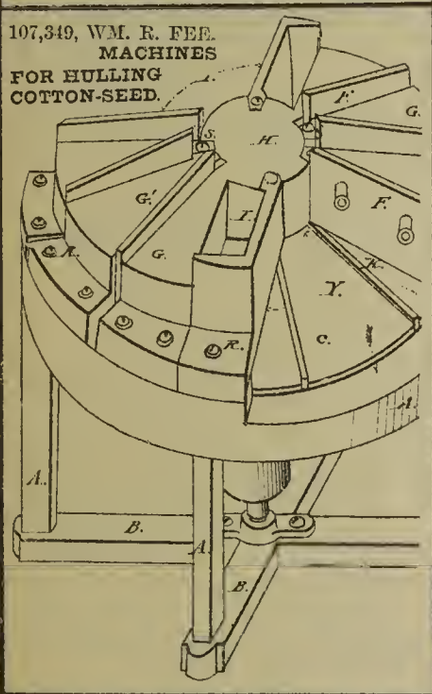
107,348, A. H. FATZINGER. SPRING-BED BOTTOM.



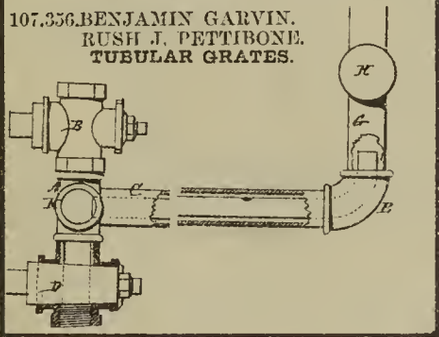


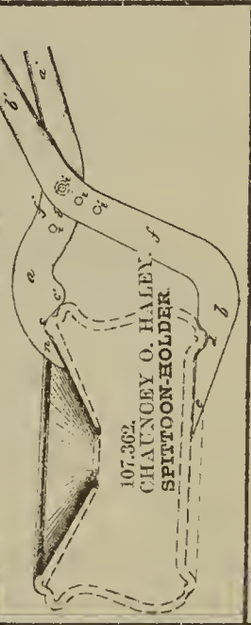
107,355, MATTHIAS FUOS. THRASHING-MACHINES.

107,349, WM. R. FEE. MACHINES FOR HULLING COTTON-SEED.

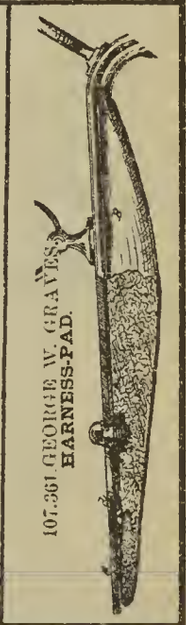


107,356. BENJAMIN GARVIN. RUSH J. PETTIBONE. TUBULAR GRATES.



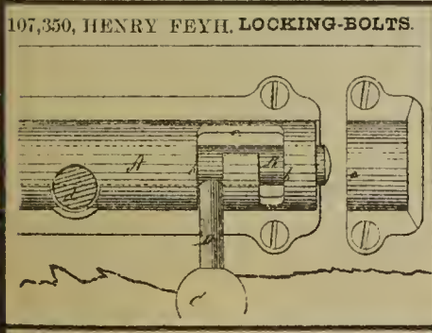


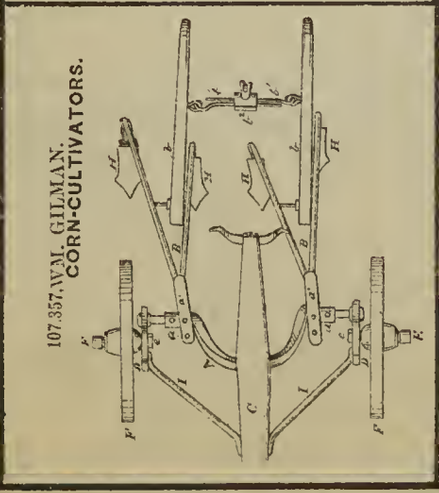
107,362. CHAUNCEY O. HALEY. SPITTOON-HOLDER.



107,361. GEORGE W. GRAVES. HARNESS-PAD.

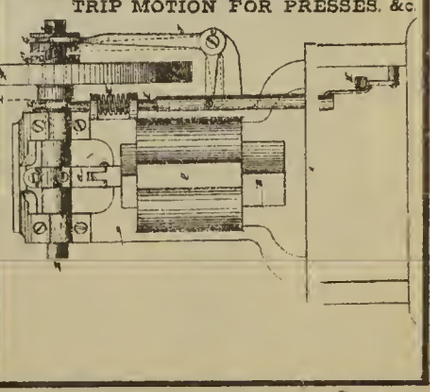
107,350, HENRY FEYH. LOCKING-BOLTS.





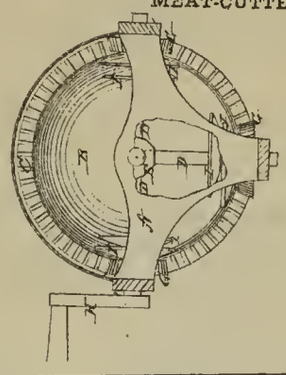
107,357. WM. GILMAN. CORN-CULTIVATORS.

107,363. ALBERT HAMLIN. TRIP MOTION FOR PRESSES, &c.

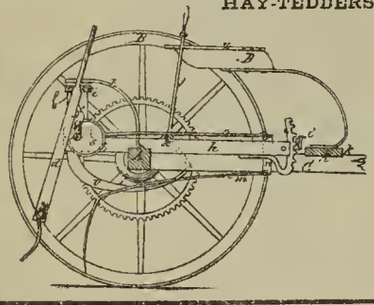


107,351. S. B. FITCH. SHEET-METAL CUTTING-MACHINE.

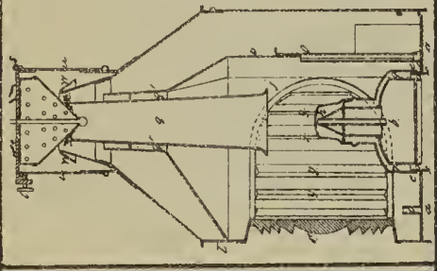
107,364, THOMAS HARTLEY.
MEAT-CUTTER



107,365, MOSES B. HARVEY.
HAY-TEDDERS.

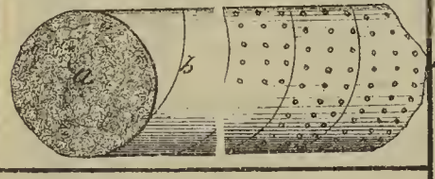


107,366, WM. HARVIE.
LAMPS AND LANTERNS

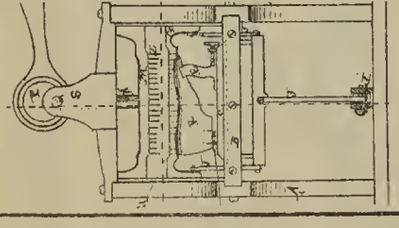


107,367, FRANCIS H. HATCH
B. R. HAWLEY.
PRESERVING MEAT.

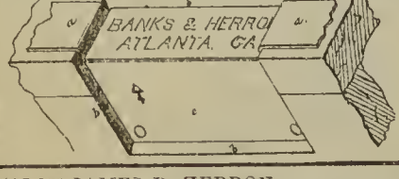
107,368, RANDALL D. HAY. PROCESS FOR
MANUFACTURING TOBACCO-PLUGS



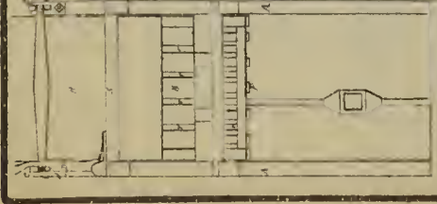
107,369, C. H. HELMS.
MACHINE FOR FASTENING SOLES.

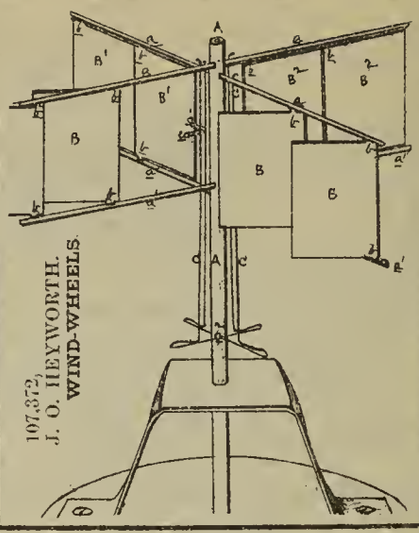


107,370, JAMES P. HERRON.
SEALS FOR METAL STRAPS ON BOXES.



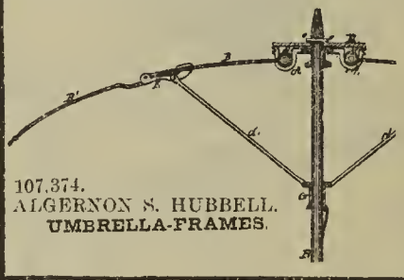
107,371, JAMES P. HERRON.
COTTON AND HAY-PRESSES.





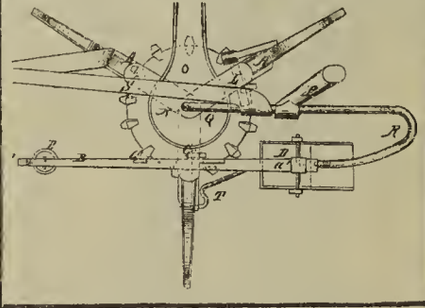
107,372,
J. O. HEYWORTH.
WIND-WHEELS.

107,373. SUSPENDED.

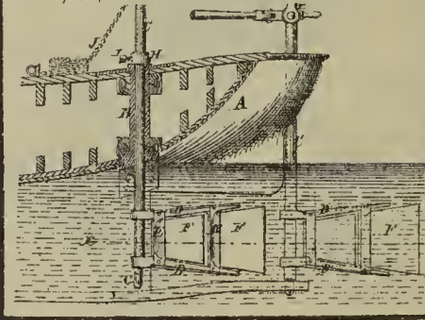


107,374.
ALGERNON S. HUBBELL.
UMBRELLA-FRAMES.

107,375, WILLIAM W. HULL.
IRRIGATING-MACHINES.

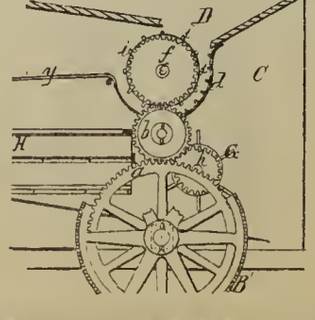


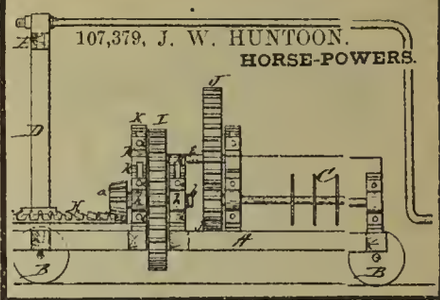
107,376, R. HUNTER. PROPELLERS.



107,377, CANCELED.

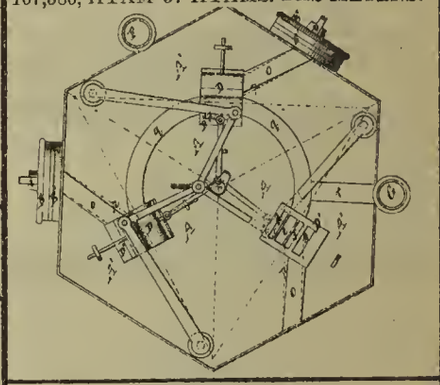
107,378, JAMES W. HUNTOON.
COMBINED CORN-HUSKER AND SHELLER
AND GRAIN-THRASHER AND CLEANER.

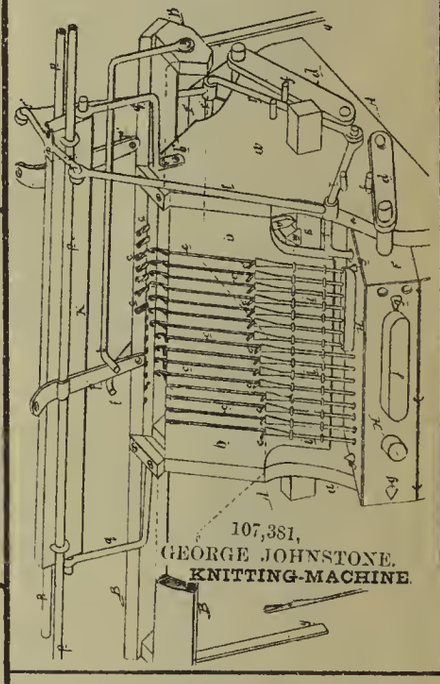




107,379, J. W. HUNTOON.
HORSE-POWERS.

107,380, HYAM J. HYAMS. GAS-METERS.



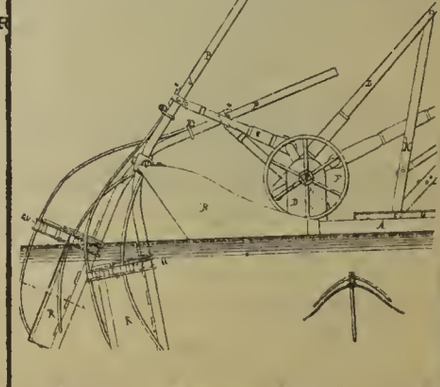


107,381,
GEORGE JOHNSTONE.
KNITTING-MACHINE.

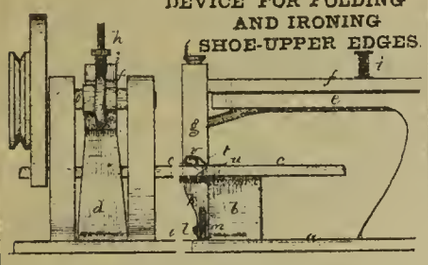
107,382, WM. H. JONES.
ROOFING COMPOSITION.

107,383, WILLIAM B. JUDSON.
SPRING MATTRESS.

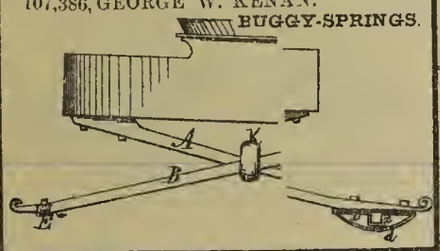
107,384, RICHARD KEARNEY.
PROPELLING APPARATUS.



107,385, CHARLES A. KEITH.
JEREMIAH KEITH.
THOMAS K. KEITH.
DEVICE FOR FOLDING AND IRONING SHOE-UPPER EDGES.

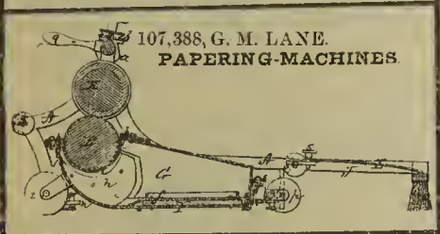


107,386, GEORGE W. KENAN.
BUGGY-SPRINGS.

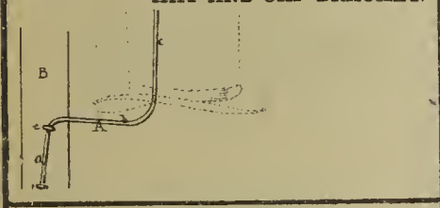


107,387. W. T. KOSINSKI.
COATING FOR STEAM PIPES, BOILERS.

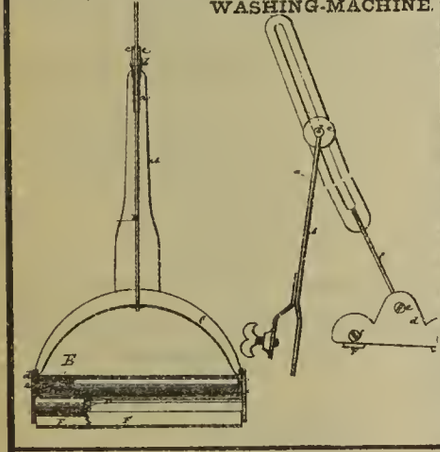
107,388, G. M. LANE.
PAPERING-MACHINES.



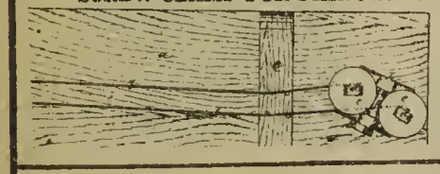
107,389. T. LAWRENCE.
HAT AND CAP BRACKET.



107,390, REUBEN LIGHTHALL.
WASHING-MACHINE.

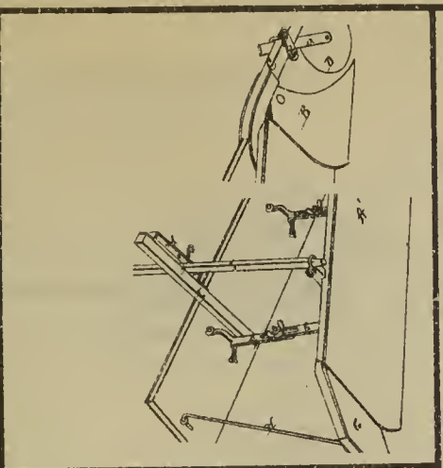


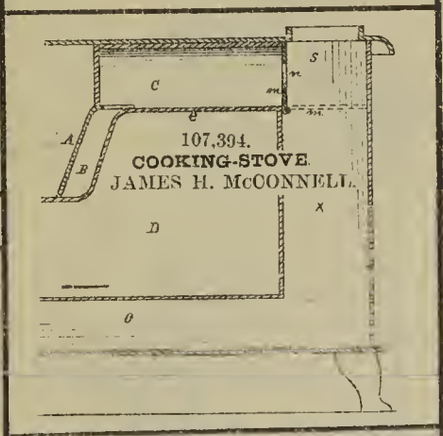
107,391, CHARLES M. LINDSAY.
SCREW-CLAMP FOR PIANO-PINS.



107,392.
ANDREW JACKSON LUFFBARRY, JR.
OUTRIGGERS FOR ROW-BOATS.

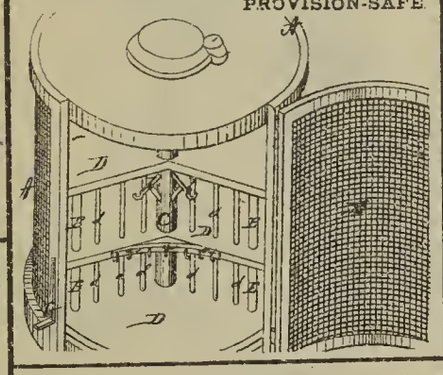
107,393, JOHN H. MARTIN.
CLINTON D. BRADSHAW.
DITCHERS AND GRADERS.



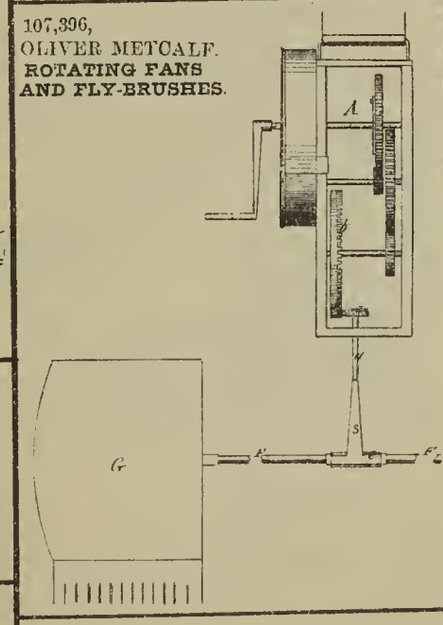


107,394.
COOKING-STOVE.
JAMES H. McCONNELL.

107,395, WAIT MEAD.
GEORGE E. STARBUCK.
PROVISION-SAFE.

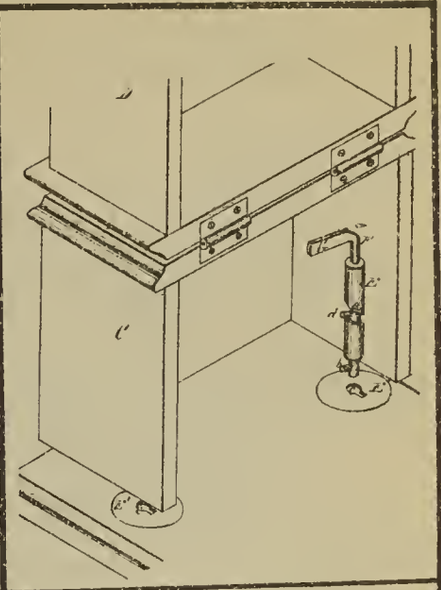


107,396,
OLIVER METCALF.
ROTATING FANS AND FLY-BRUSHES.

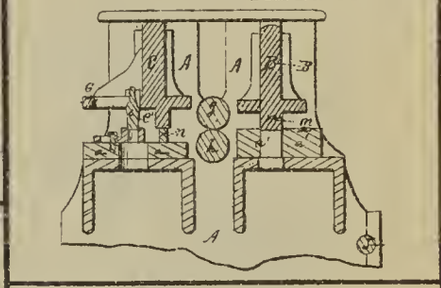


107,397, DAMIAN MINDERLE.
SCRUBBING-BRUSH.

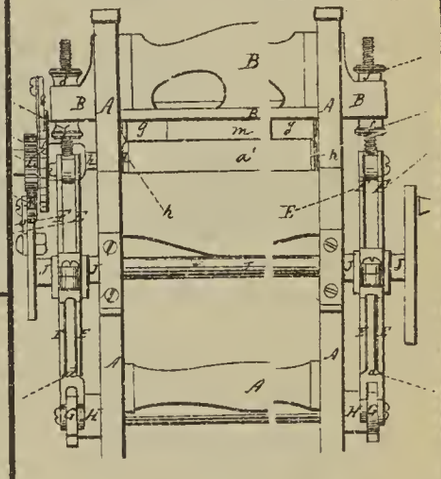
107,398, JOHN H. MOONEY.
DEVICE FOR SECURING COVERS UPON SEWING-MACHINES.

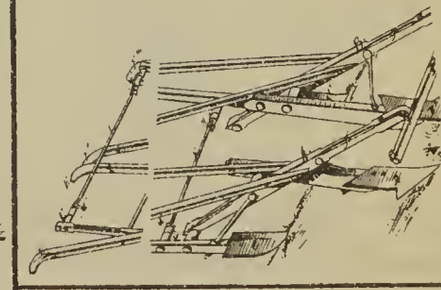


107,399, CHARLES E. MOORE.
MARTIN L. WYMAN.
MACHINES FOR MAKING PAPER COLLARS.

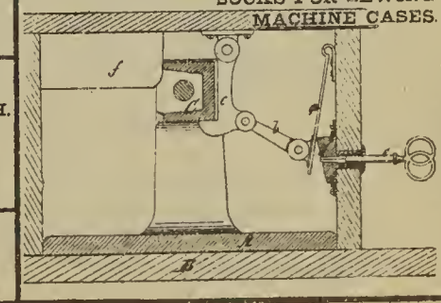


107,400, FELIX G. MOURNING.
CORN-PLOWS.

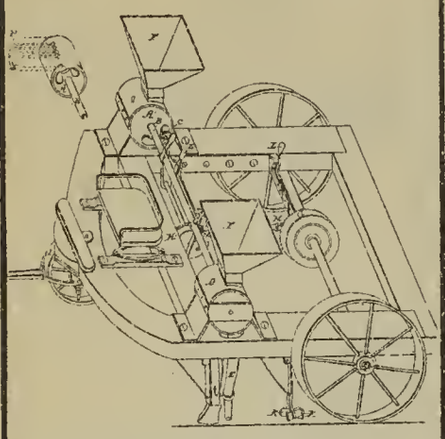




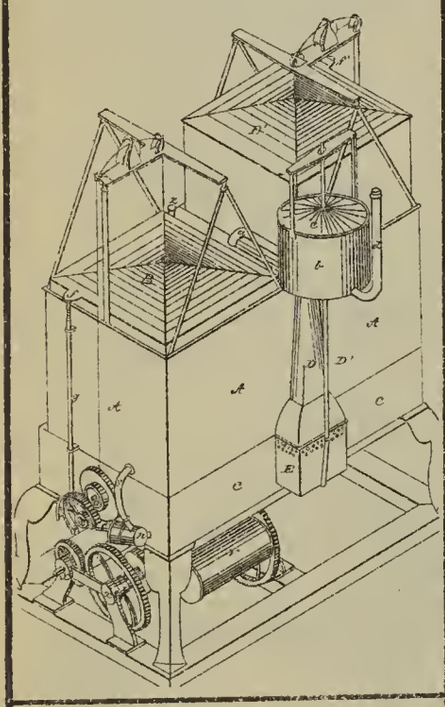
107,401, H. O. NAUEN.
LOCKS FOR SEWING-MACHINE CASES.



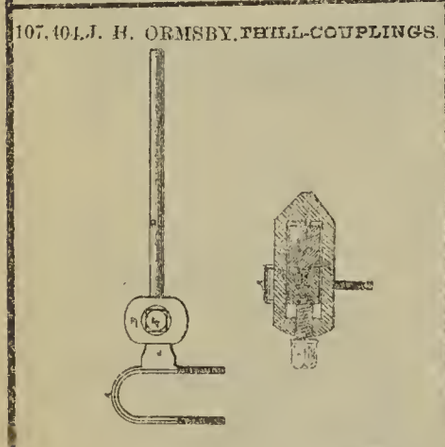
107,402. CORN-PLANTERS.
HENRY AUSTIN NICHOLLS.



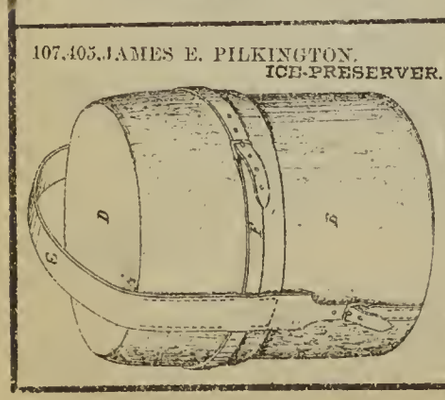
107,403. H. OERTEL.
APPARATUS FOR CARBURETING AIR



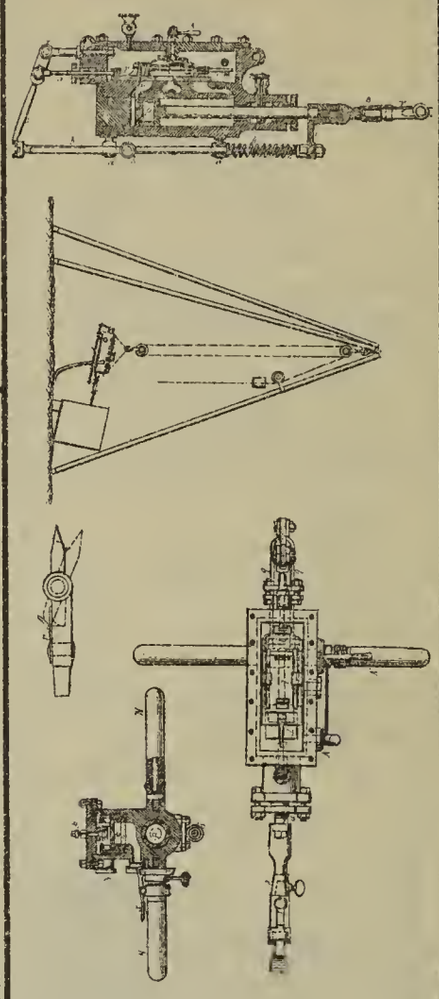
107,404. J. H. ORMSBY. THILL-COUPLINGS.



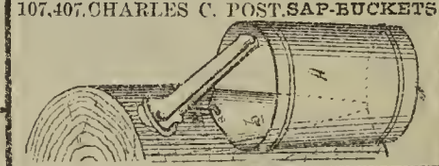
107,405. JAMES E. PILKINGTON.
ICE-PRESERVER.



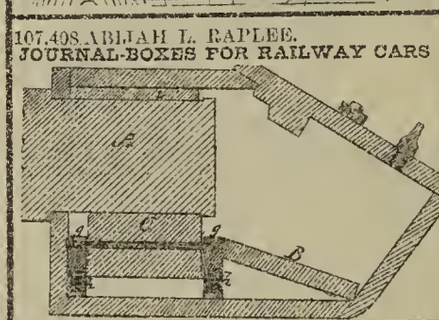
107,406. L. POCHET.
VALVES IN STEAM APPARATUS FOR DRESSING STONE.



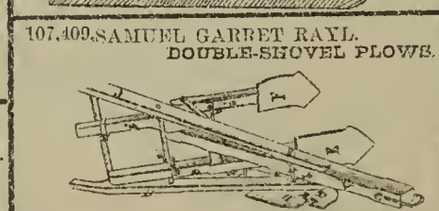
107,407. CHARLES C. POST. SAP-BUCKETS



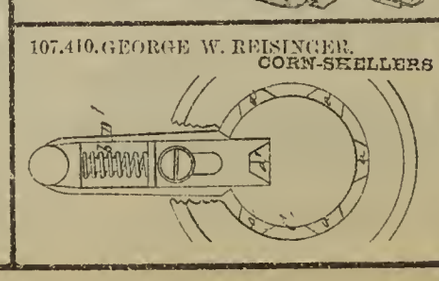
107,408. ABIJAH L. RAPLEE.
JOURNAL-BOXES FOR RAILWAY CARS



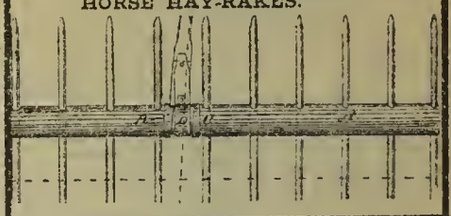
107,409. SAMUEL GARRET RAYL.
DOUBLE-SHOVEL PLOWS.



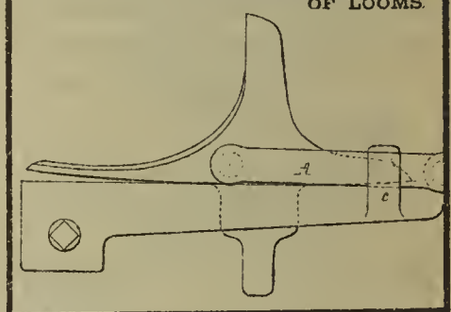
107,410. GEORGE W. REISINGER.
CORN-SHELLERS



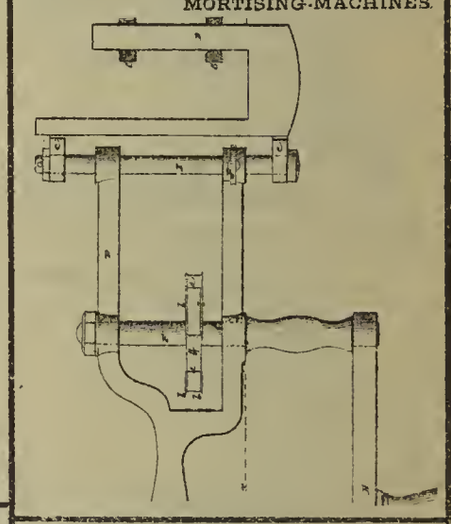
107,411. MACEDON J. ROBINSON
HORSE HAY-RAKES.



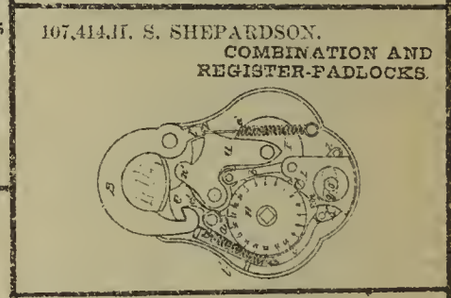
107,412. WANTON ROUSE.
OPERATING THE PICKER-STAFF OF LOOMS.



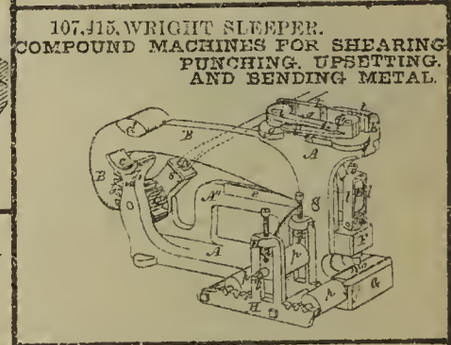
107,413.
DAVID S. SHEARER.
MORTISING-MACHINES.



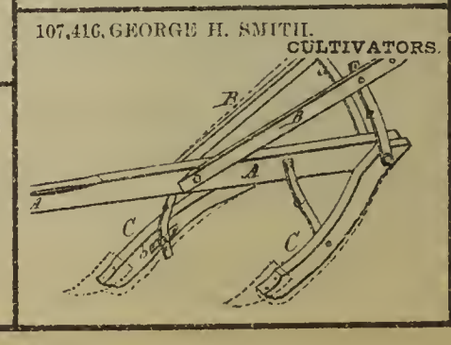
107,414. H. S. SHEPARDSON.
COMBINATION AND REGISTER-PADLOCKS.



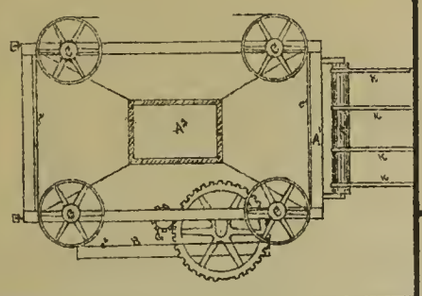
107,415. WRIGHT SLEEPER.
COMPOUND MACHINES FOR SHEARING, PUNCHING, UPSETTING, AND BENDING METAL.



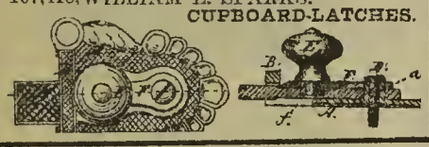
107,416. GEORGE H. SMITH.
CULTIVATORS.



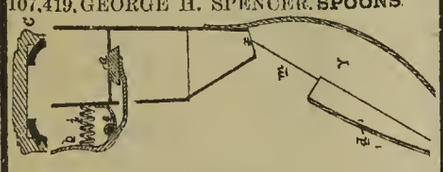
107,417. M. P. SMITH. DRIER.



107,418, WILLIAM E. SPARKS. CUPBOARD-LATCHES.

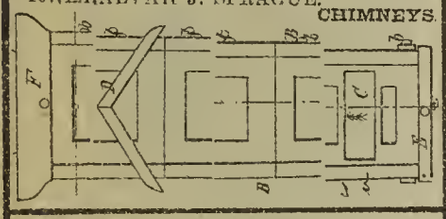


107,419, GEORGE H. SPENCER. SPOONS.

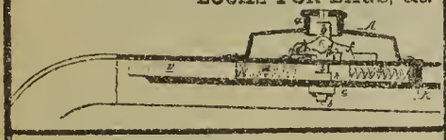


107,420, GEORGE H. SPENCER. FINGER-GUARDS.

107,421, ALVAH J. SPRAGUE. CHIMNEYS.

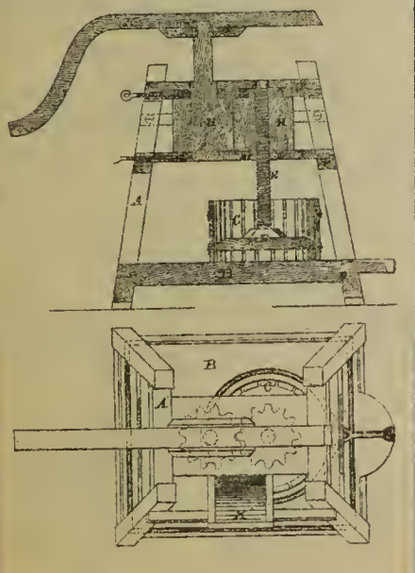


107,422, BERNARD STEINMETZ. LOCKS FOR BAGS, &c.

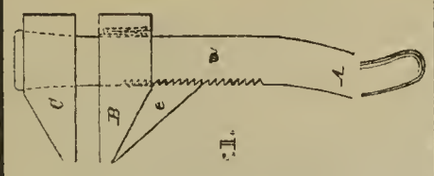


107,423, BYRON G. SWAIN. CURD-AGITATORS.

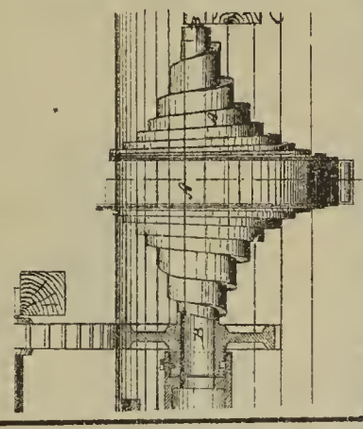
107,424, LEWIS R. TAYLOR. CIDER-MILLS.



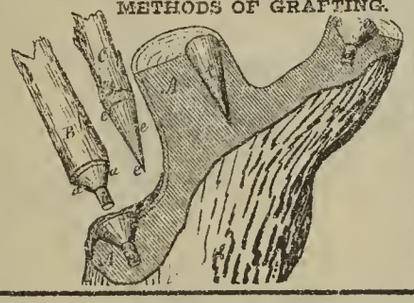
107,425, HENRY TREGELLAS. WRENCHES.



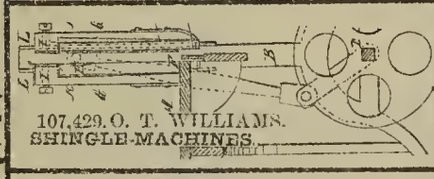
107,426, BERNHARD VATER. WATER-ELEVATORS.



107,427, DAVID S. WAGENER. METHODS OF GRAFTING.

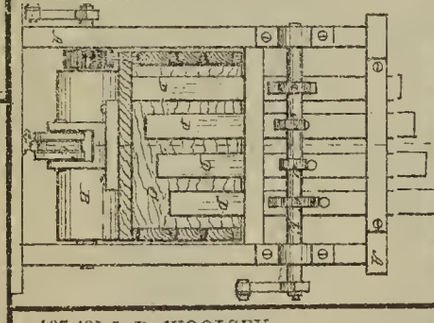


107,428, SYLVESTER P. WHEELER. COATING EMBOSSED WOOD.



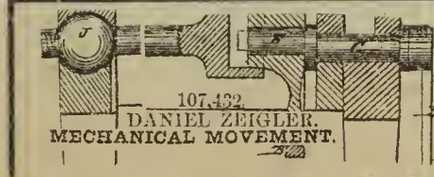
107,429, O. T. WILLIAMS. SHINGLE-MACHINES.

107,430, W. F. WITTE. WASHING-MACHINE FOR WASTE, &c.

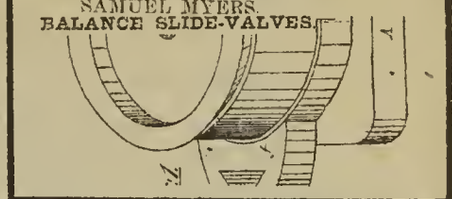


107,431, J. B. WOOLSEY. WASHING-MACHINE.

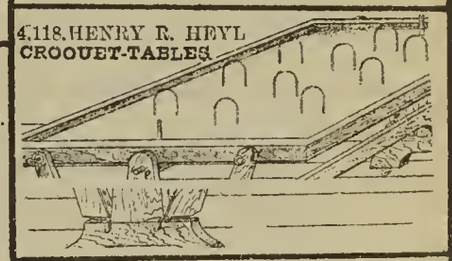
107,432, DANIEL ZEIGLER. MECHANICAL MOVEMENT.



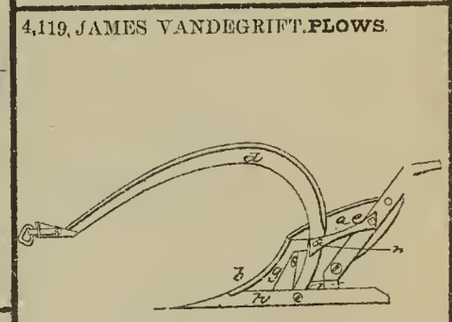
4,117, THOMAS M. HERRIOTT, SAMUEL MYERS. BALANCE SLIDE-VALVES.



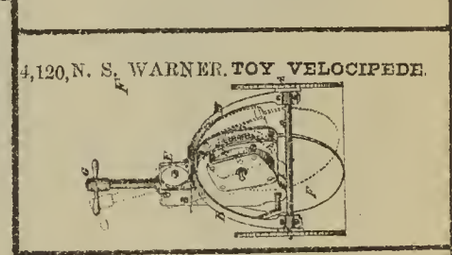
4,118, HENRY R. HEYL. CROQUET-TABLES.



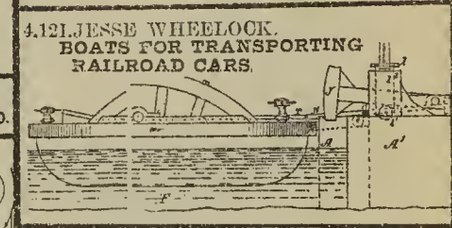
4,119, JAMES VANDEGRIFT. PLOWS.



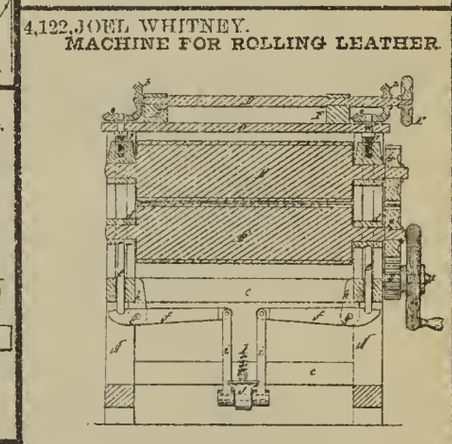
4,120, N. S. WARNER. TOY VELOCIPEDE.



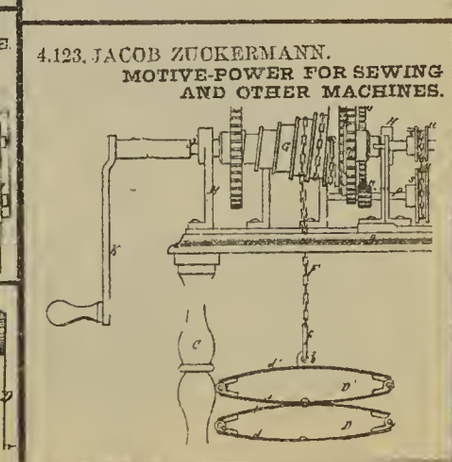
4,121, JESSE WHEELOCK. BOATS FOR TRANSPORTING RAILROAD CARS.



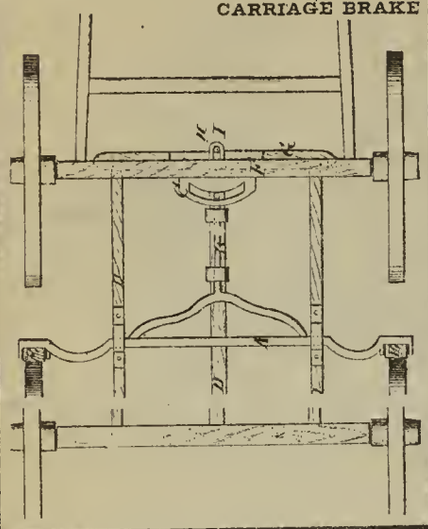
4,122, JOEL WHITNEY. MACHINE FOR ROLLING LEATHER.



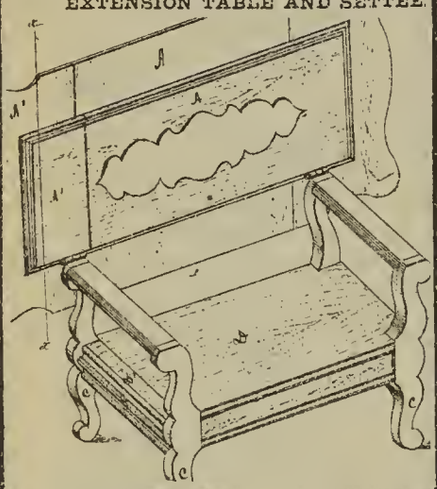
4,123, JACOB ZUCKERMANN. MOTIVE-POWER FOR SEWING AND OTHER MACHINES.



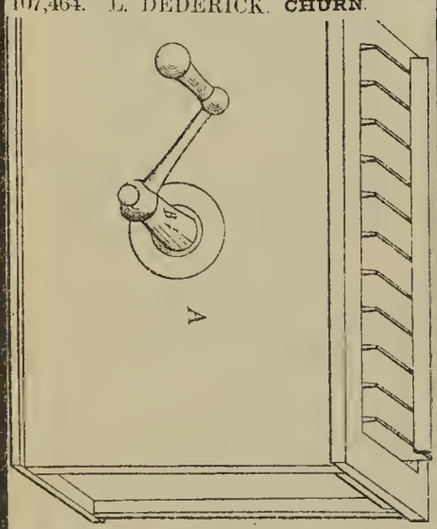
107,462. H. B. S. DAVIS. CARRIAGE BRAKE



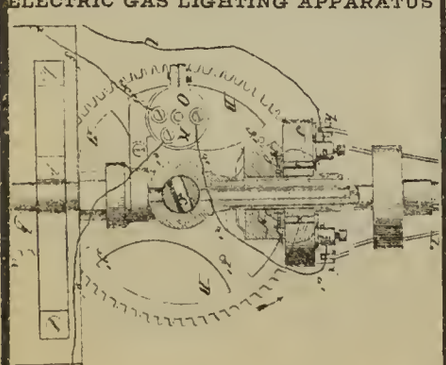
107,463. M. DEBZELL. EXTENSION TABLE AND SETTEE.



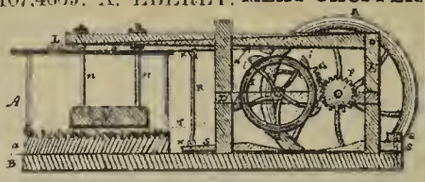
107,464. L. DEDERICK. CHURN.



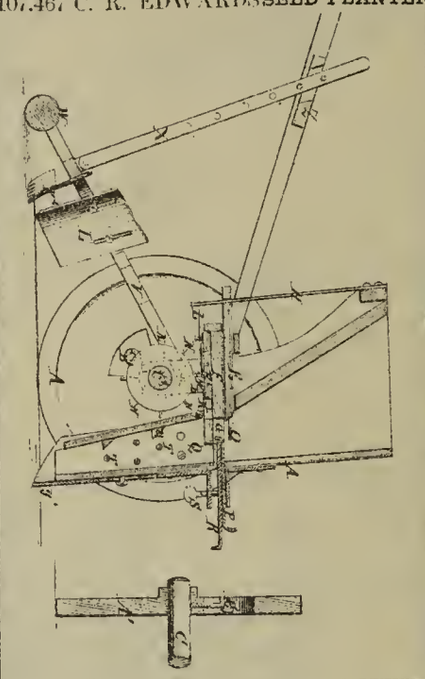
107,465. C. N. EALER. ELECTRIC GAS LIGHTING APPARATUS



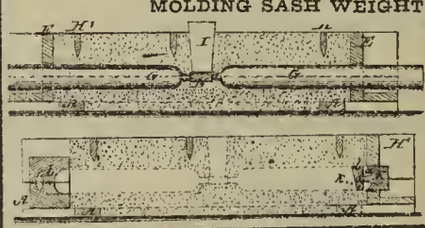
107,466 J. A. EBERLY. MEAT CHOPPER.



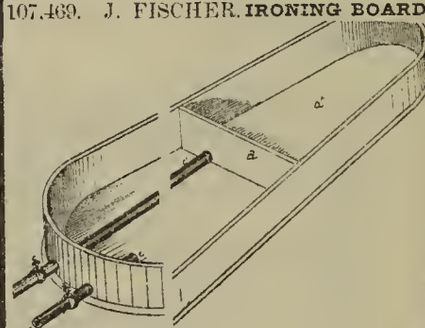
107,467 C. R. EDWARDS SEED PLANTER



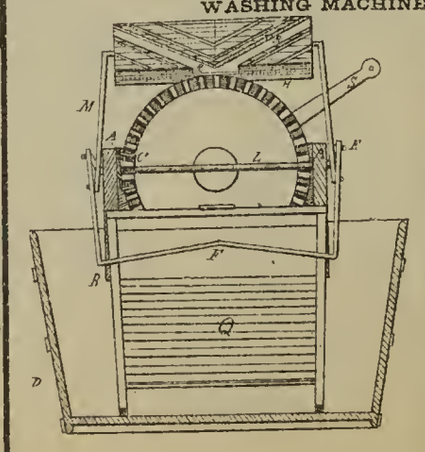
107,468. W. FERGUSON AND J. ANDERSON MOLDING SASH WEIGHT



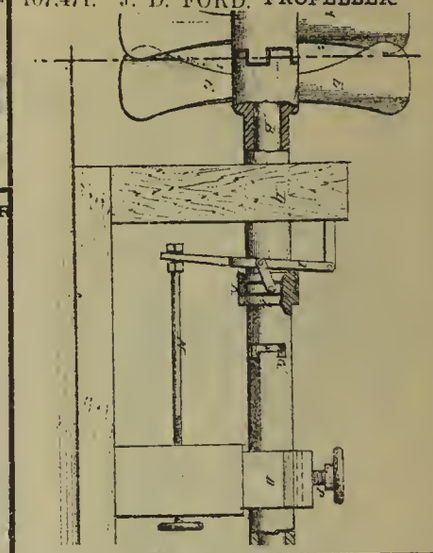
107,469. J. FISCHER. IRONING BOARD.



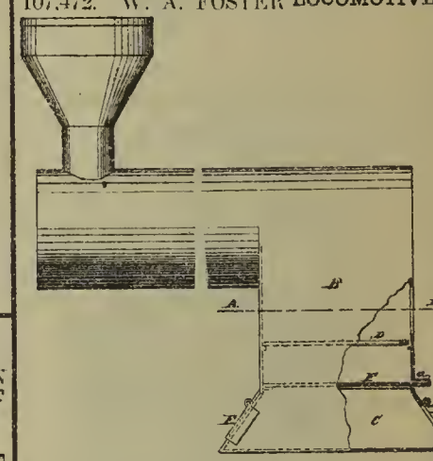
107,470 C. FORD AND F. C. GARBUTT WASHING MACHINE.



107,471. J. D. FORD. PROPELLER.

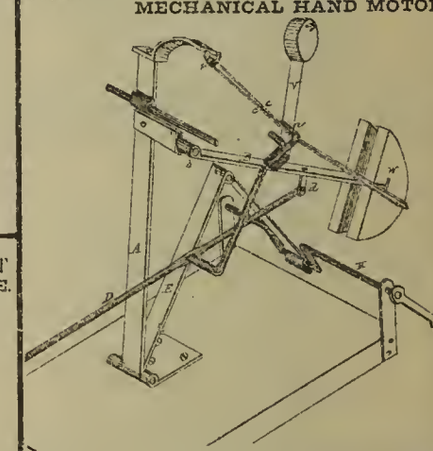


107,472. W. A. FOSTER LOCOMOTIVE.

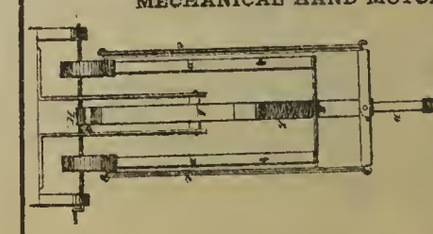


107,473. V. FOUNTAIN, JR. BUNG.

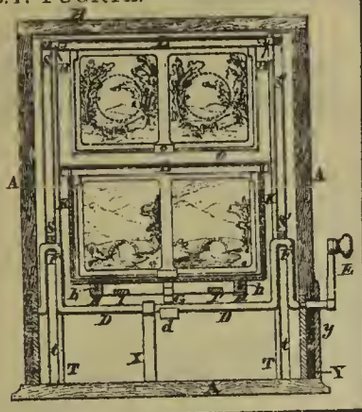
107,474. H. FOWLER. MECHANICAL HAND MOTOR.



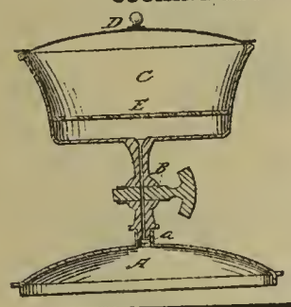
107,475. H. FOWLER MECHANICAL HAND MOTOR.



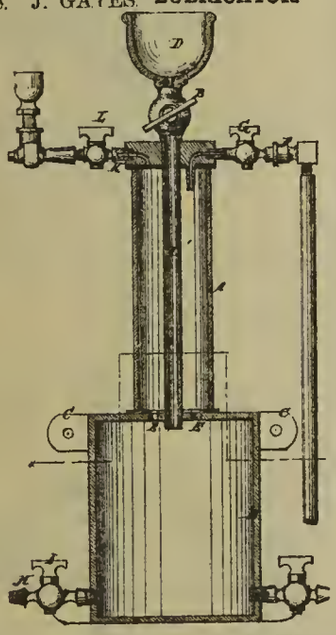
107,476. T. FUGATE. BOX STEREOSCOPE.



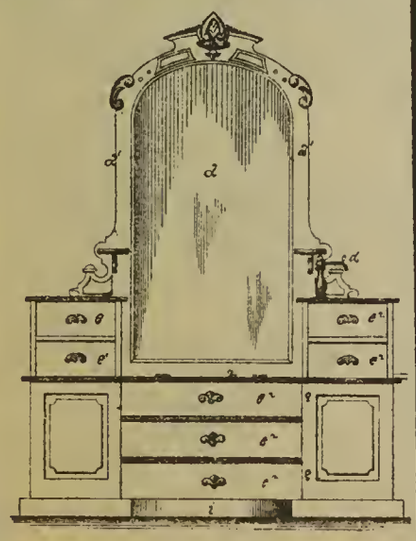
107,477. J. GALLAGHER. COOKING APPARATUS.



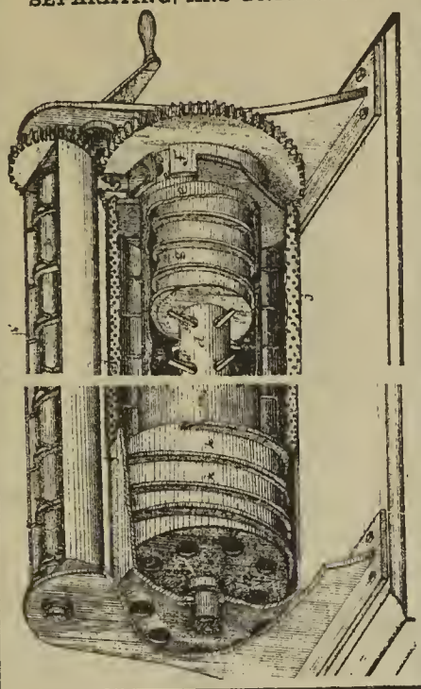
107,478. J. GATES. LUBRICATOR.



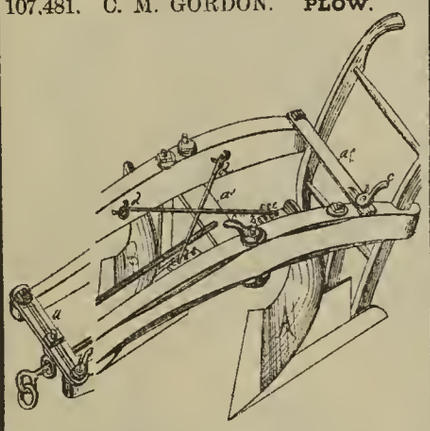
107,479. J. E. GILMAN COMBINED DRESSING BUREAU AND BATH TUB.



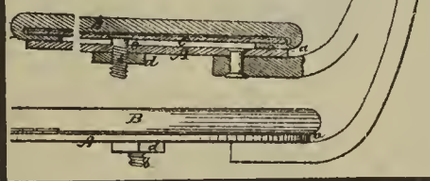
107,480. A. J. GLAS. APPARATUS FOR DECORTICATING SEPARATING, AND DRYING GRAIN.



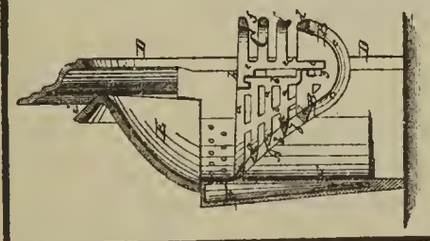
107,481. C. M. GORDON. PLOW.



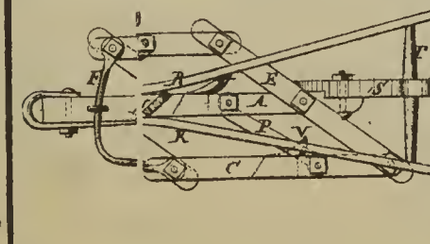
107,482. C. H. GOULD. SHIELD FOR CARRIAGE STEPS.



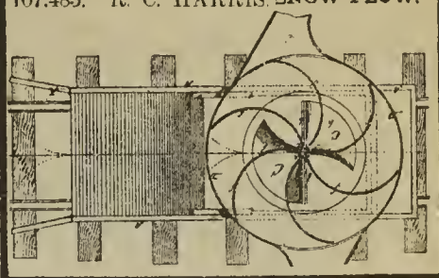
107,483. J. HACKETT. FIRE PLACEGRATE.



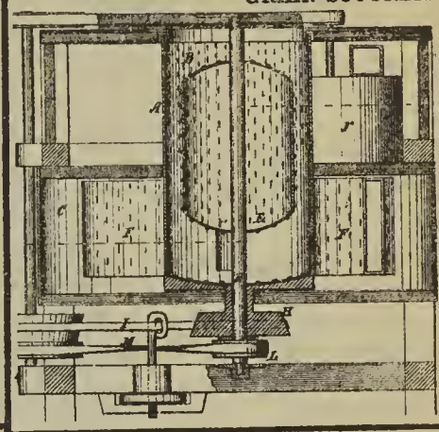
107,484. J. H. HAMILTON. CULTIVATOR.



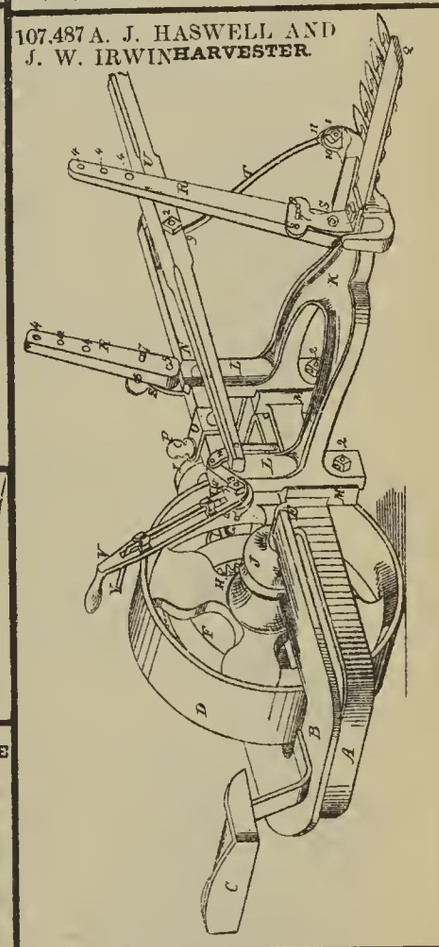
107,485. R. C. HARRIS. SNOW PLOW.



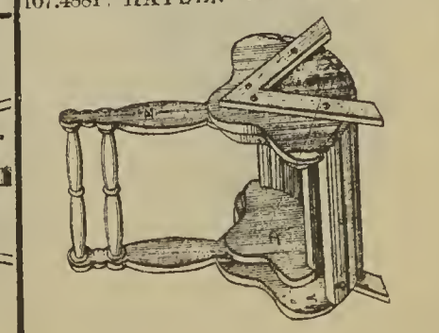
107,486. I. N. HARSHBARGER. GRAIN SCOURER.



107,487. A. J. HASWELL AND J. W. IRWIN. HARVESTER.



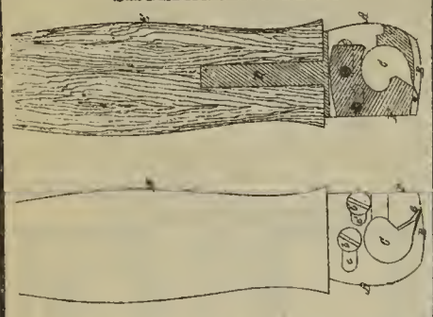
107,488. P. HAYDEN. WASHING MACHINE.



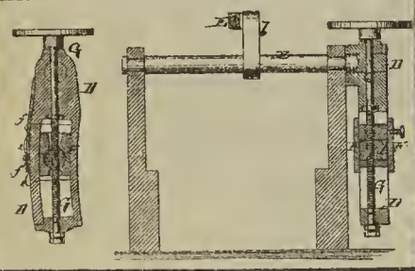
107,489. J. R. HAYES
COMPOSITION FOR PAVEMENTS.

107,490. J. R. HAYES. PREPARATION OF COMPOSITION FOR PAVEMENTS.

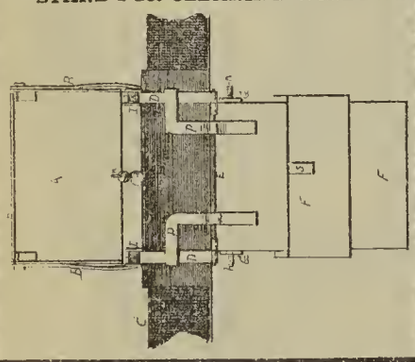
107,491. A. P. HAZARD
SHOEMAKER'S EDGE PLANE.



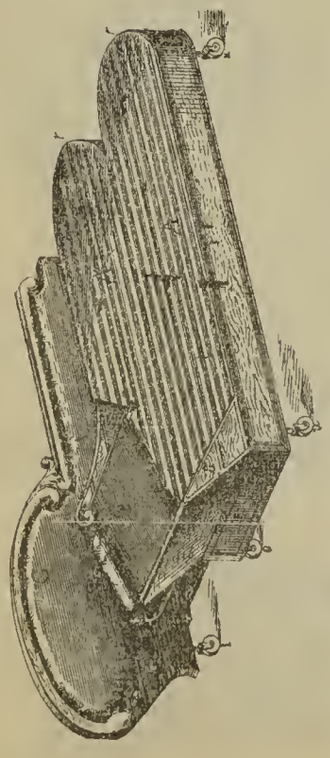
107,492 H. HENDRICKSON ADJUSTABLE ARM FOR WORKING SLIDE VALVES.



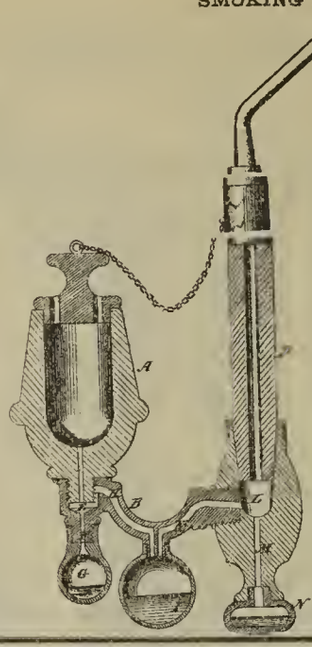
107,493. E. HERBSTER
STAND FOR CLEANING WINDOWS.



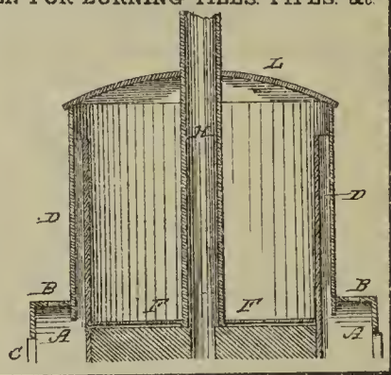
107,494 N. H. HILL EXTENSION LOUNGE



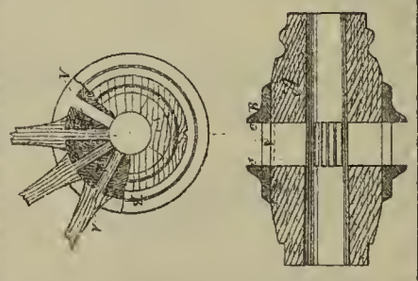
107,495. C. F. HITSELBERGER
SMOKING PIPE.



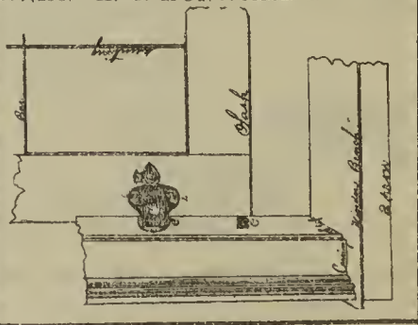
107,496. J. HORNSBY
KILN FOR BURNING TILES, PIPES, &c.



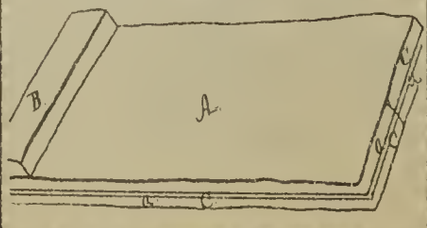
107,497. J. B. HUBBELL WAGON HUB.



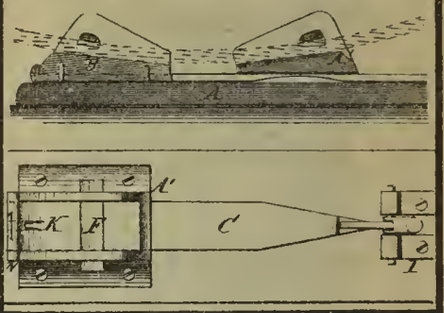
107,498. H. C. HUNT. SASH HOLDER.



107,499. J. HUNT
LIFE PRESERVING MATTRESS

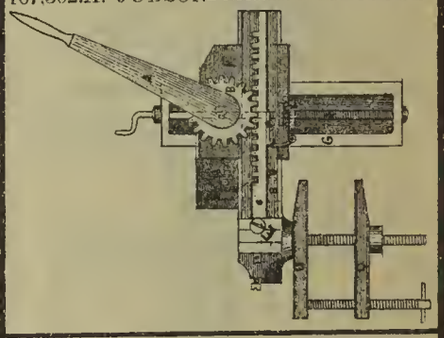


107,500. W. HUNT.
COMPOUND MACHINE FOR UPSETTING PUNCHING, AND CUTTING METAL.

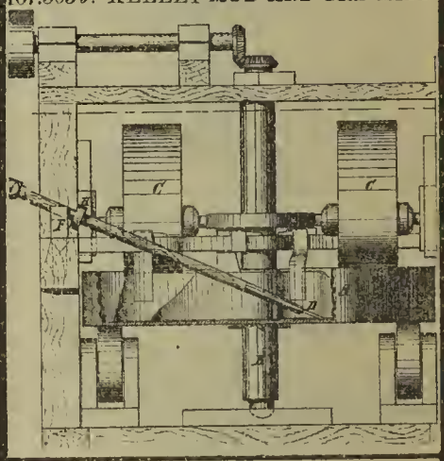


107,501. W. A. IRELAND
DEVICE FOR OPERATING HAND FAN.

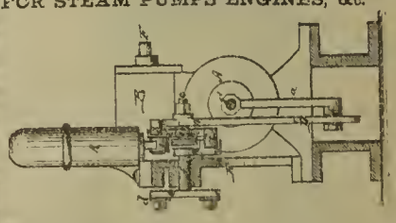
107,502. A. JUDSON PLANING MACHINE



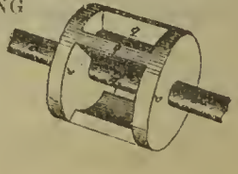
107,503 J. KELLET MUD AND ORE MILL



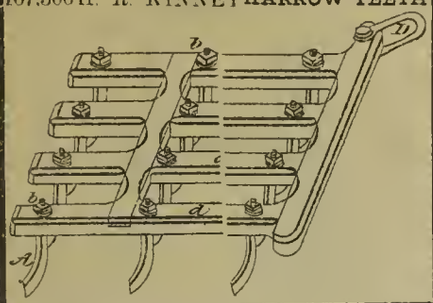
107,504. J. C. KING. VALVE GEAR FOR STEAM PUMPS ENGINES, &c.



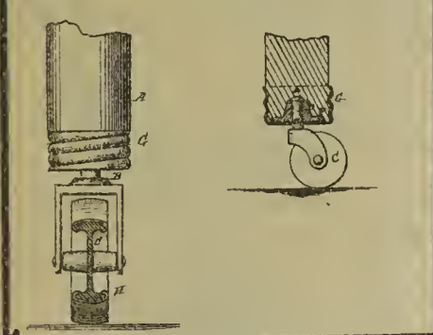
107,505 BALANCED ROCK VALVE.
J. C. KING



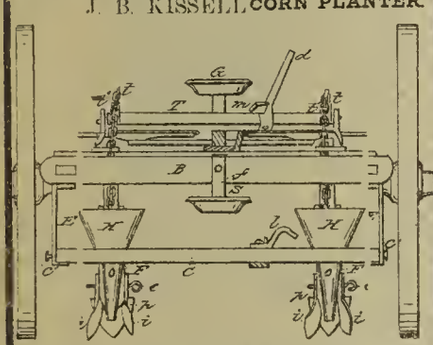
107,506 H. R. KINNEY HARROW TEETH



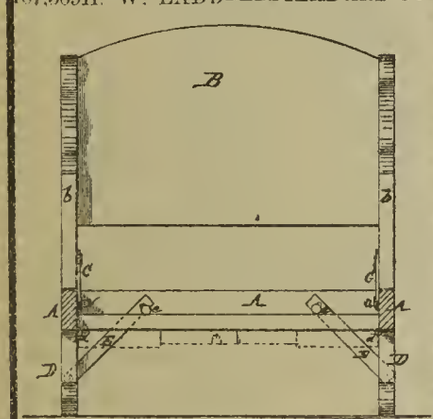
107,507. J. KINTZ. CASTER.



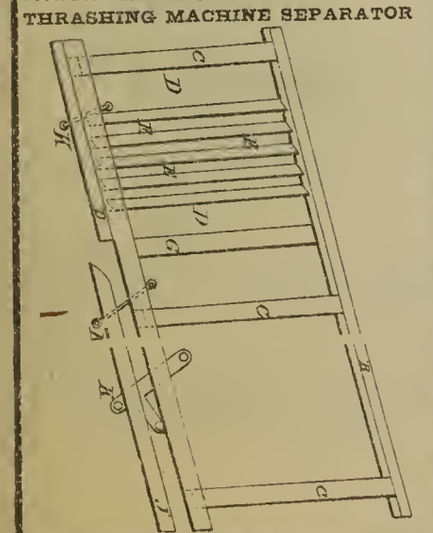
107,508. M. L. KISSELL AND J. B. KISSELL CORN PLANTER.



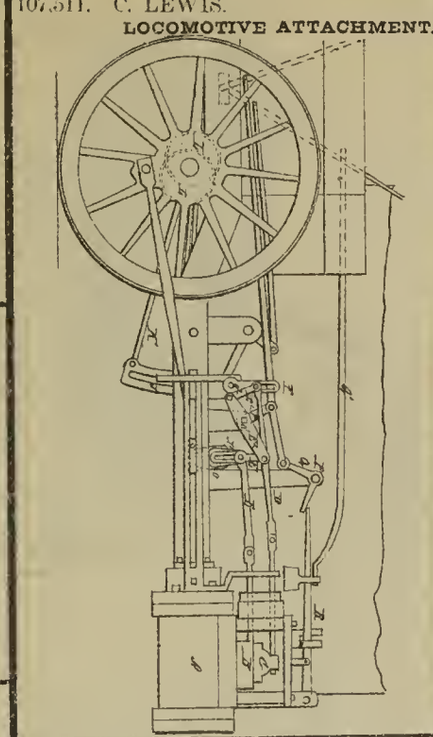
107,509 H. W. LADD BEDSTEAD AND COT



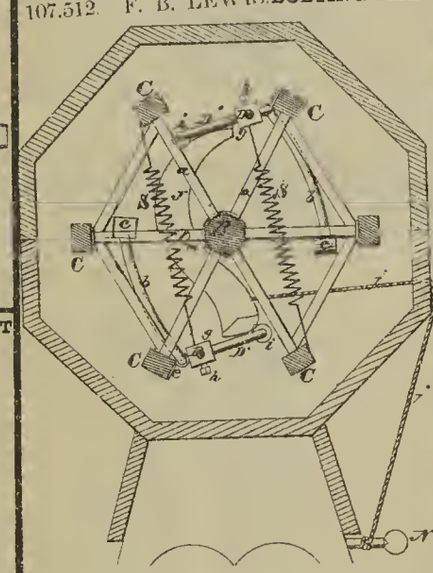
107,510. I. LEBO. THRASHING MACHINE SEPARATOR



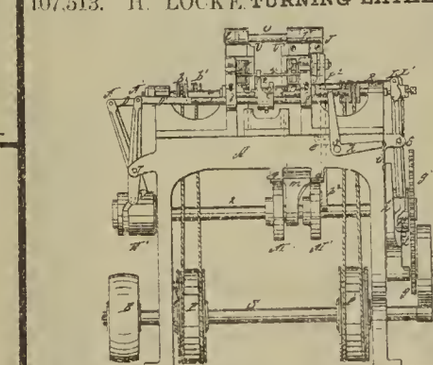
107,511. C. LEWIS. LOCOMOTIVE ATTACHMENT.



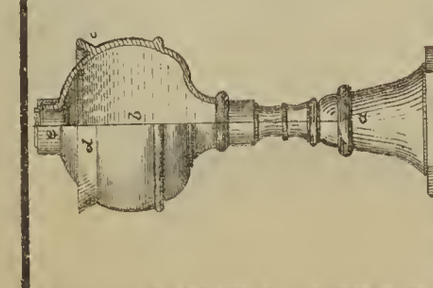
107,512. F. B. LEWIS. BOLTING REEL



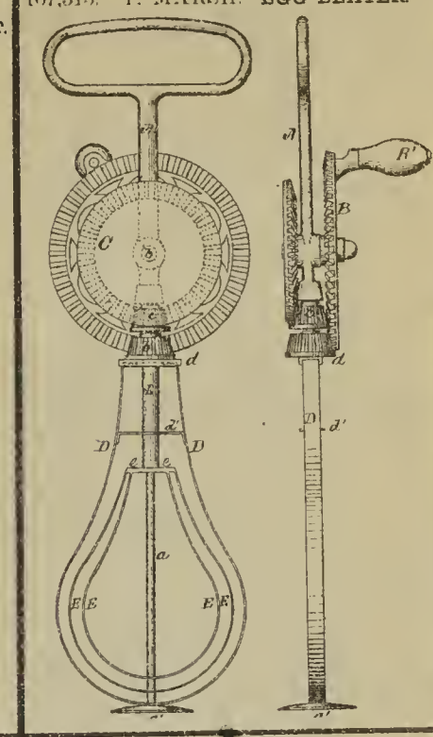
107,513. H. LOCKE. TURNING LATHE



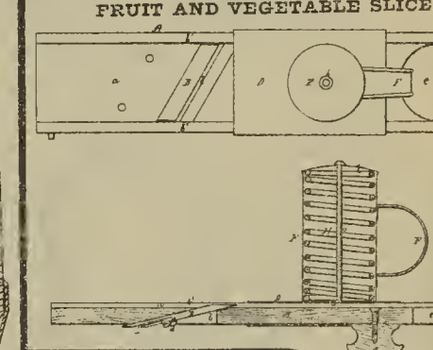
107,514. G. H. LOMAX LAMP.



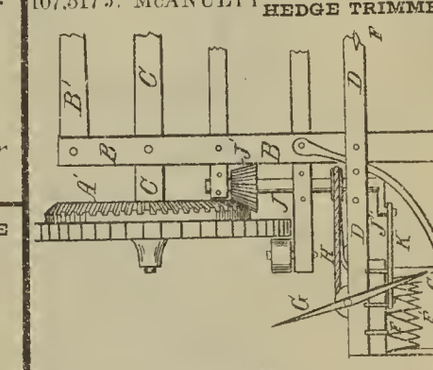
107,515. T. MARSH. EGG BEATER.



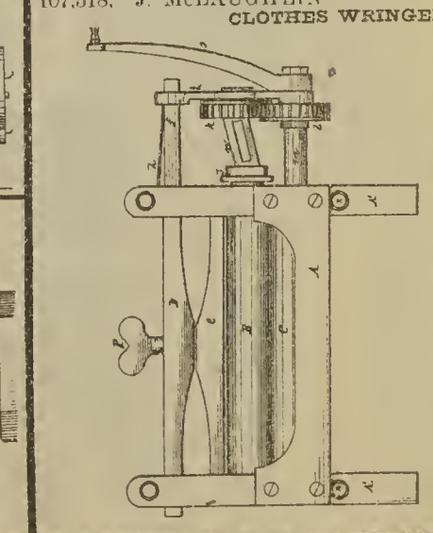
107,516. W. A. MAYHEW FRUIT AND VEGETABLE SLICER.



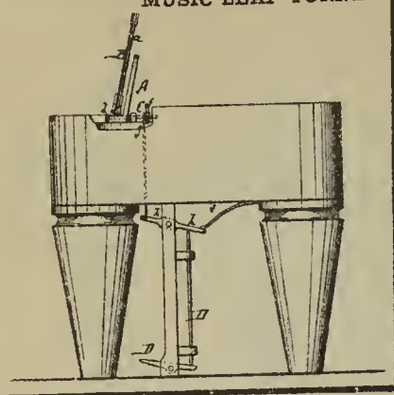
107,517 J. McANULTY HEDGE TRIMMER



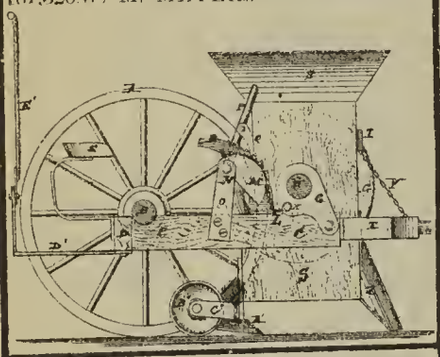
107,518. J. McLAUGHLIN CLOTHES WRINGER.



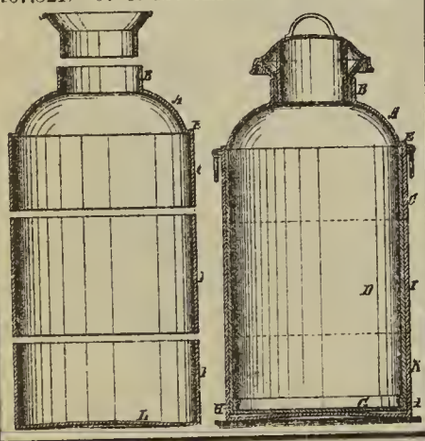
107,519. J. W. MELLOR
MUSIC LEAF TURNER.



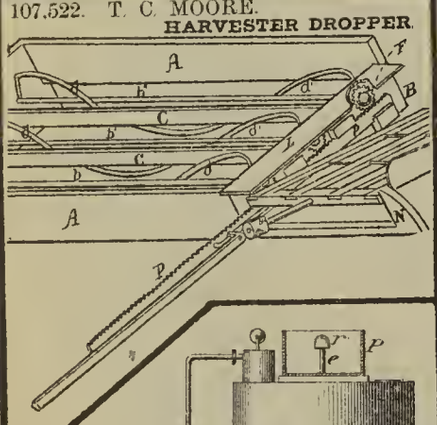
107,520 W. M. MEYERS CORN PLANTER



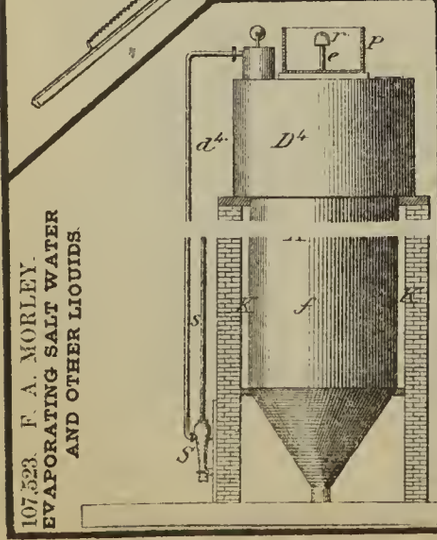
107,521. J. C. MILLIGAN MILK CAN.



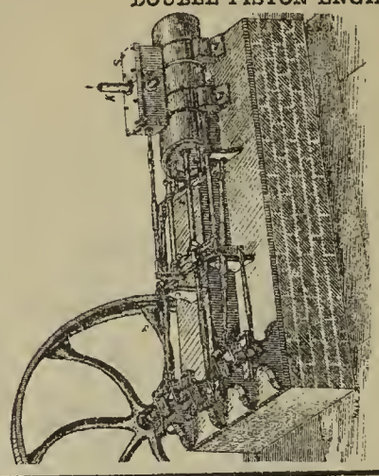
107,522. T. C. MOORE.
HARVESTER DROPPER.



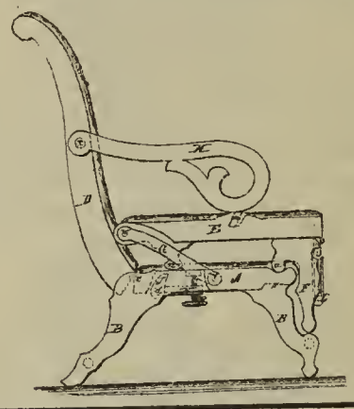
107,523. F. A. MORLEY.
EVAPORATING SALT WATER AND OTHER LIQUIDS.



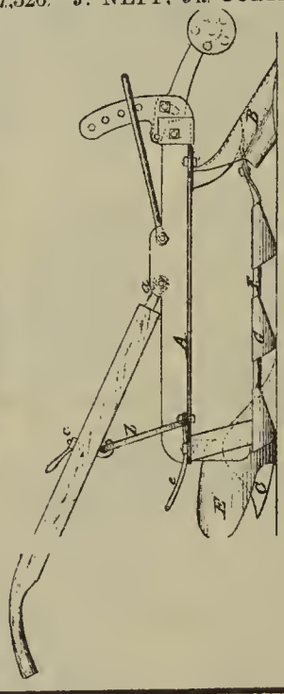
107,524. A. W. MORRELL
DOUBLE PISTON ENGINE



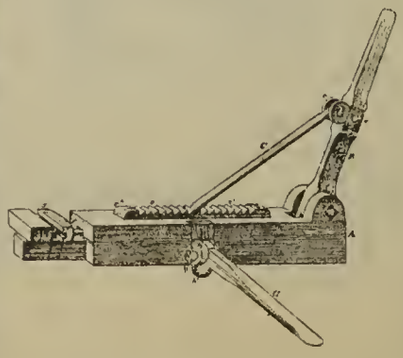
107,525. W. MORSTATT AND F. KIPS.
FOLDING CHAIR.



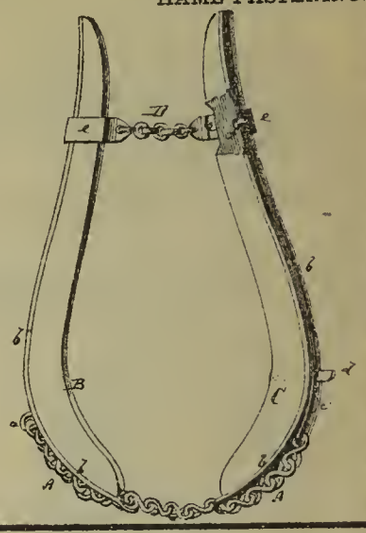
107,526. J. NEFF, JR. CULTIVATOR.



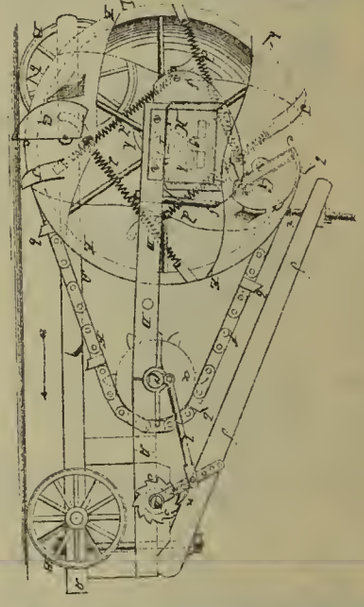
107,527. D. NETTLETON FLOOR CLAMP.



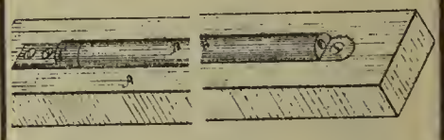
107,528 S. D. G. NILES
HAME FASTENING.



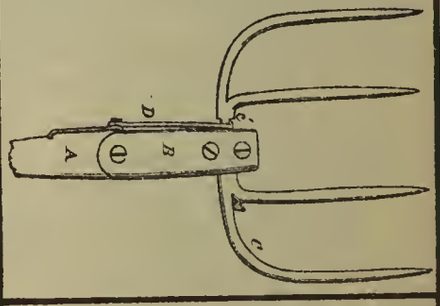
107,529 R. R. OSGOOD
DITCHING MACHINE.



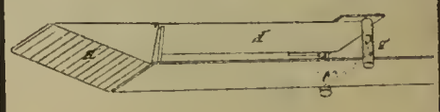
107,530 E. PARKER
TRACK RAIL FOR SLIDING DOORS.



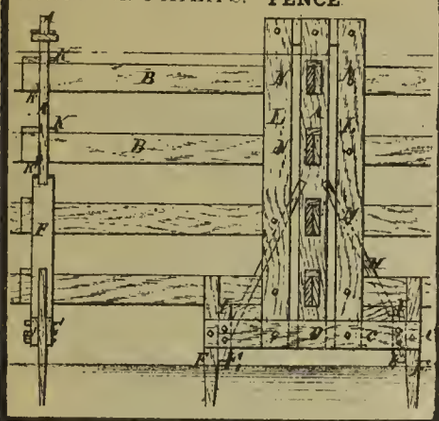
107,531. T. W. PEIRCE.
HAY FORK AND HOOK.



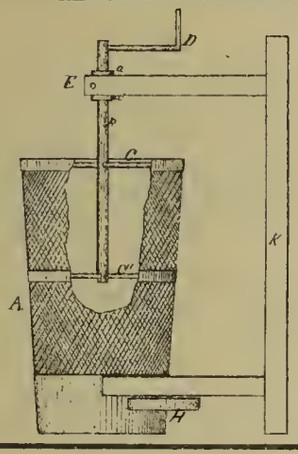
107,532. L. V. PERCIVAL AND J. LINK
ANIMAL TRAP.



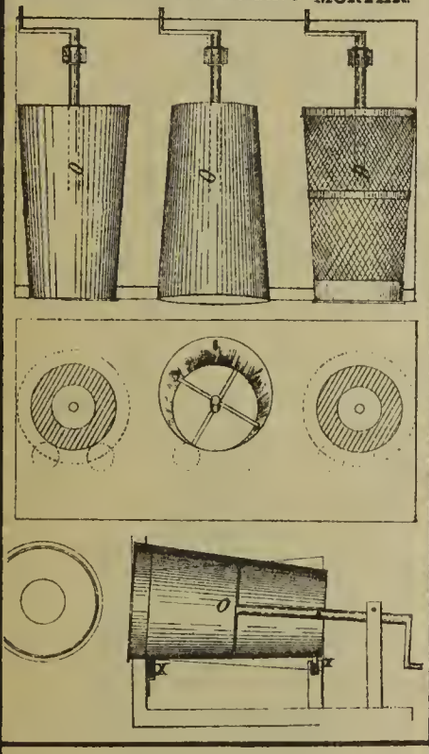
107,533. L. PHILIPS. FENCE.



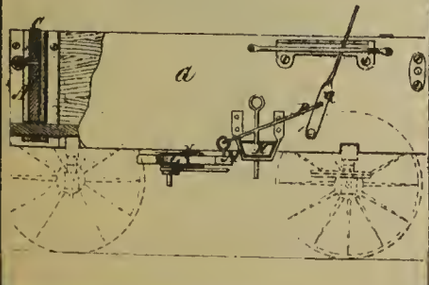
107,534 L. B. PITCHER MANNER OF MOUNTING HOLLOW REVOLVING CYLINDERS.



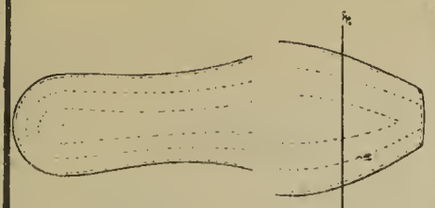
107,535 L. B. PITCHER PROCESS AND MACHINERY FOR MAKING MORTAR.



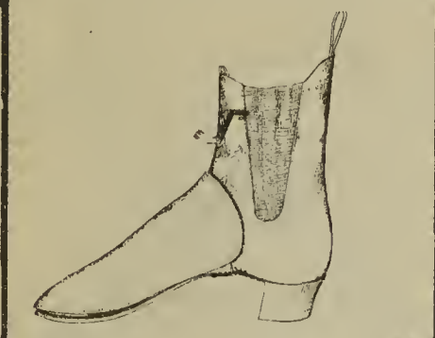
107,536. W. H. PORTER WAGON BED.



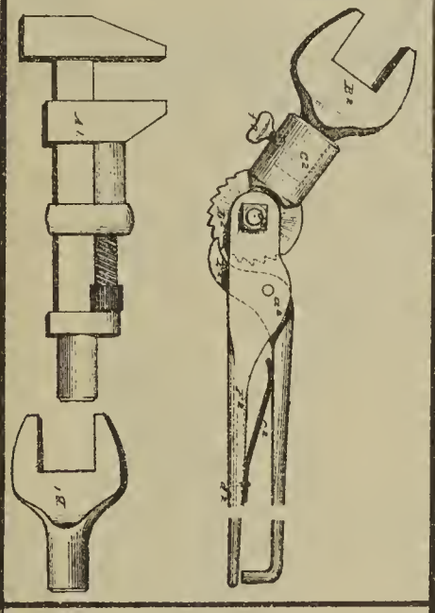
107,537. W. E. PRALL. INSIDE SOLE FOR BOOTS AND SHOES.



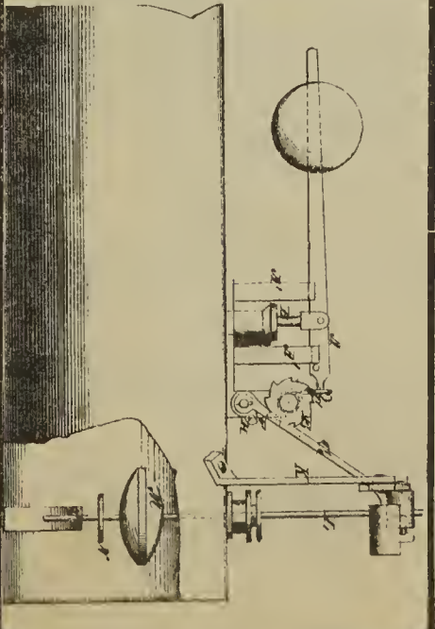
107,538. W. E. PRALL. COVER FOR BOOTS AND SHOES.



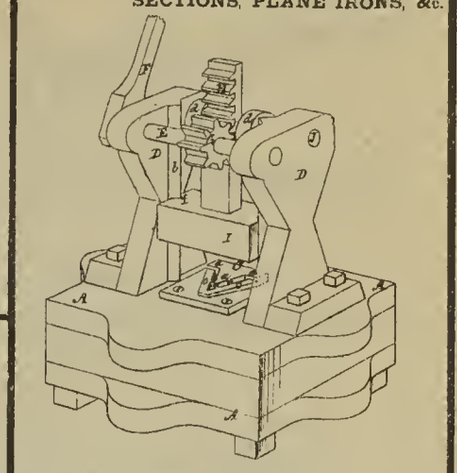
107,539. F. P. RAND. WRENCH.



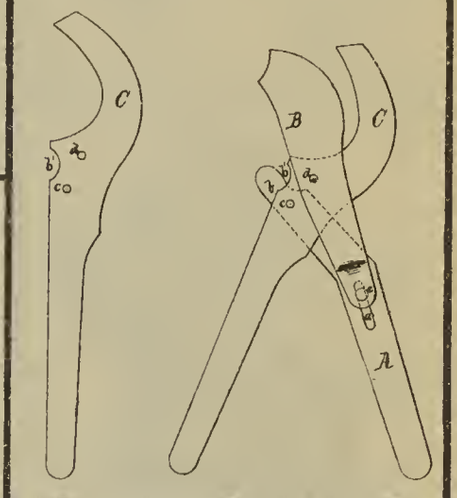
107,540. W. R. REECE. SAFETY VALVE.



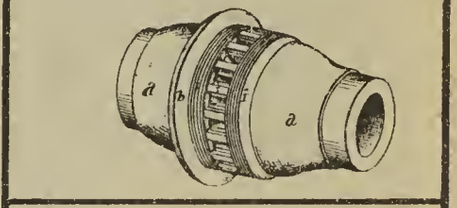
107,541. S. F. REYNOLDS MACHINE FOR TEMPERING SICKLE SECTIONS, PLANE IRONS, &c.



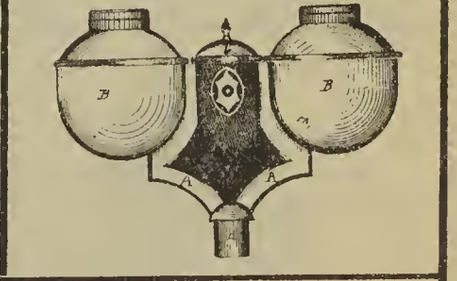
107,542. W. RICHARD PRUNING KNIFE.



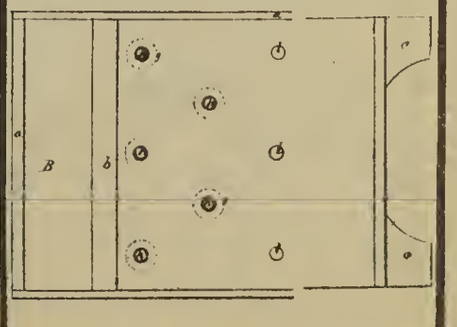
107,543. J. RIDGE CARRIAGE WHEEL.



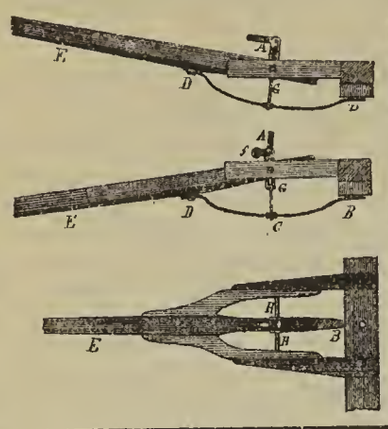
107,544. D. C. RIPLEY. GLASS LAMP.



107,545. C. ROBINSON ALLEY BOARD FOR BALL GAMES.

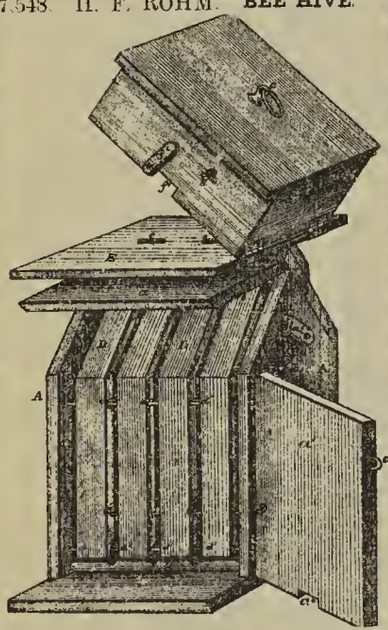


107,546. D. D. ROBINSON. WAGON TONGUE SUPPORT

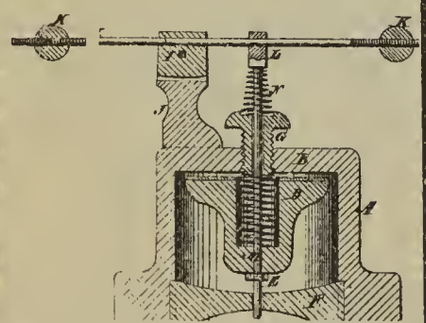


107,547. A. H. ROCKWELL. CHECK REIN CONNECTOR

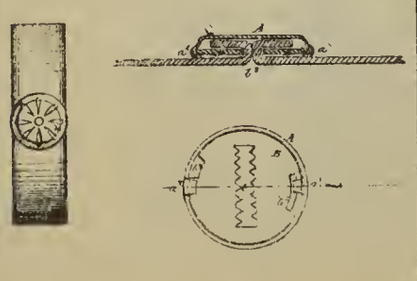
107,548. H. F. ROHM. BEE HIVE.



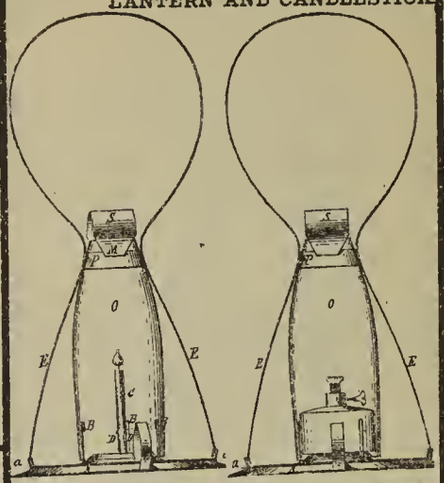
107,549. T. P. SANBORN ORGAN TREMULANT



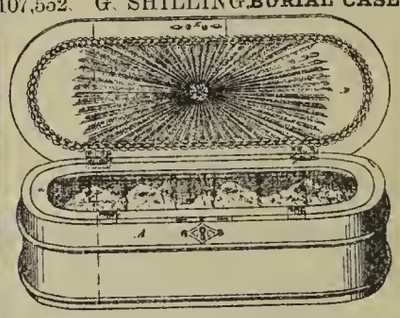
107,550. A. SCHEYDECKER. CLASP FOR ELASTIC BANDS



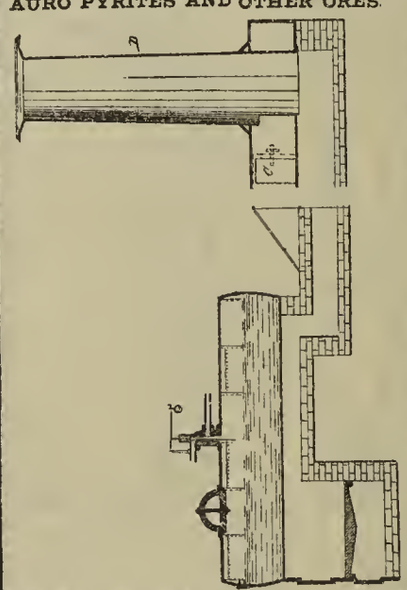
107,551. M. A. SHEPARD COMBINED LANTERN AND CANDLESTICK.



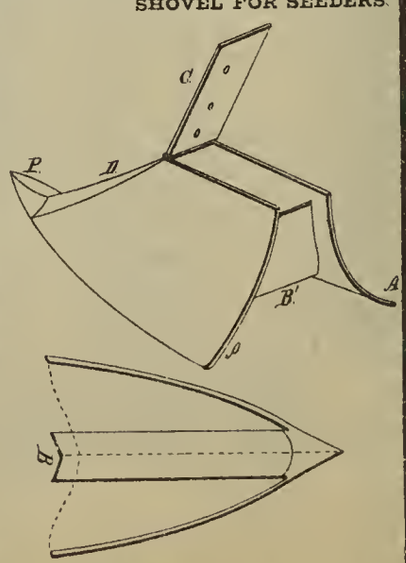
107,552. G. SHILLING. BURIAL CASE.



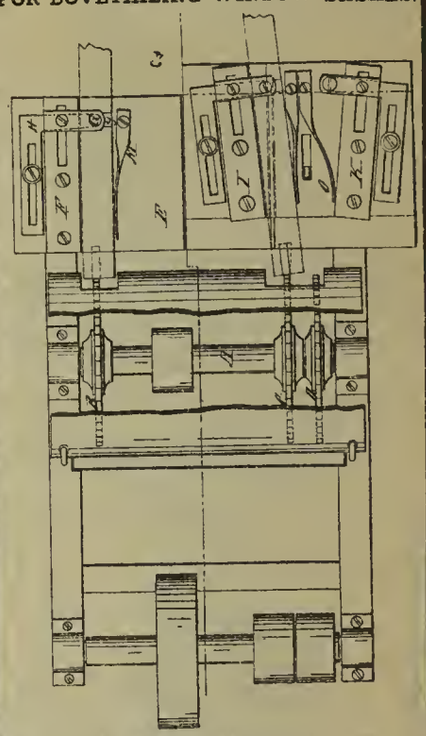
107,553. L. SIBERT. DESULPHURIZING AURO PYRITES AND OTHER ORES.



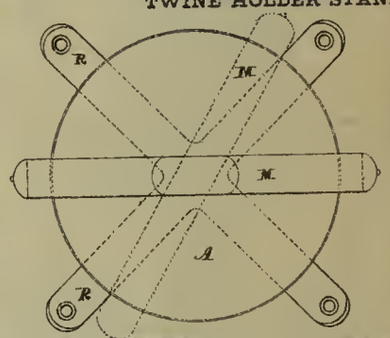
107,554. D. SLAUGHTER SHOVEL FOR SEEDERS.



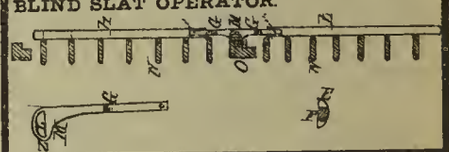
107,555. DE W. C. SMITH. MACHINE FOR DOVETAILING WINDOW SASHES.



107,556 J. S. SMITH TWINE HOLDER STAND

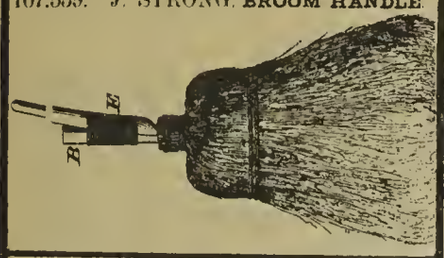


107,557. J. B. SMITH, S. A. GREELY AND A. CAMPAIGNE. BLIND SLAT OPERATOR.

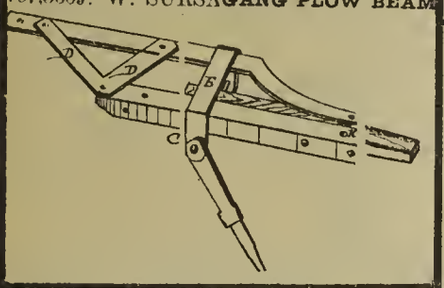


107,558. C. L. STEELE. FLOWER POT.

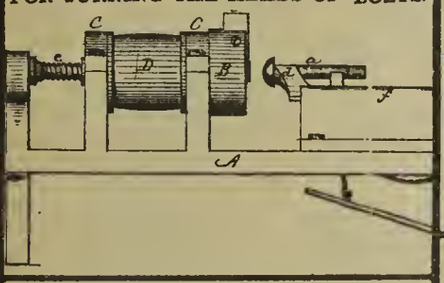
107,559. J. STRONG. BROOM HANDLE.



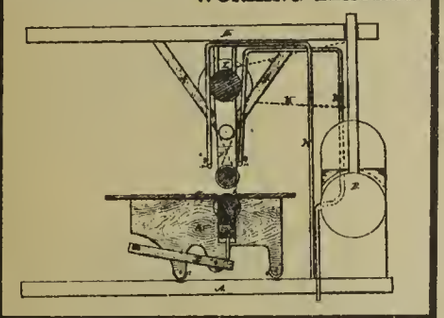
107,560 J. W. SURSA GANG PLOW BEAM.



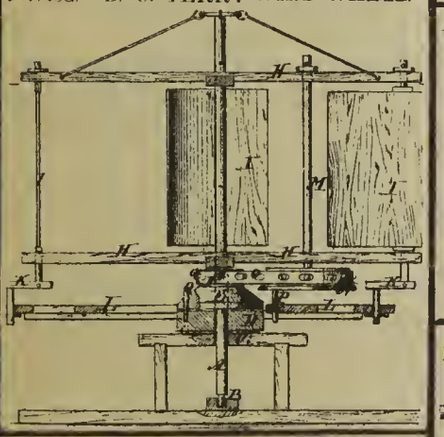
107,561. W. F. SWATHEL MACHINE FOR TURNING THE HEADS OF BOLTS.



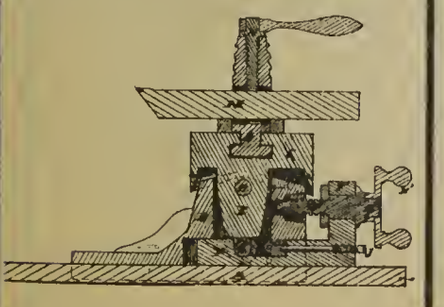
107,562 E. D. TAYLOR AND W. RUDE MACHINE FOR BREAKING HIDES AND WORKING LEATHER.



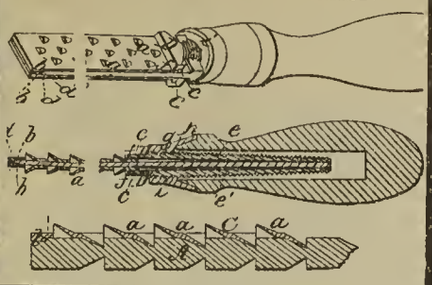
107,563. B. C. TERRY WIND WHEEL.



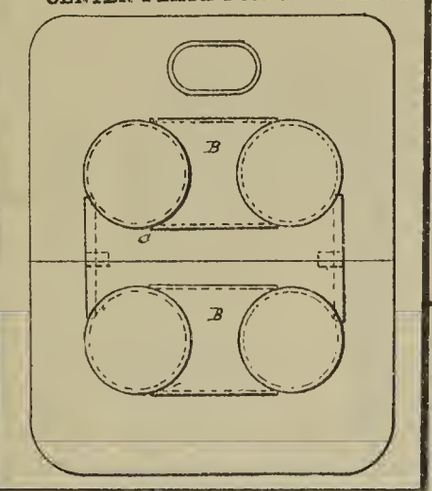
107,564. A. THOMAS. TOOL REST.



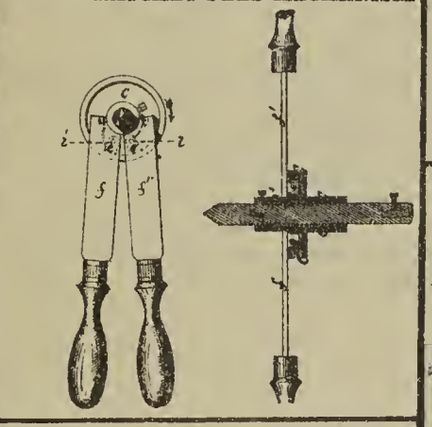
107,565. I. F. THOMPSON. RASP.



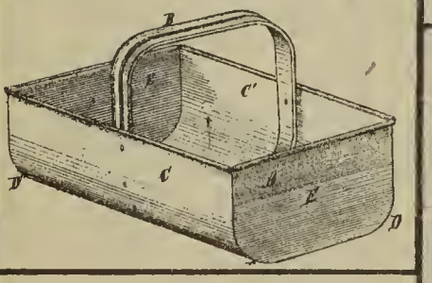
107,566. J. THORNILEY CENTER PLATE FOR STOVE TOPS.



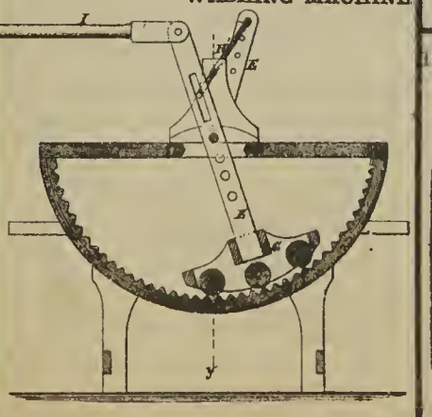
107,567. A. TURNBULL RATCHET FEED MECHANISM.



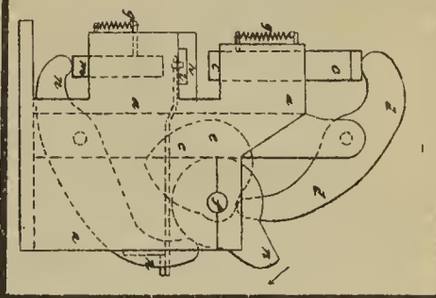
107,568. S. S. VAIL. WOOD BUCKET.



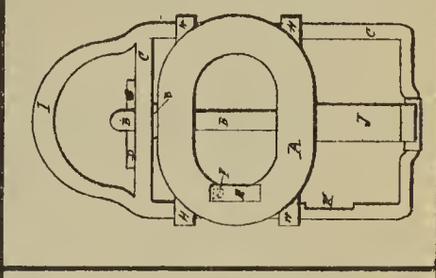
107,569. A. L. VAN NORMAN. WASHING MACHINE.



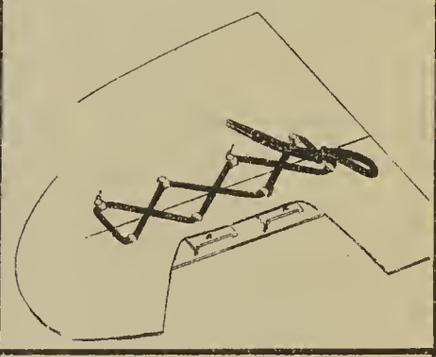
107,570. C. VOLKERT. BUTTON MACHINE.



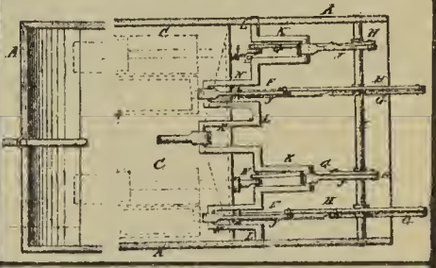
107,571 W. WALKER. CAR COUPLING.



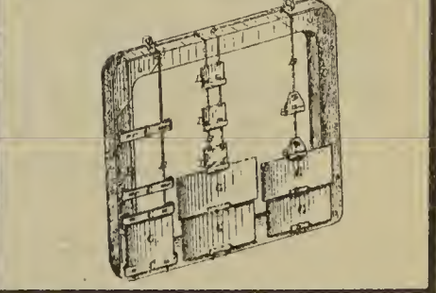
107,572 W. P. WARE. SHOE FASTENING.



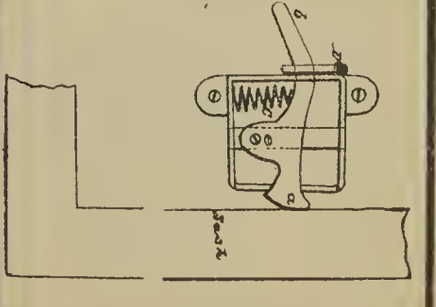
107,573. E. K. WATSON PROPELLING CANAL BOATS.



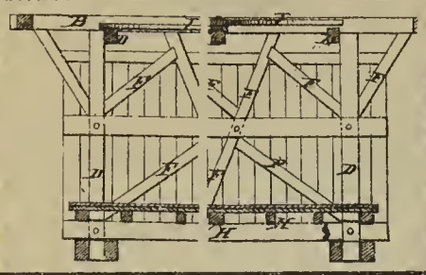
107,574. W. WENDELL. CARD RACK.



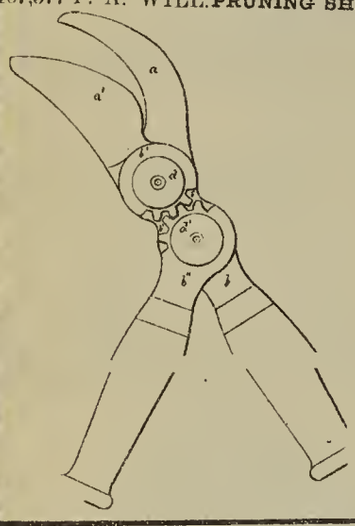
107,575 G. W. WHEAT. SASH HOLDER.



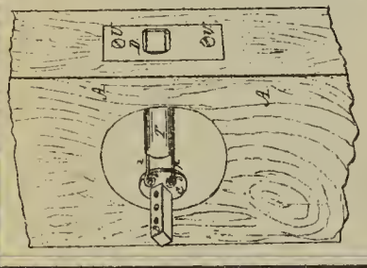
107,576. I. H. WHEELER. BRIDGE.



107,577 F. A. WILL. PRUNING SHEARS

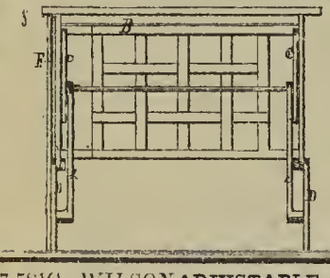


107,578 J. T. WILLIAMS. KNOB LATCH.



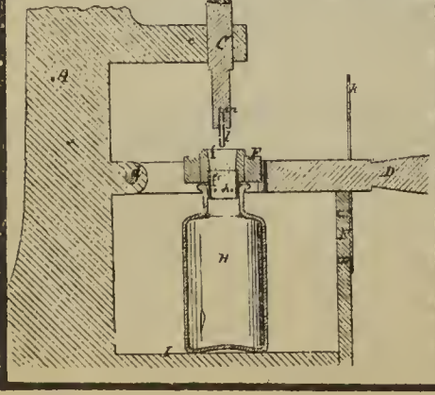
107,579 T. D. WILLIAMS COMPOUND FOR STUFFING AND FINISHING LEATHER.

107,580 G. WILSON BEDSTEAD AND TABLE

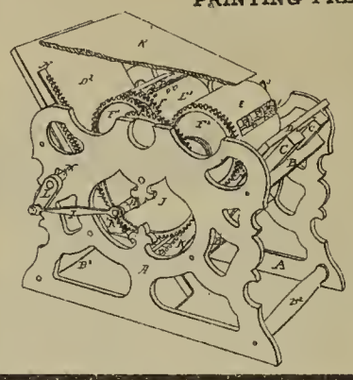


107,581 G. WILSON ADJUSTABLE CHAIR

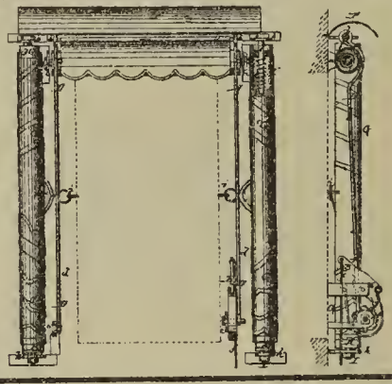
107,582 J. WOLFF AND W. N. NUMSEN BOTTLE CORKING MACHINE



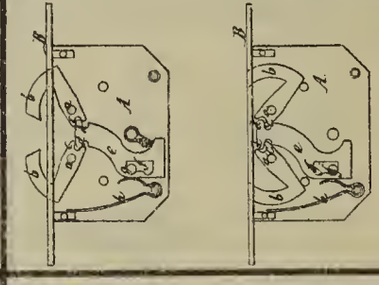
107,583. C. D. WRIGHTENGTON PRINTING PRESS.



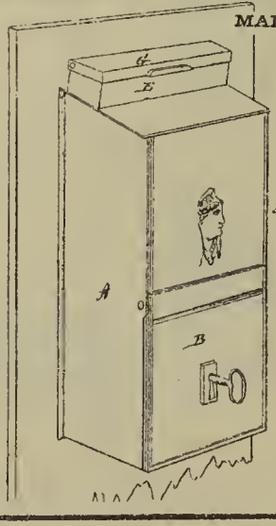
107,584. L. YENNE AND C. SCHNEIDER ADJUSTABLE AWNING



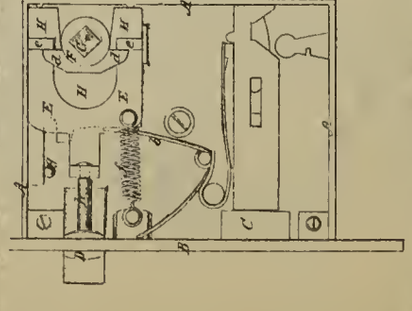
107,585 H. AHREND LOCK FOR PIANOS, &c



107,586. A. W. ALLEN AND C. REITZ. MAIL BOX.

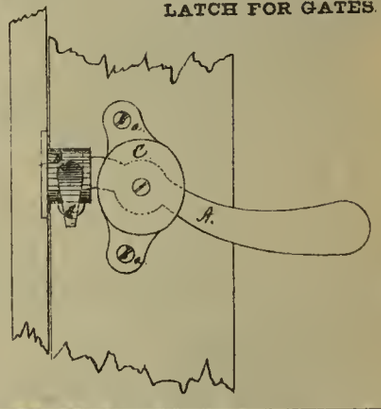


107,587. H. P. APPLETON REVERSIBLE KNOB LATCH

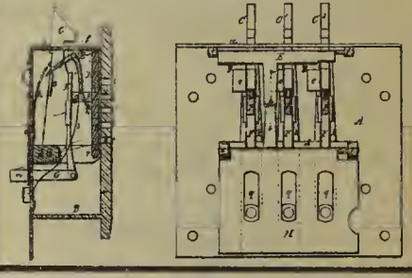


107,588. J. BARCLAY. BRACELET.

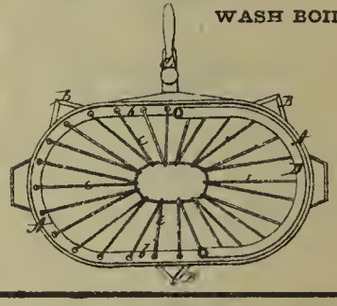
107,589 E. BARKS AND L. H. EMMONS LATCH FOR GATES.



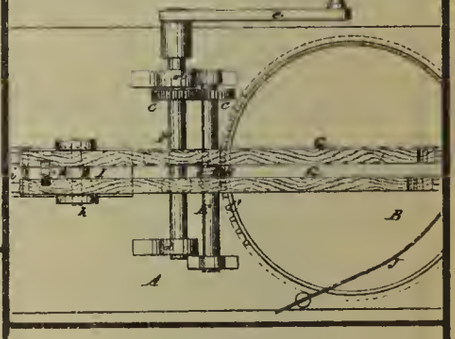
107,590. J. E. AND L. P. BARNES PERMUTATION LOCK.



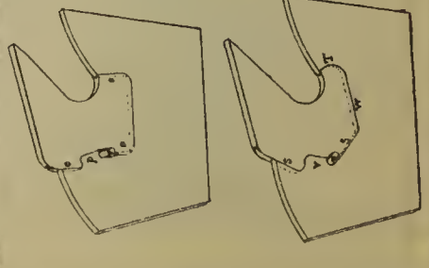
107,591. J. W. AND M. A. BATES WASH BOILER.



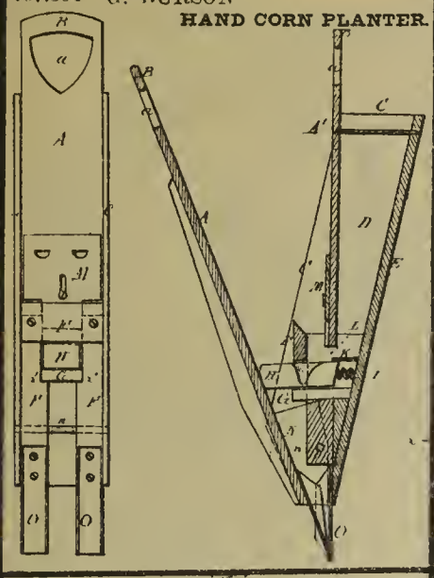
107,592 P. BONFILS AND J. GROSSMAN MEAT AND VEGETABLE CUTTER.



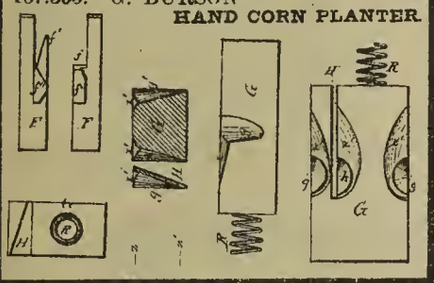
107,593. W. E. BROOKE. SAW.



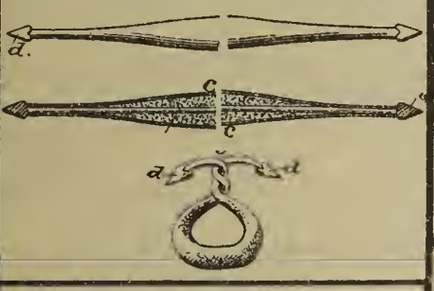
107,594 G. BURSON
HAND CORN PLANTER.



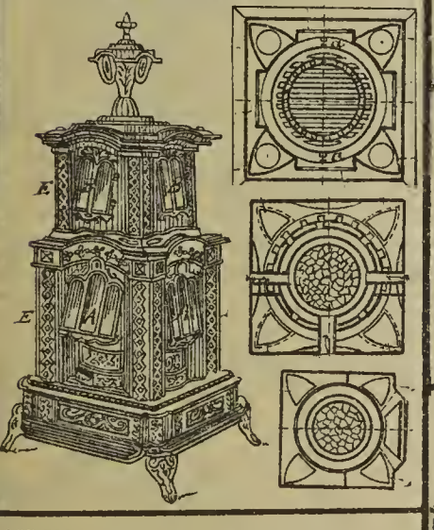
107,595. G. BURSON
HAND CORN PLANTER.



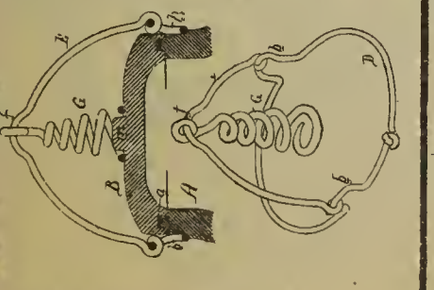
107,596. P. CEREDO. DEVICE
FOR CURLING AND DRESSING HAIR.



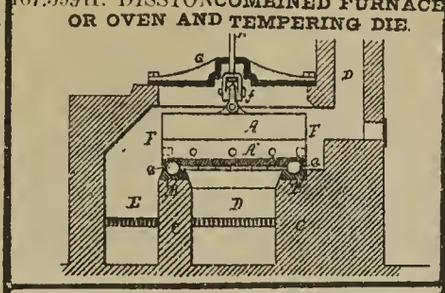
107,597. A. C. CORSE.
BASE BURNING COAL STOVE.



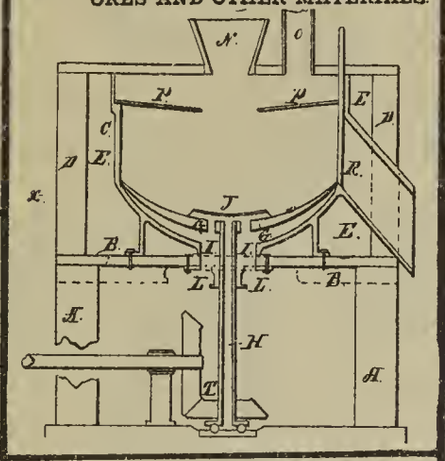
107,598. E. CROFT. FRUIT JAR.



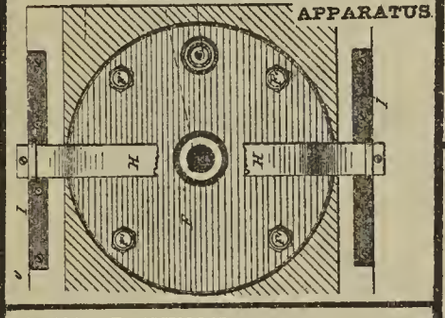
107,599 H. DISSTON COMBINED FURNACE
OR OVEN AND TEMPERING DIE.



107,600. A. DUVALL. APPARATUS
FOR ROASTING AND DRYING
ORES AND OTHER MATERIALS.

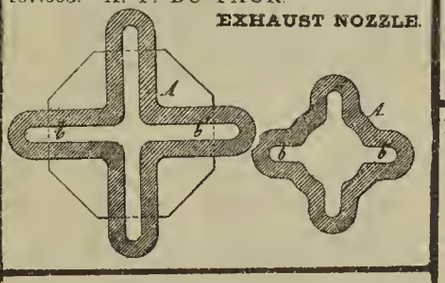


107,601A. J. ELDER ELECTRO
MAGNETIC RAILROAD SIGNAL
APPARATUS.

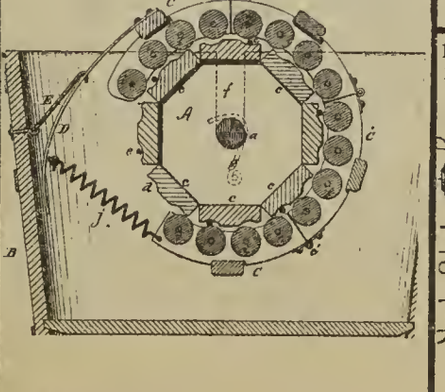


107,602. D. EYNON.
ART OF MANUFACTURING SPIKES.

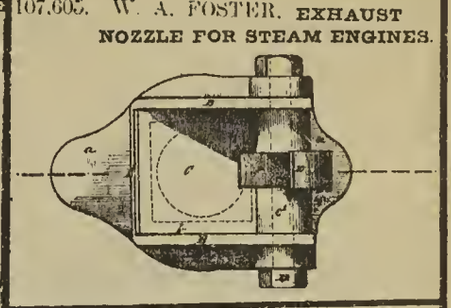
107,603. A. F. DU FAUR.
EXHAUST NOZZLE.



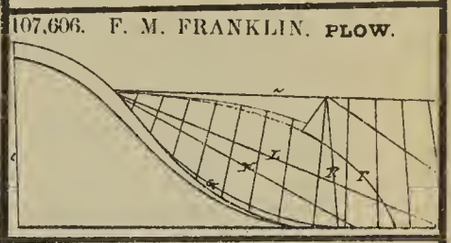
107,604. J. A. FLETCHER
WASHING MACHINE.



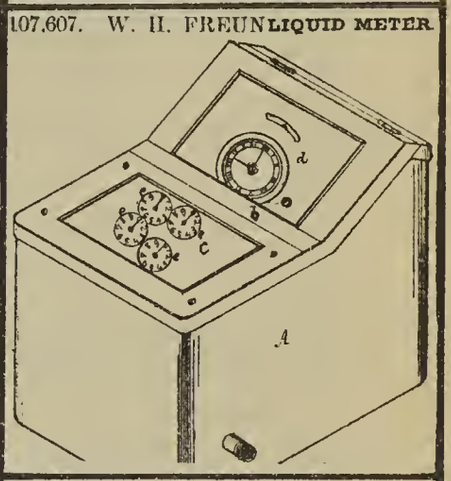
107,605. W. A. FOSTER. EXHAUST
NOZZLE FOR STEAM ENGINES.



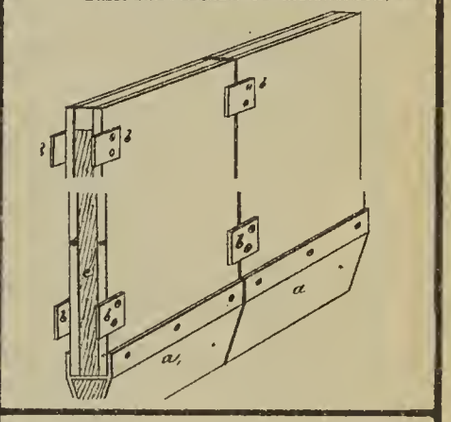
107,606. F. M. FRANKLIN. PLOW.



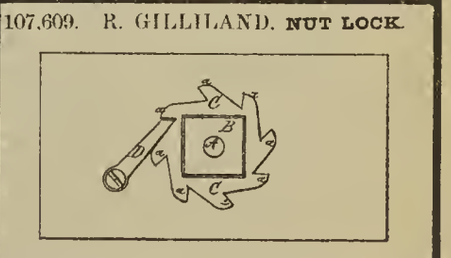
107,607. W. H. FREUN LIQUID METER.



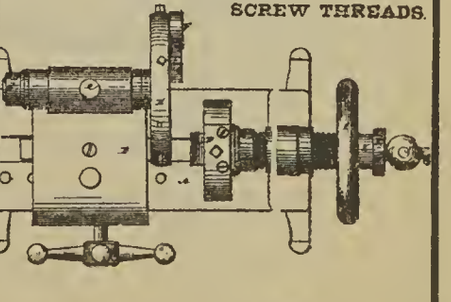
107,608. S. GARDNER. PROTECTING
DIKES AND EMBANKMENTS AGAINST
THE RAVAGES OF ANIMALS, &c.



107,609. R. GILLILAND. NUT LOCK.

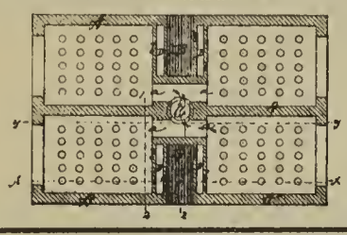


107,610. J. J. GRANT. MACHINE FOR
DRILLING AND CUTTING
SCREW THREADS.

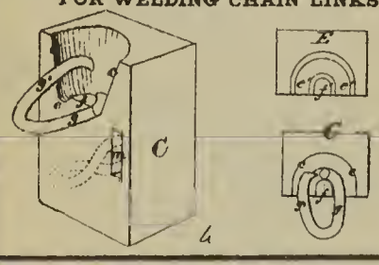


107,611. J. W. HAINES. CHUTE FOR DELIVERING TIMBER.

107,612. B. R. HAWLEY. KILN.

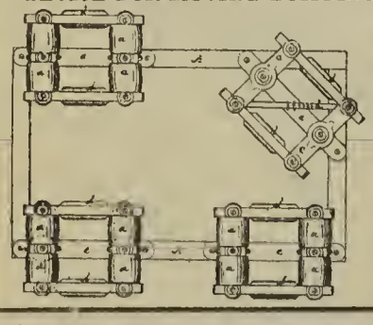


107,613. W. B. HAYDEN. MACHINE FOR WELDING CHAIN LINKS.

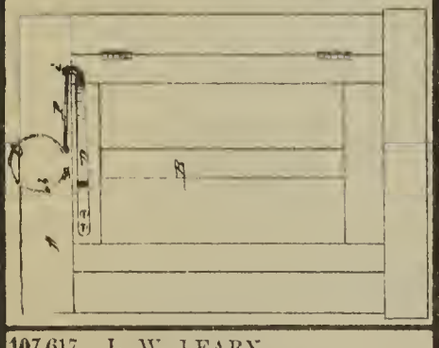


107,614. E. J. HELWIG. FASTENING FOR EPAULETS.

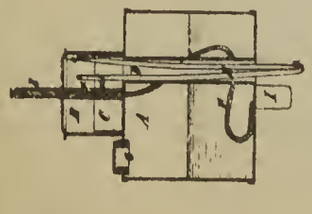
107,615. S. INMAN. DEVICE FOR MOVING BUILDINGS.



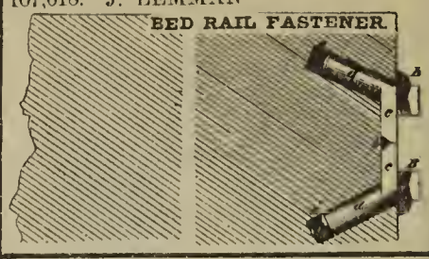
107,616. M. JINCKS. DOOR SPRING.



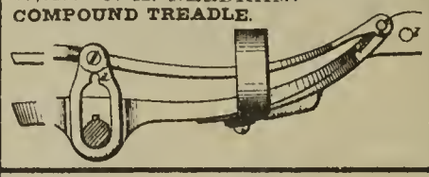
107,617. L. W. LEARY. LAMP WICK REGULATOR.



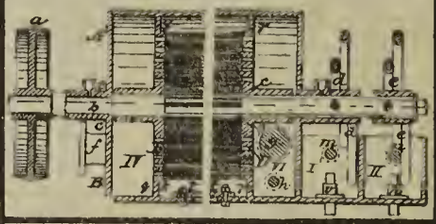
107,618. J. LEMMAN. BED RAIL FASTENER.



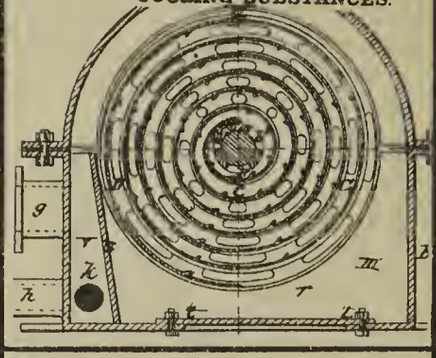
107,619. O. H. NEEDHAM. COMPOUND TREADLE.



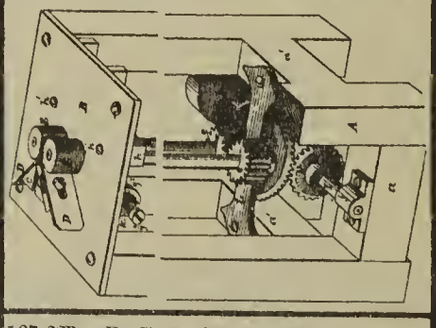
107,620. B. R. NICKERSON. PRESERVING AND HARDENING WOOD.



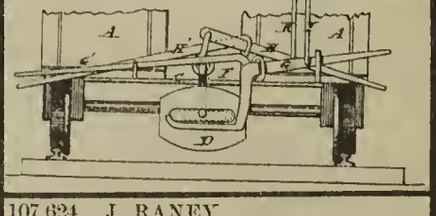
107,621. M. NOLDEN. APPARATUS FOR MIXING, HEATING, AND COOLING SUBSTANCES.



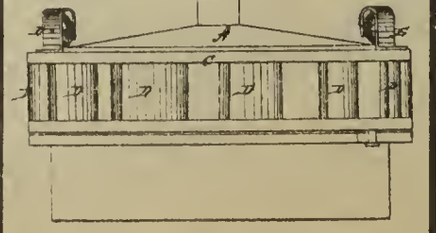
107,622. S. PARKER. HOOP SHAVING MACHINE.



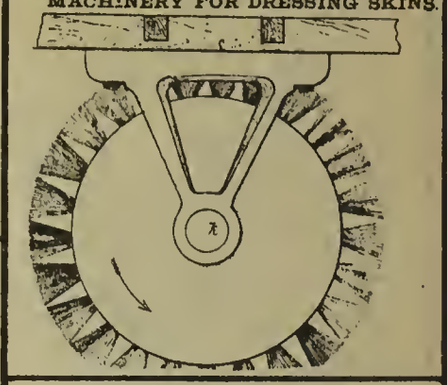
107,623. R. F. RANDOLPH, JR. APPARATUS FOR COUPLING CARS.



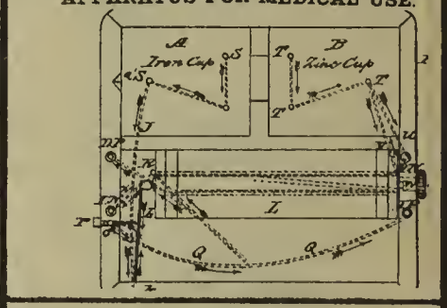
107,624. J. RANEY. WATER WHEEL CASE.



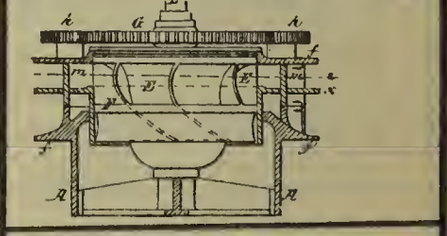
107,625. H. P. REED AND T. E. WILSON. MACHINERY FOR DRESSING SKINS.



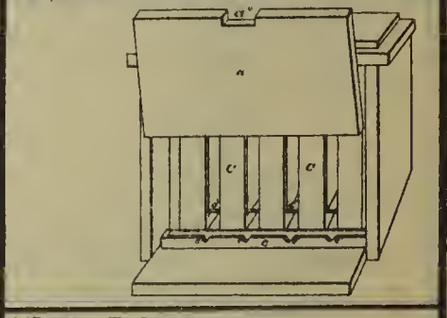
107,626. C. REITZ. ELECTRO MAGNETIC APPARATUS FOR MEDICAL USE.



107,627. T. H. RISDON. WATER WHEEL.

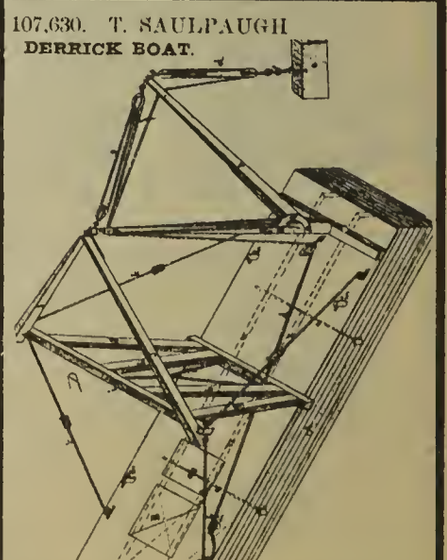


107,628. H. F. ROHM. BEE HIVE.

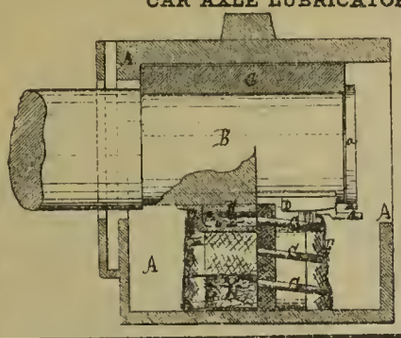


107,629. T. P. ROSSITER. BASE BURNING COOKING STOVE.

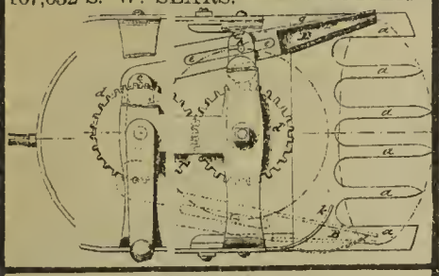
107,630. T. SAULPAUGH. DERRICK BOAT.



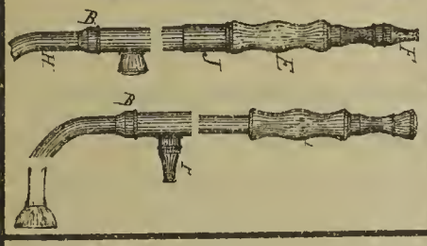
107,631 T. SAYLES
CAR AXLE LUBRICATOR



107,632 S. W. SEARS. GRASS CUTTER.

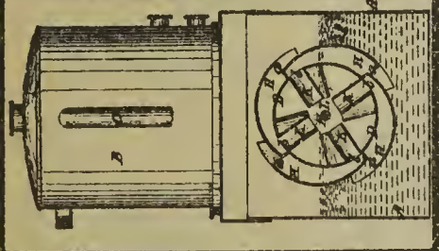


107,633. W. SERVANT.
PORTABLE SPRINKLING PUMP.

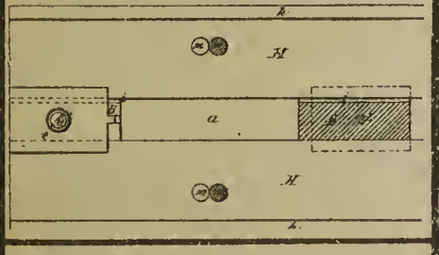


107,634. P. J. SHIRTS.
FASTENING FOR NECKTIES.

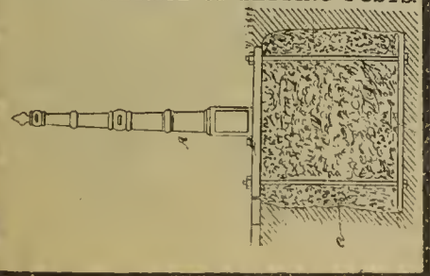
107,635 J. F. SPENCE AND
L. D. TOWSLEY. ROTARY AIR WHEEL
FOR GAS CARBURETERS.



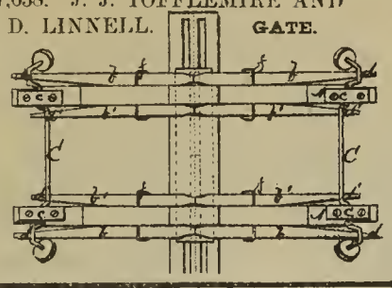
107,636. S. STILWELL.
SLIDE FOR EXTENSION TABLES.



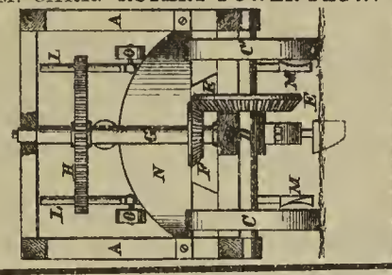
107,637. U. B. STRIBLING.
METHOD OF SETTING POSTS.



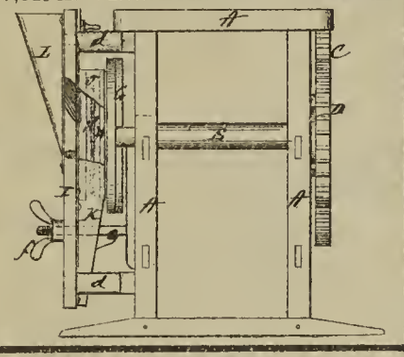
107,638. J. J. TOFFLEMIRE AND
J. D. LINNELL. GATE.



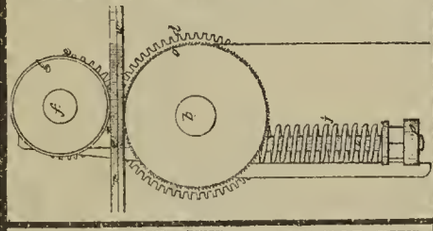
107,639 J. TRANTER, J. KINSEY, AND
J. M. CARR. ROTARY POWER PLOW.



107,640 A. VERBECK. GRINDING MILL.

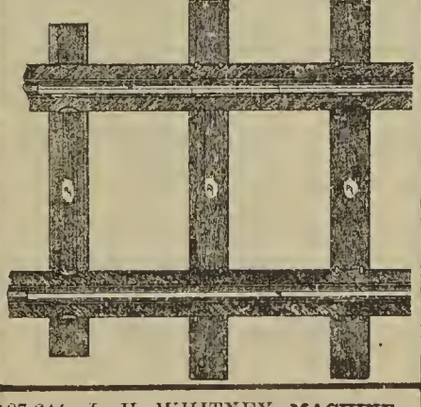


107,641. H. S. VROOMAN
ROUNDING UP MACHINE FOR SHOES.

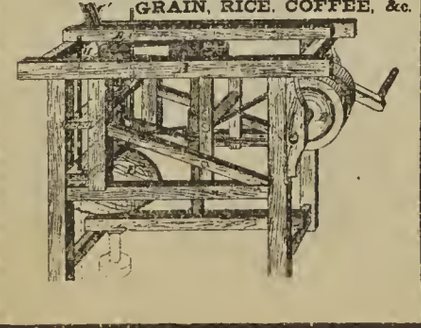


107,642. E. WAITE FABRIC FOR THE
MANUFACTURE OF SHOES, &c.

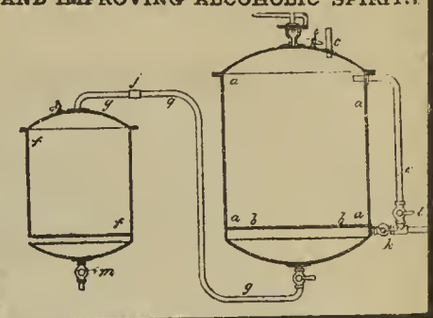
107,643. C. H. WHITE. RAILWAY.



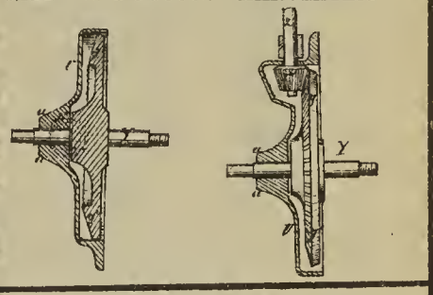
107,644 L. H. WHITNEY. MACHINE
FOR HULLING AND SCOURING
GRAIN, RICE, COFFEE, &c.



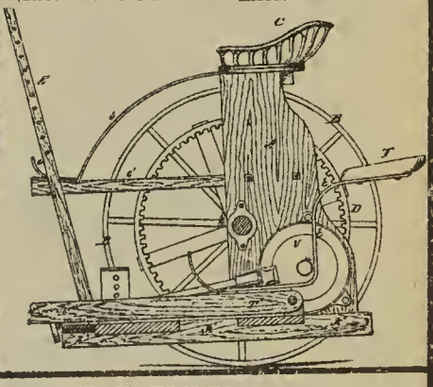
107,645. D. WORTHEN. RECTIFYING
AND IMPROVING ALCOHOLIC SPIRITS.



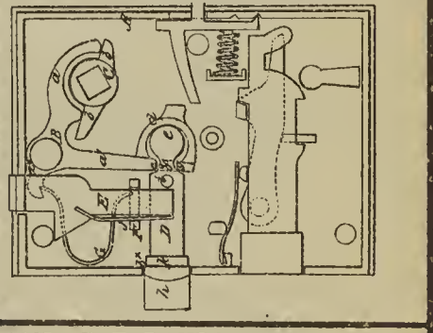
4,124. R. DUTTON. HARVESTER.



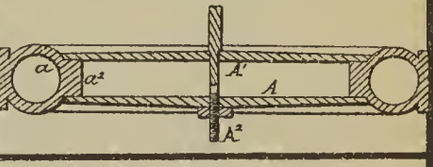
4,125. R. DUTTON HARVESTER.



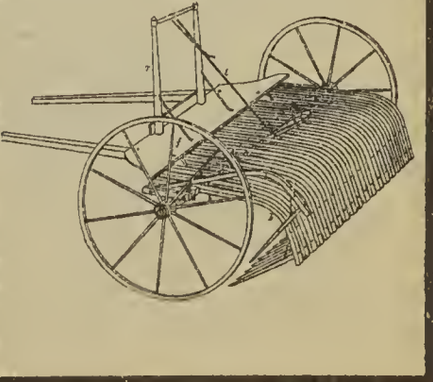
4,126. H. H. ELWELL.
REVERSIBLE KNOB LATCH.



4,127. P. F RANDOLPH
POLISHING MACHINE.



4,128. J. H. SHIREMAN.
HORSE HAY RAKE.



ILLUSTRATIONS OF PATENTS

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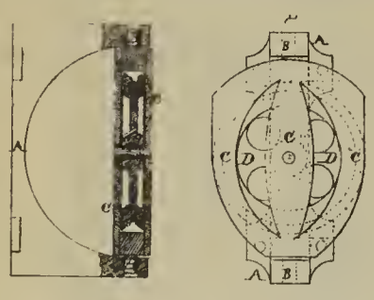
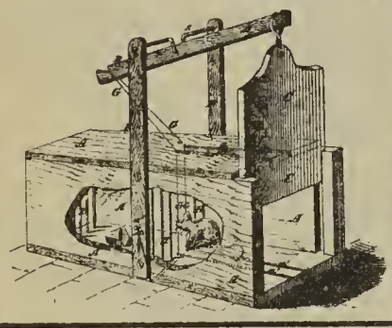
SEPTEMBER 27, 1870.

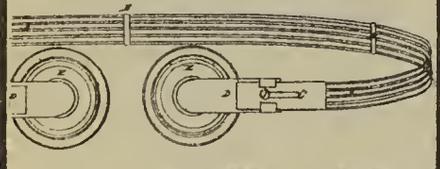
107,646. E. S. AXTELL. **PULLEY FOR GATES.**



107,647 W. K. BACHMAN **MOUSE TRAP**

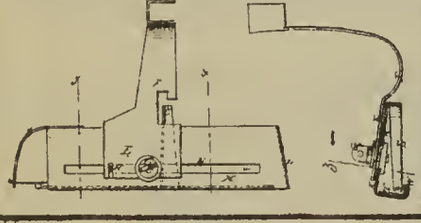


107,648. W. BAKER. **TRUSS.**

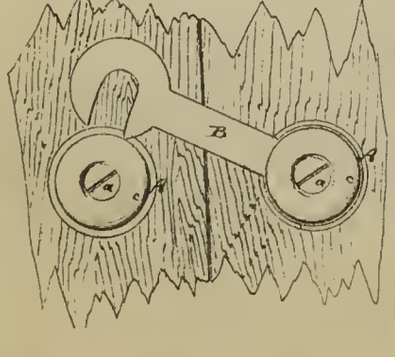


107,649 W. M. BARRY **METALLIC ROOF**

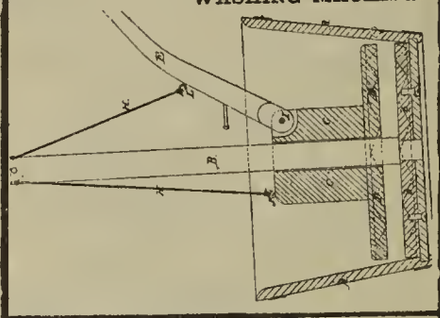
107,650. A. H. BARTLETT. **HEMMER FOR SEWING MACHINES.**



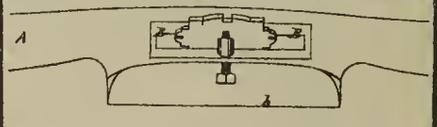
107,651. J. BERBECKER. **SHUTTER FASTENING.**



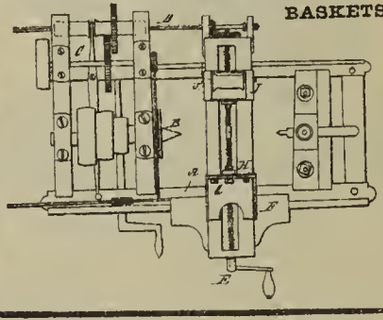
107,652 J. T. BEVER **WASHING MACHINE.**



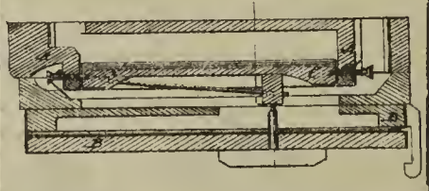
107,653. C. E. BOYNTON **TOOL FOR CUTTING WOOD MOLDINGS**



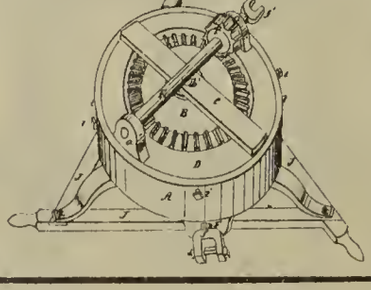
107,654 L. H. BRIDGEMAN **MACHINE FOR CUTTING MATERIAL FOR BASKETS**



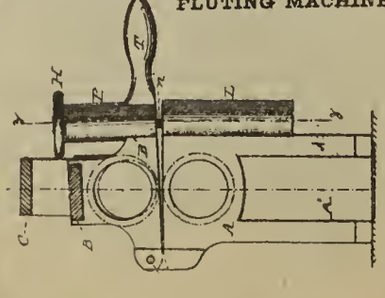
107,655. J. C. BRIGGS. **MELODEON.**



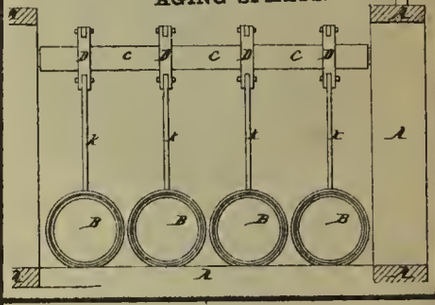
107,656. H. A. BROWN AND E. B. KEITH **COUPLING JACK.**



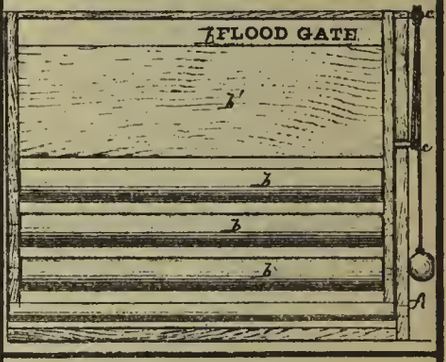
107,657. S. G. CABELL. **FLUTING MACHINE.**



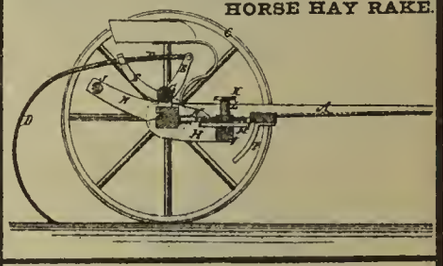
107,658. A. CALDWELL. **AGING SPIRITS.**



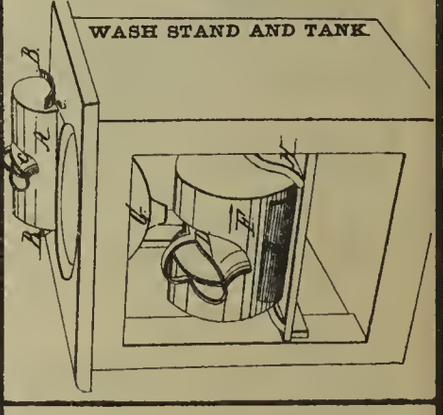
107,659 J. CAMPBELL AND A. WATSON **FLOOD GATE.**



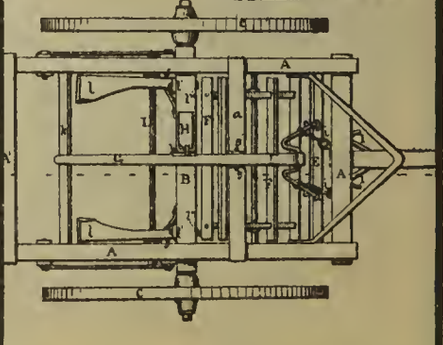
107,660. G. E. CARLETON. **HORSE HAY RAKE.**



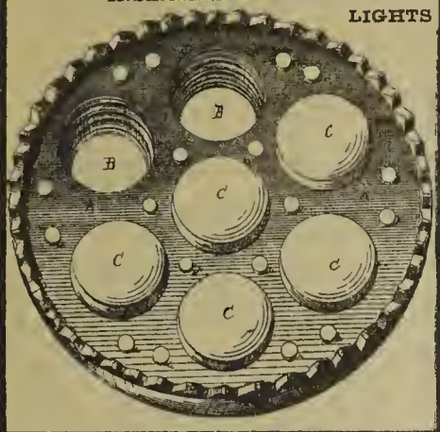
107,661. H. W. CATLIN. **WASH STAND AND TANK.**



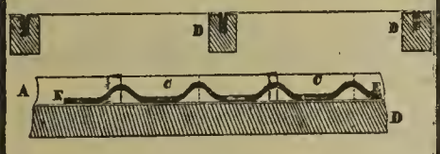
107,662. M. CAYWOOD. **STALK CUTTER.**



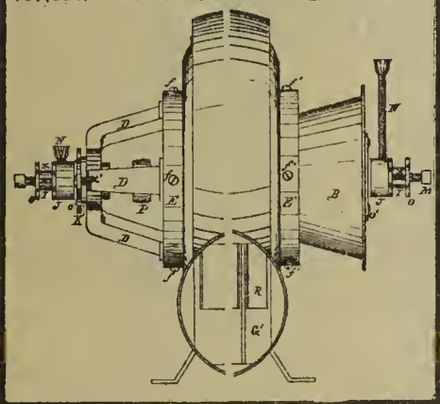
107,663. Z. COBB. MODE OF INSERTING GLASS IN VAULT LIGHTS



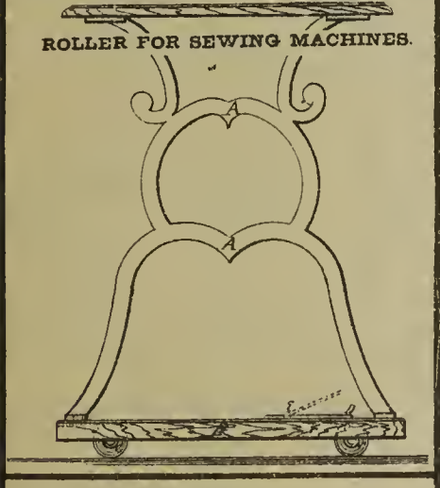
107,664. B. CODDINGTON. TIN ROOFING.



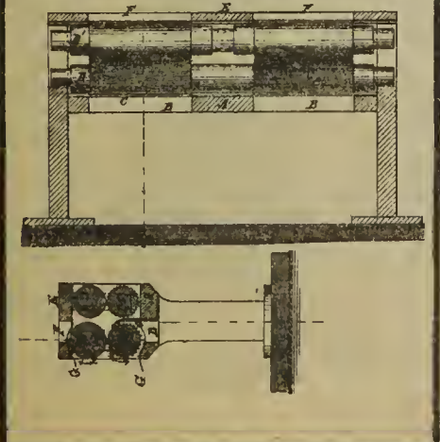
107,665. W. S. COLWELL. BLOWER.



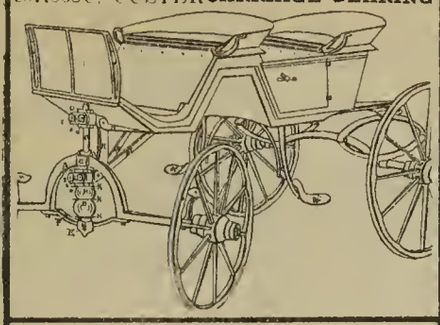
107,666. R. W. COURTS. ROLLER FOR SEWING MACHINES.



107,667. L. CRAWFORD. WIPING APPARATUS FOR FEED AND OTHER ROLLERS.

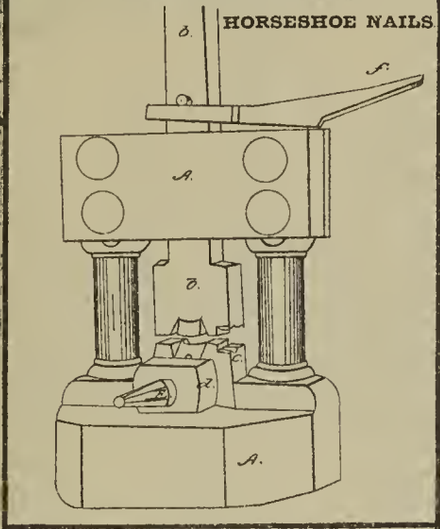


107,668. C. CUSTER. CARRIAGE GEARING.



107,669. C. DANN. JOINTED OAR.

107,670. N. DEXTER. MACHINE FOR SHAPING THE HEADS OF HORSESHOE NAILS.



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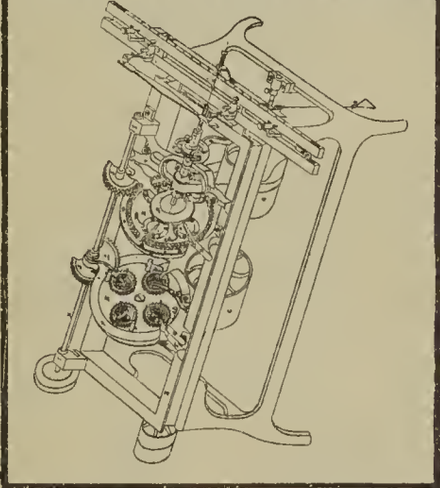
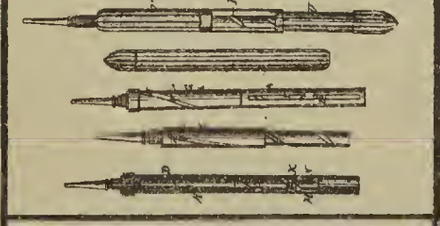
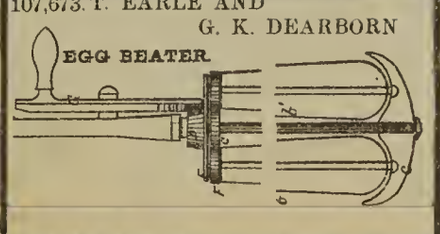


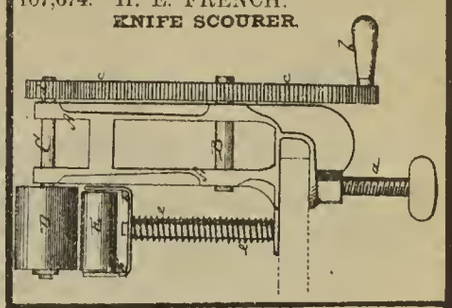
107,672. C. H. DOWNES. PENCIL CASE.



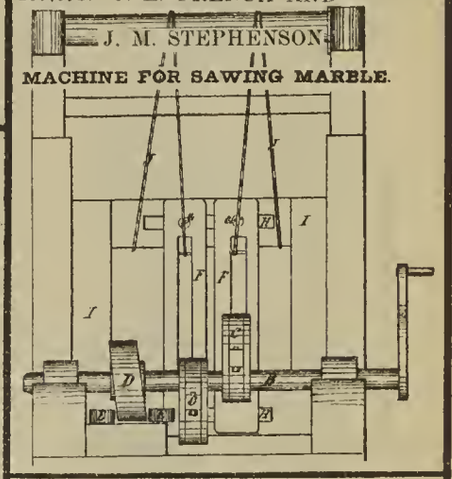
107,673. T. EARLE AND G. K. DEARBORN. EGG BEATER.



107,674. H. E. FRENCH. KNIFE SCOURER.



107,675. J. E. FRENCH AND J. M. STEPHENSON. MACHINE FOR SAWING MARBLE.



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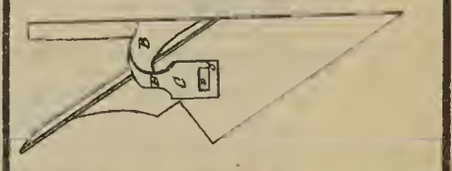
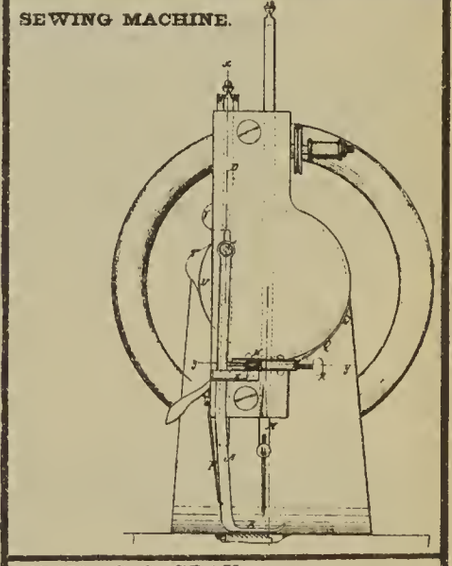
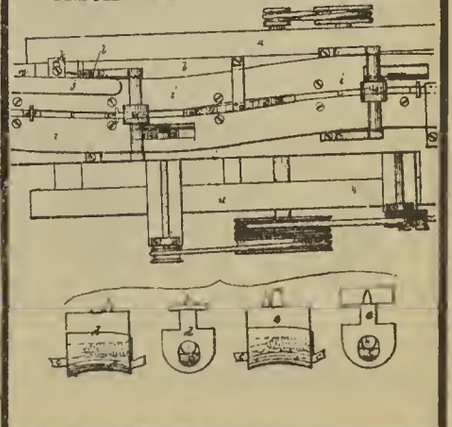


107,677. C. W. GODOWN. SEWING MACHINE.

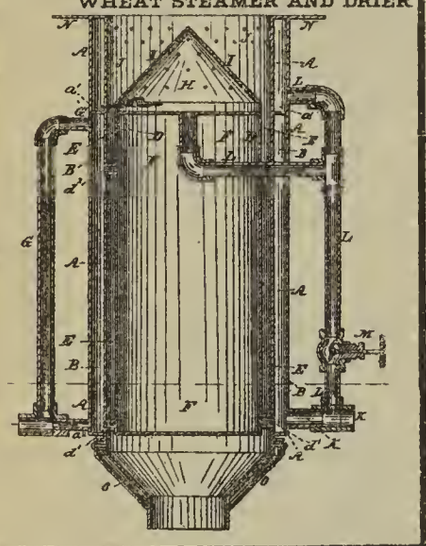


107,678. S. S. GRAY. MACHINE FOR JOINTING STAVES.

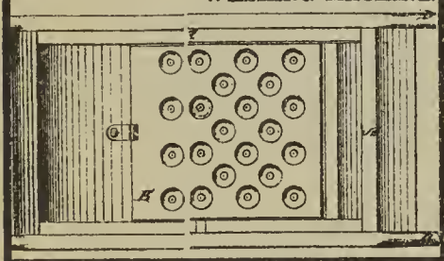


107,679. G. HABERLAND. EAR RING.

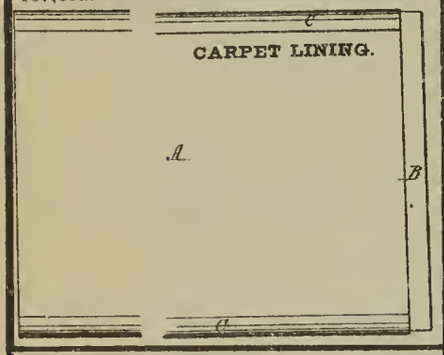
107,680. C. T. HANNA
WHEAT STEAMER AND DRIER



107,681. E. S. HARPER.
WASHING MACHINE.



107,682. J. R. HARRINGTON.
CARPET LINING.



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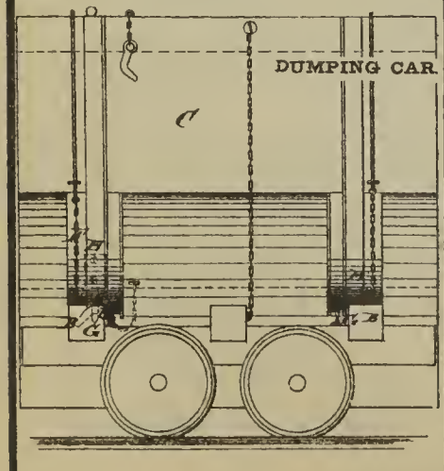
DUMPING CAR.



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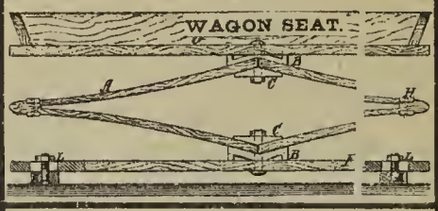
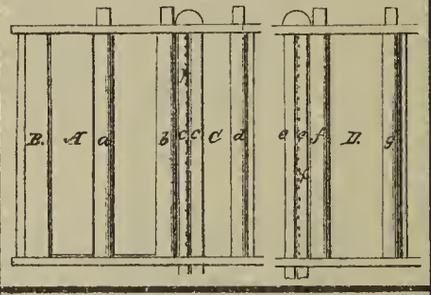
WAGON SEAT.



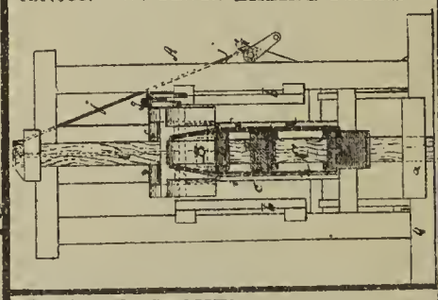
107,685. F. H. HOLTON.
CHAIR AND FURNITURE TIP

107,686. E. P. HUDSON APPARATUS FOR PREPARING PARCHMENT OR WATER PROOF PAPER



107,687. E. P. HUDSON
MANUFACTURE OF RUBBER COATED PARCHMENT PAPER

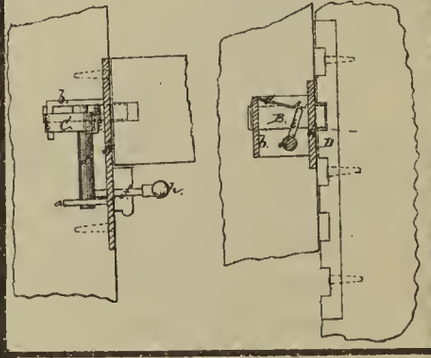
107,688. W. ILER. BALING PRESS.



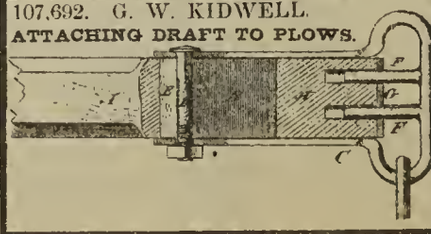
107,689. G. JAQUES.
METHOD OF PRESERVING FRUIT.

107,690. G. JAQUES.
COMPOSITION OF MATTER FOR PRESERVING FRUIT FROM DECAY.

107,691. W. F. KELLS. SASH HOLDER



107,692. G. W. KIDWELL.
ATTACHING DRAFT TO PLOWS.



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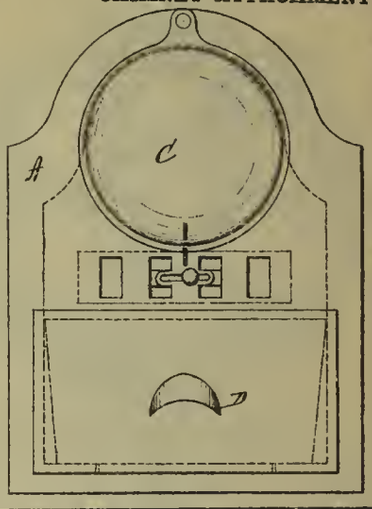
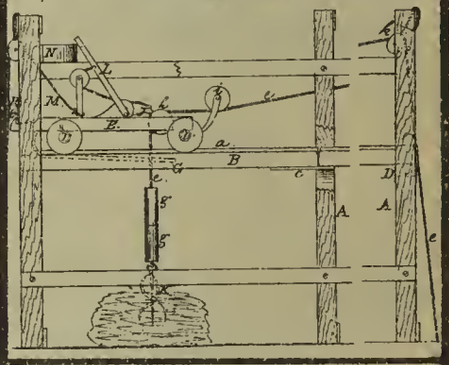
CHEWING GUM.

107,694. A. H. LANPHEAR.
CHIMNEY ATTACHMENT



107,695. J. LINDERMAN HAY ELEVATOR



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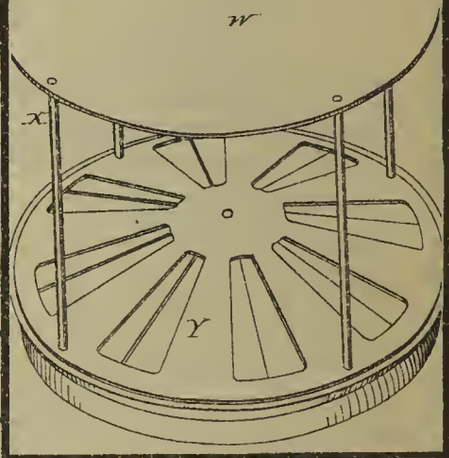

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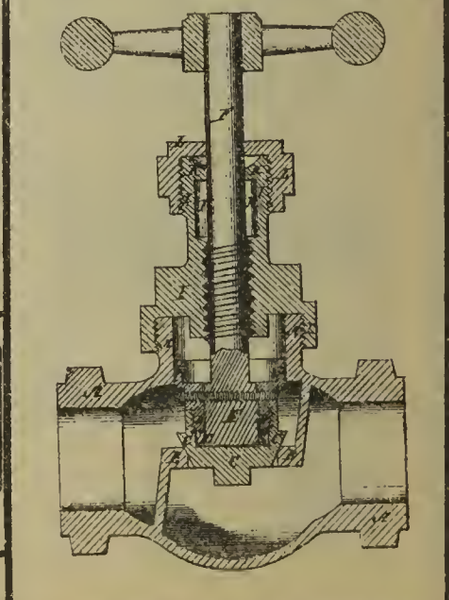
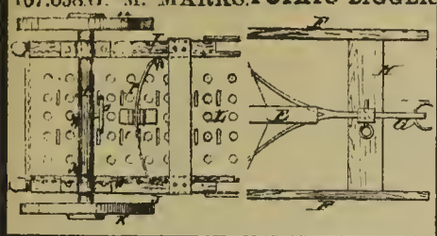
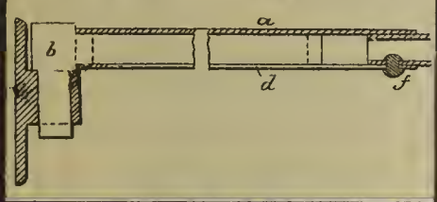


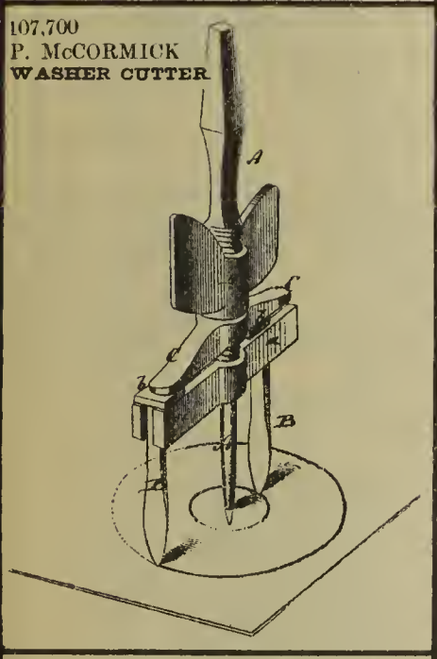
107,698. G. M. MARKS. POTATO DIGGER



107,699. R. MARSH. LAMP BRACKET.

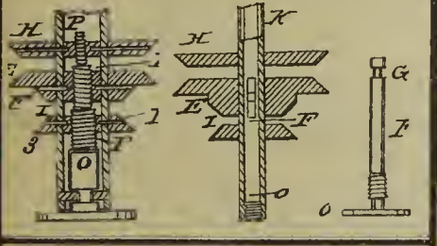


107,700
P. McCORMICK
WASHER CUTTER

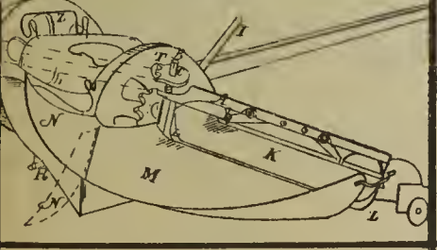


107,701. E. McILHENNY. PEPPER SAUCE

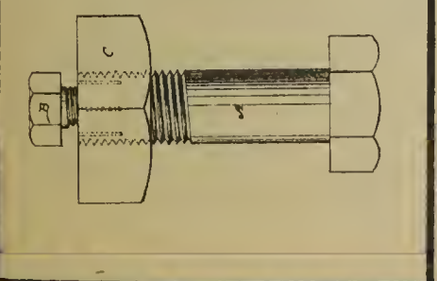
107,702. T. S. MINNISS.
FRICTION LOCOMOTIVE



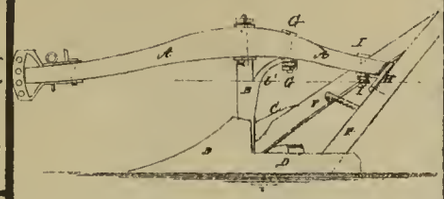
107,703. T. S. MINNISS. GRAIN BINDING ATTACHMENT FOR HARVESTERS.



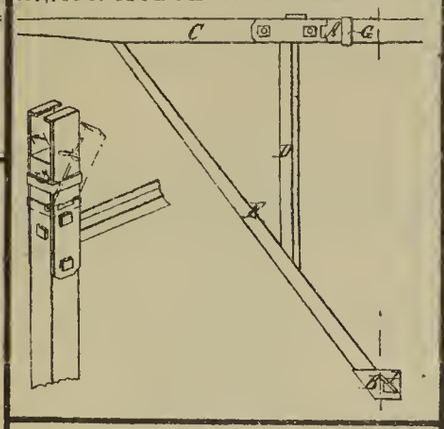
107,704. J. MOORCROFT. NUT LOCK.



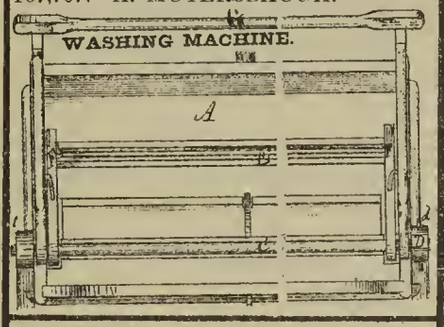
107,705. D. MORRIS. PLOW.



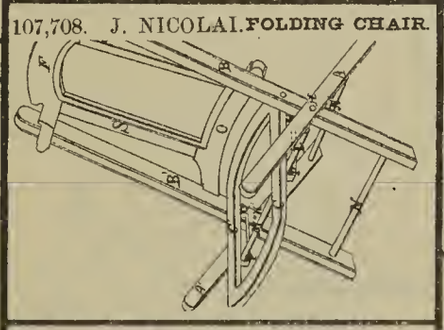
107,706. C. MUDGE. SCAFFOLD BRACKET



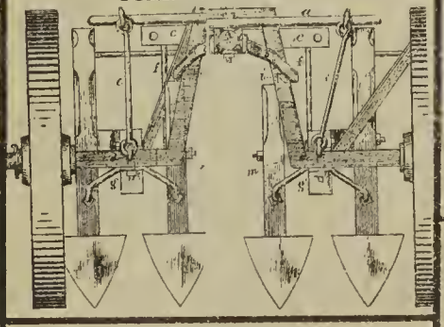
107,707. A. MUTERSBAUGH.
WASHING MACHINE.



107,708. J. NICOLAI. FOLDING CHAIR.



107,709. H. C. OSBORN.
CORN PLOW AND PLANTER.



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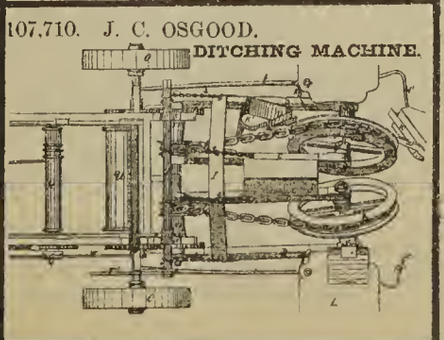
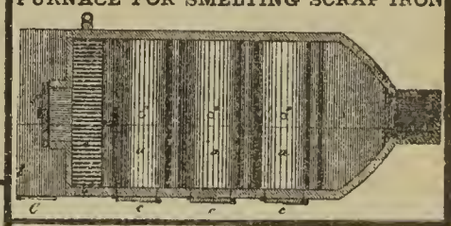
DITCHING MACHINE.



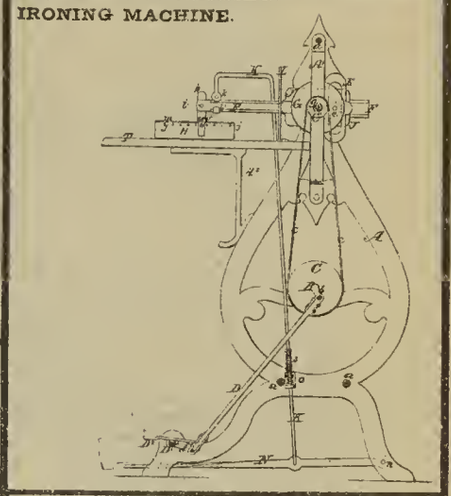
107,711. A. OTT. TREATING TIN SCRAP FOR THE MANUFACTURE OF STANNATE OF POTASH, &c.

107,712. A. OTT.
FURNACE FOR SMELTING SCRAP IRON

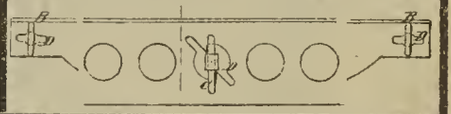


107,713. C. F. PANKNIN. TANNING.

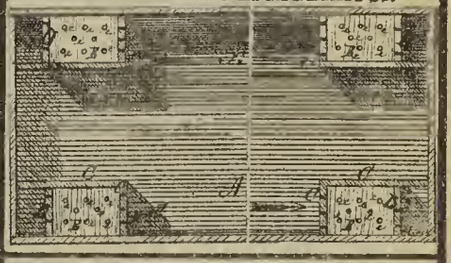
107,714. C. F. PARKER.
IRONING MACHINE.



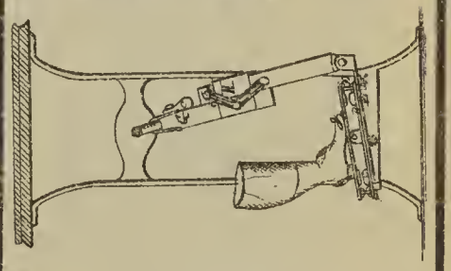
107,715. A. L. PENNOCK. FURNACE GRATE



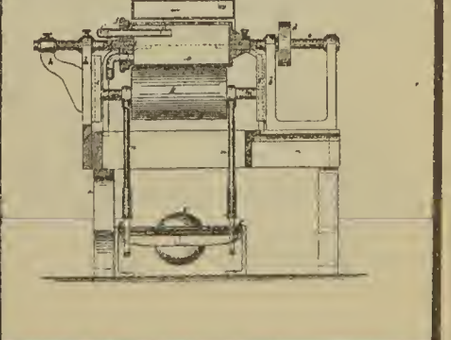
107,716. W. E. PHELPS. CAR VENTILATOR AND REFRIGERATOR



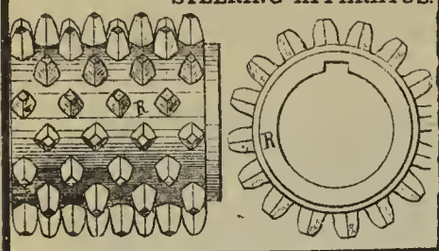
107,717. B. C. POLE. TREADLE FOR SEWING AND OTHER MACHINES.



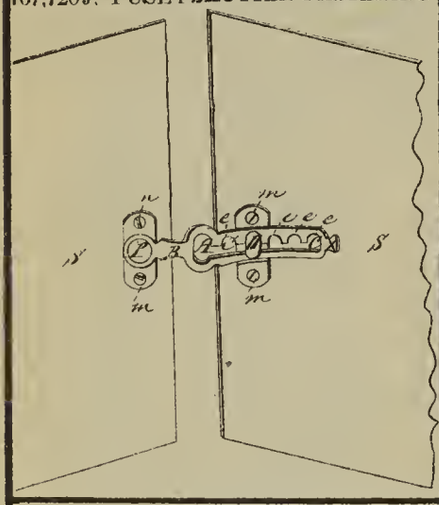
107,718. T. T. PONSONBY
MACHINE FOR ORNAMENTING THE SURFACE OF WOOD, &c.



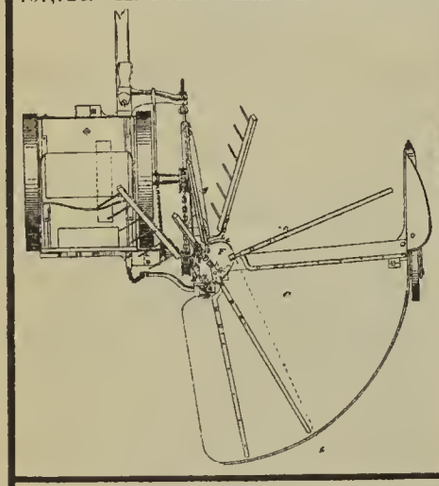
107,719. T. C. PURINGTON. STEERING APPARATUS.



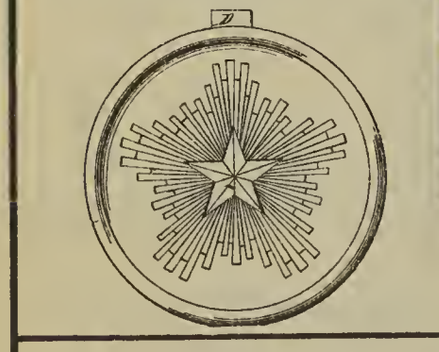
107,720 J. PUSEY SHUTTER FASTENING



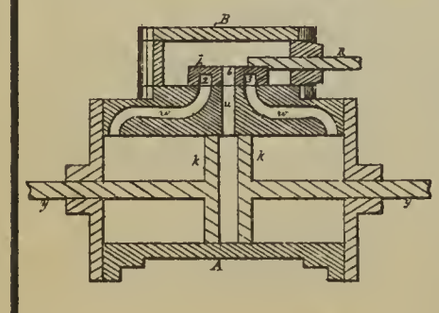
107,721. A. RANK. HARVESTER RAKE



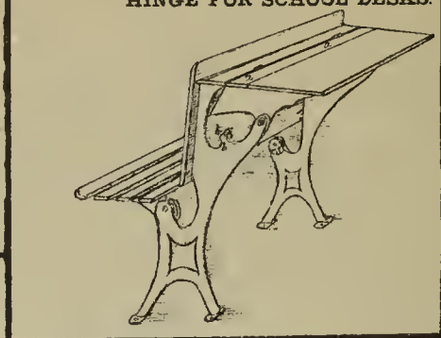
107,722. J. A. READ. COVER FOR STOVE PIPE HOLES.



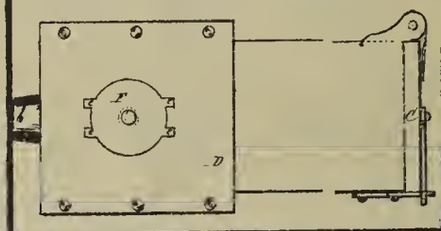
107,723. W. F. RICHARDSON. STEAM ENGINE.



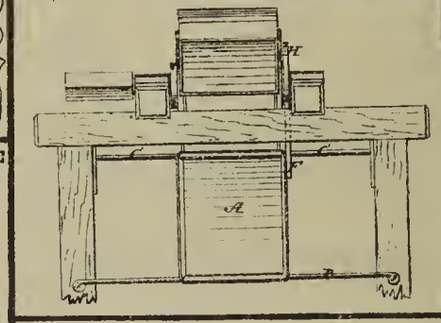
107,724. A. E. ROBERTS. HINGE FOR SCHOOL DESKS.



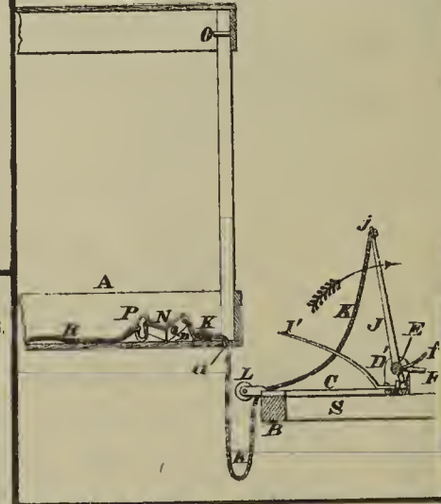
107,725. J. ROGERS. TUYERE.



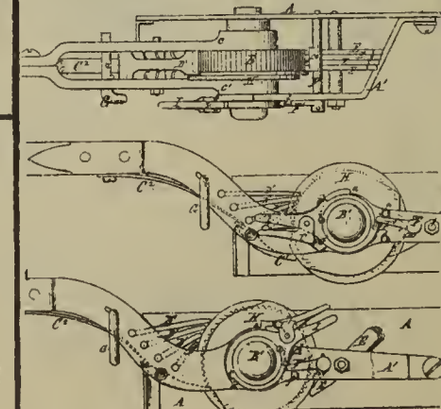
107,726. T. H. RUDIGER. ELEVATOR.



107,727. A. SCHMITT. HORSE DETACHING DEVICE.

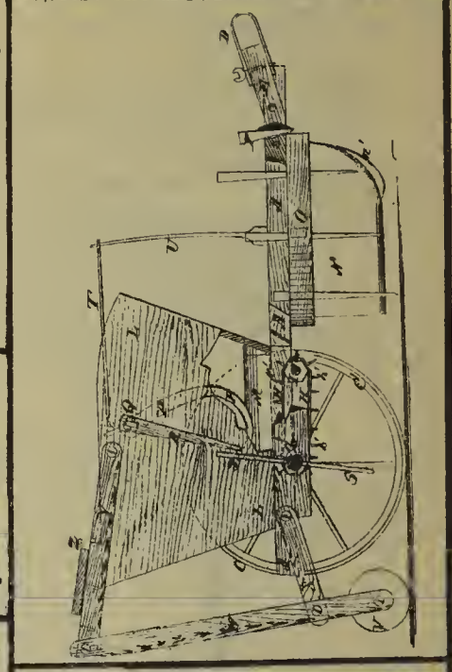


107,728. G. SELDEN. HEAD BLOCK FOR SAW MILLS.

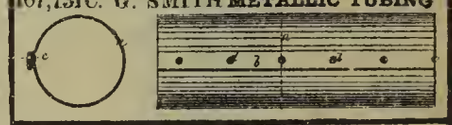


107,729. F. B. SHEARER PROCESS OF UNITING RUBBER WITH WOOD.

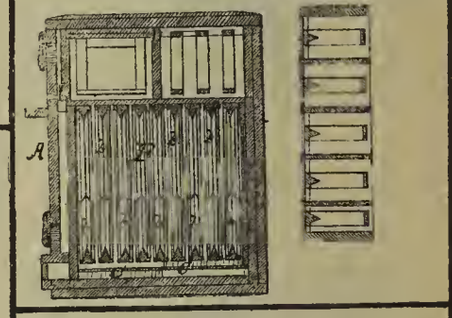
107,730 F. SLOAN COTTON SEED PLANTER



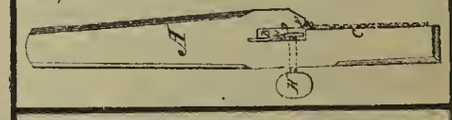
107,731 C. G. SMITH METALLIC TUBING



107,732. J. L. SMITH. BEE HIVE.

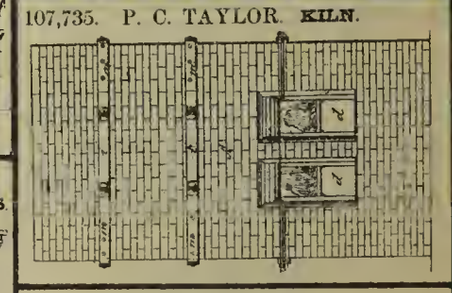


107,733. W. A. SMITH. SAW SET.

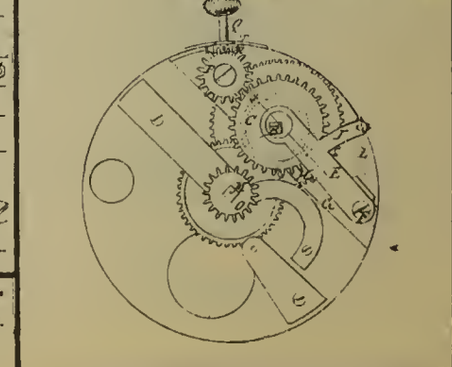


107,734. W. SPEARS. MANUFACTURE OF HYDROCARBON OIL

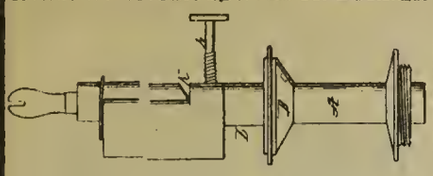
107,735. P. C. TAYLOR. KILN.



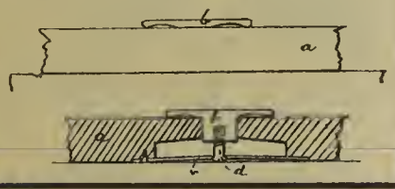
107,736. F. R. THEURER. STEM WINDING AND SETTING ATTACHMENT TO WATCHES



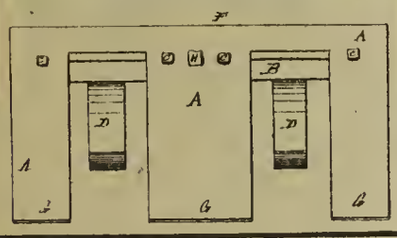
107,737 W. THOMPSON VAPOR BURNER



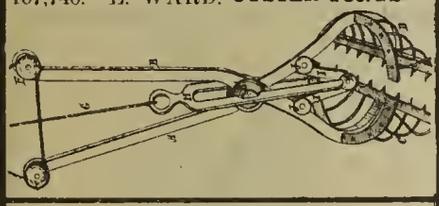
107,738 J. T. THOMSON SNAPPER CLEAT



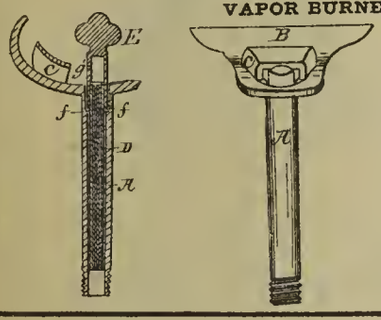
107,739 E. VON JEINSEN LUBRICATOR



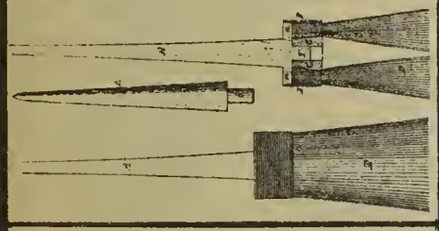
107,740. E. WARD. OYSTER TONGS



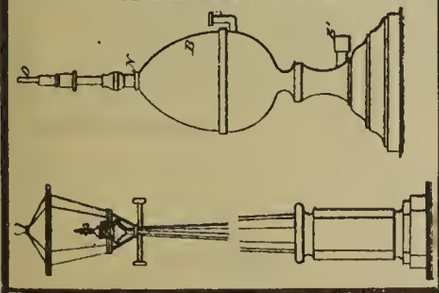
107,741 H. WELLINGTON VAPOR BURNER.



107,742. J. L. WHITING. BRUSH.

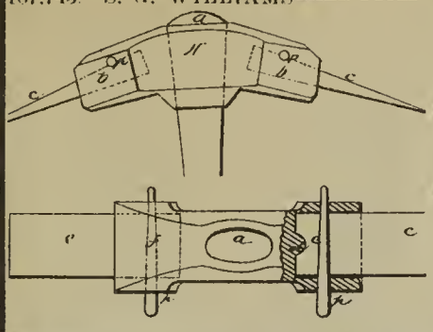


107,743. S. WHITNEY. GAS CARBONIZING ATTACHMENT FOR STREET AND OTHER LIGHTS.

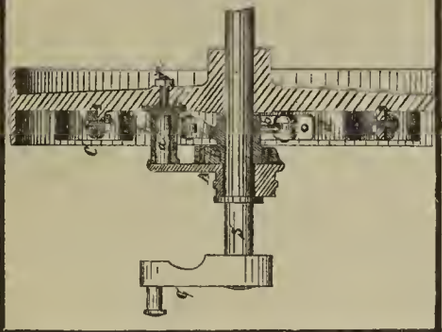


107,744. W. A. WICKS. FASTENING FOR NECKTIES.

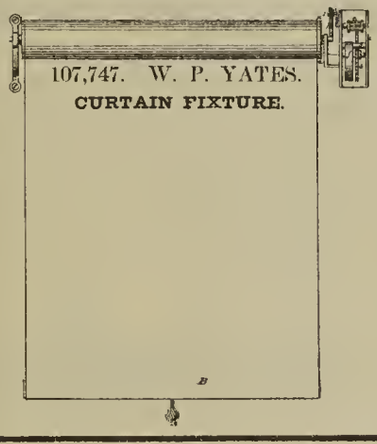
107,745. S. G. WILLIAMS MILL PICK.



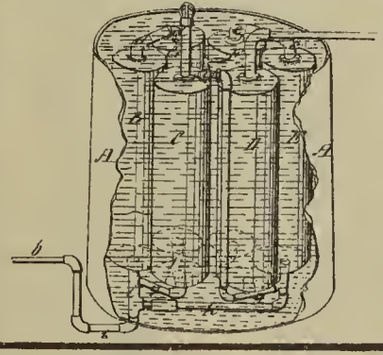
107,746. D. A. WOODBURY AUTOMATIC CUT-OFF FOR STEAM ENGINES



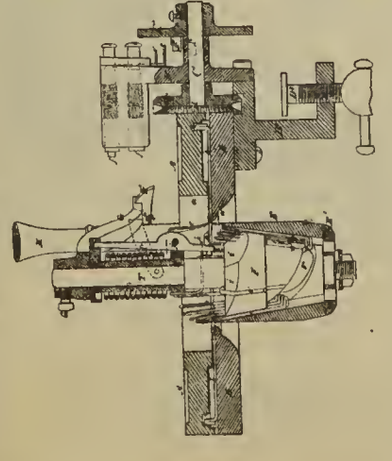
107,747. W. P. YATES. CURTAIN FIXTURE.



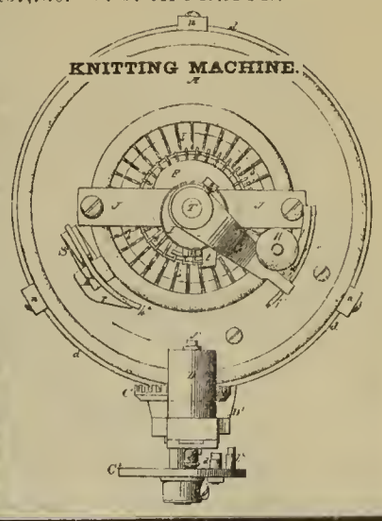
107,748. H. ANDERSON STEAM ENGINE CONDENSER.



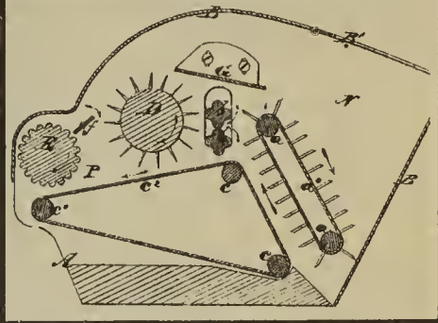
107,749 C. J. APPLETON KNIT FABRIC.



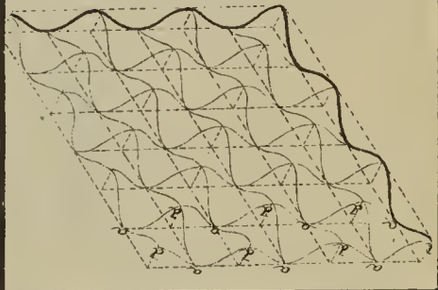
107,750. C. J. APPLETON. KNITTING MACHINE.



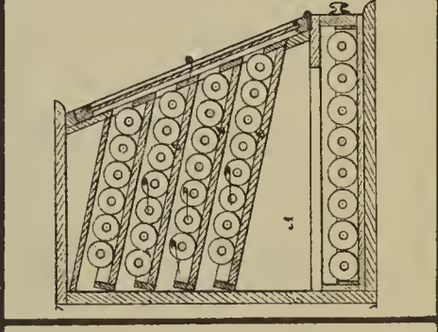
107,751. J. W. BARBOUR. FEEDING DEVICE FOR CARDING MACHINES



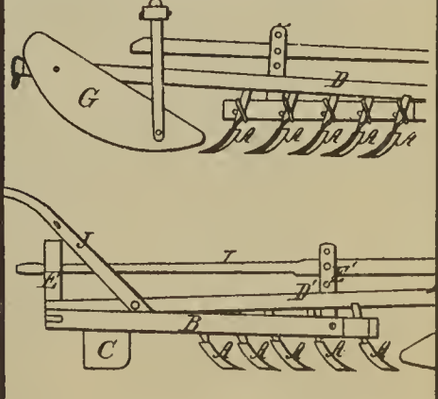
107,752 S. BARKER AND H. S. PRATT ROLLED SHEET IRON.



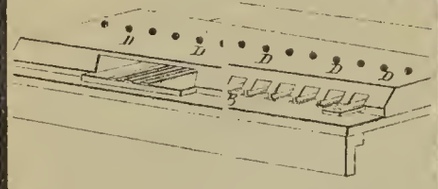
107,753. M. M. BELDING SHOW CASE



107,754. V. BOLIS CULTIVATOR PLOW.

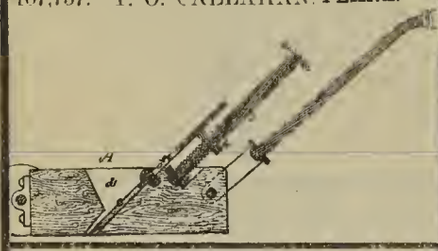


107,755. R. BURDETT. REED BOARD FOR ORGANS.

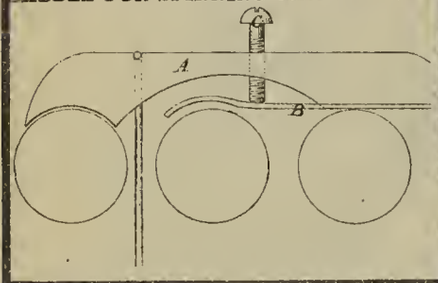


107,756. C. BURGESS. CEMENT WALK, PAVEMENT, AND ROAD.

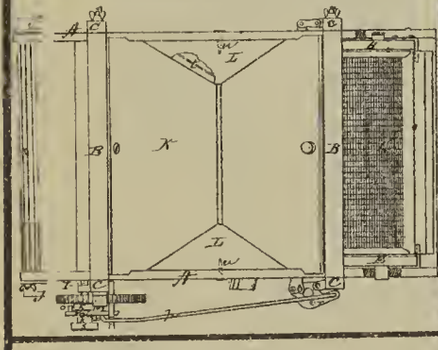
107,757. T. O. CALLAHAN. PLANE.



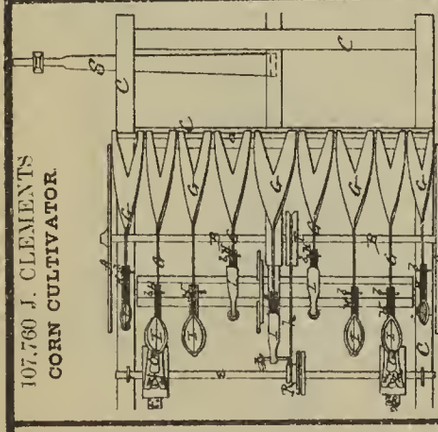
107,758. J. S. CASEY. SADDLE FOR SPINNING MACHINES, &c.



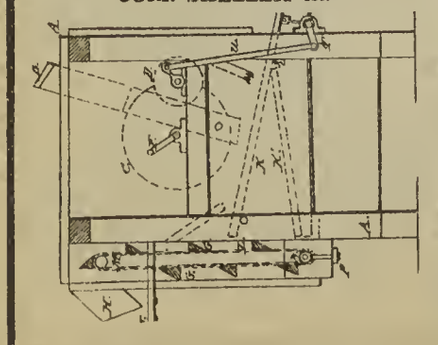
107,759. G. E. CLARKE. FANNING MILL.



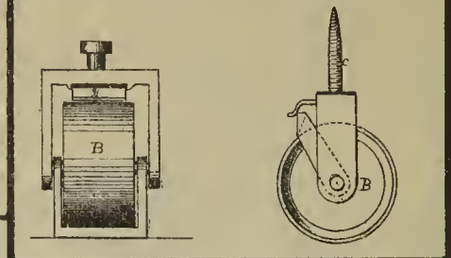
107,760. J. CLEMENTS. CORN CULTIVATOR.



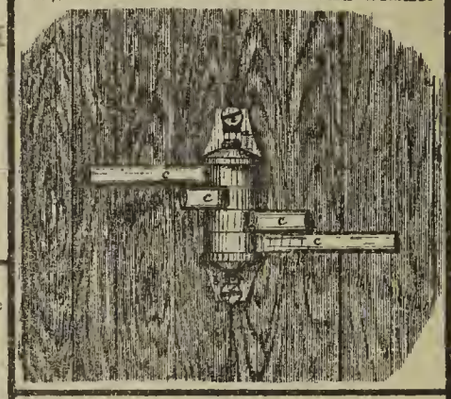
107,761. G. S. COLEMAN. CORN SHELLER, &c.



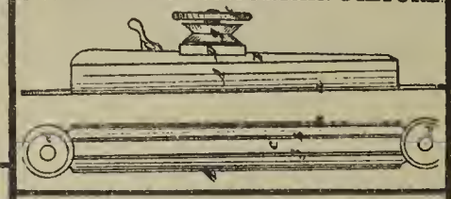
107,762. W. COUGHLIN. ADJUSTABLE STOP FOR CASTERS FOR STOVE LEGS.



107,763. L. CUTTING. CLOTHES DRIER.

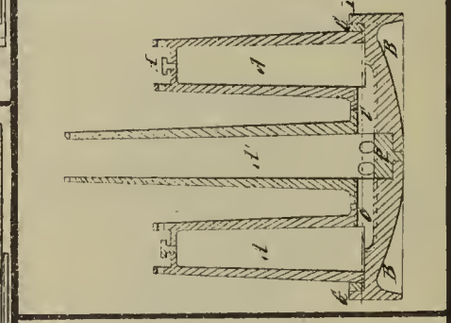


107,764. J. DOYLE. CURTAIN FIXTURE.

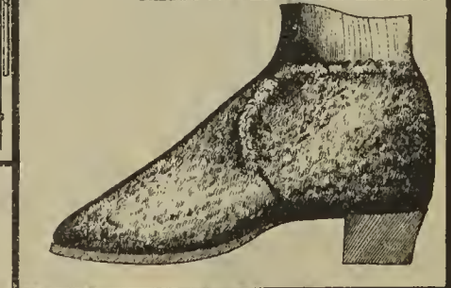


107,765. P. N. DRAKE AND D. DRUMMOND. SPLINT PLANE.

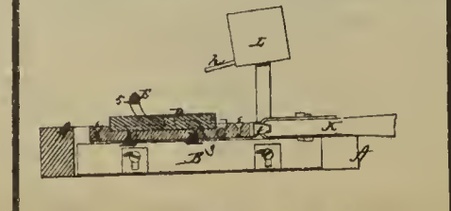
107,766. Z. S. DURFEE. INGOT MOLD.



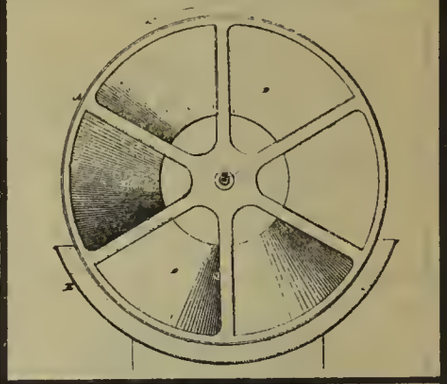
107,767. H. A. EVERTS. REMOVABLE SHOE LINING.



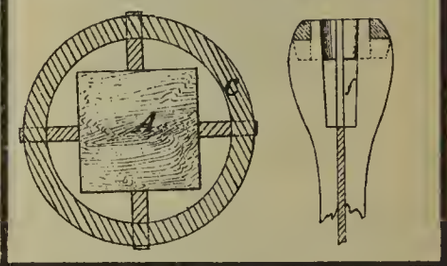
107,768. U. FARIS AND A. MILLER. GRINDSTONE OR TOOL SHARPENER.



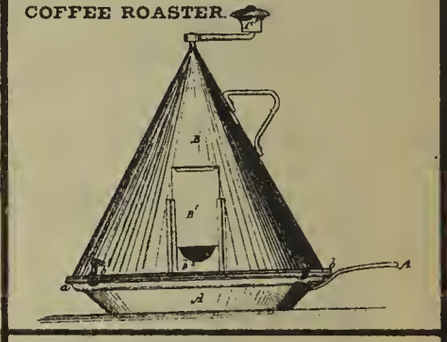
107,769. W. FISCHER. LIQUID METER.



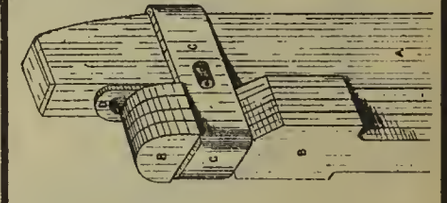
107,770. W. FULKERSON. SETTING OF FENCE POSTS.



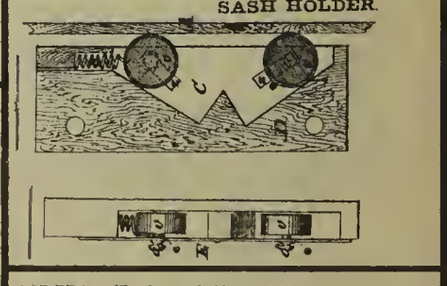
107,771. H. M. GILBERT. COFFEE ROASTER.



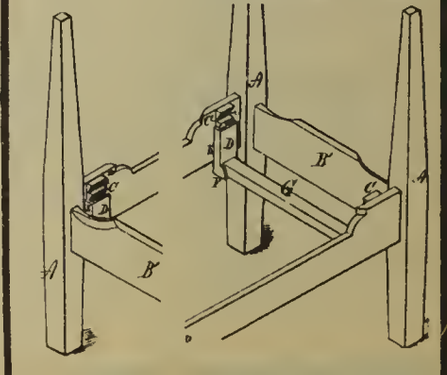
107,772. J. M. GOTHAM. PICKER COLLAR.



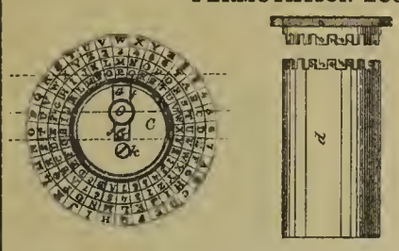
107,773. P. W. GREENWOOD. SASH HOLDER.



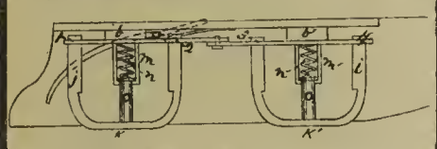
107,774. T. B. GREGORY. BEDSTEAD CLAMP.



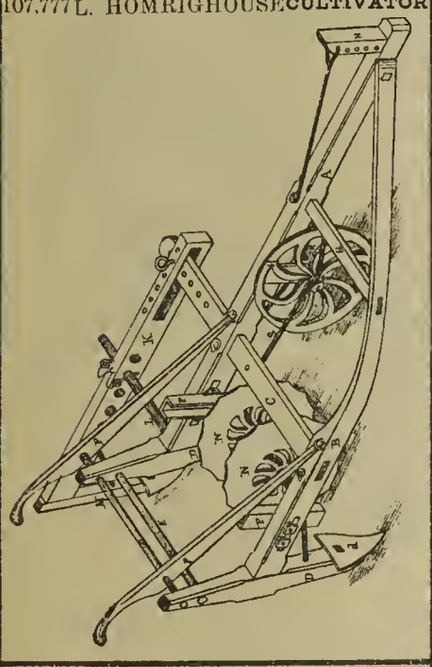
107,775. W. N. HALL. PERMUTATION LOCK.



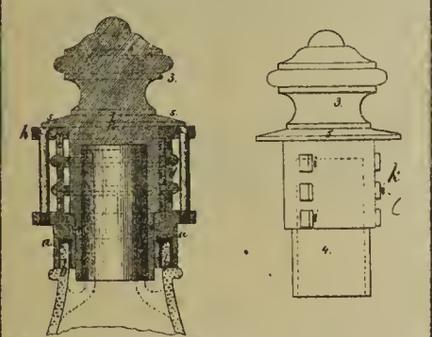
107,776. B. E. HEMINWAY. SLED.



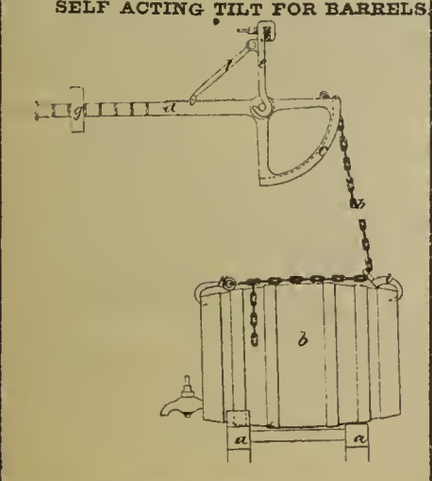
107,777 L. HOMRIGHOUSE CULTIVATOR.



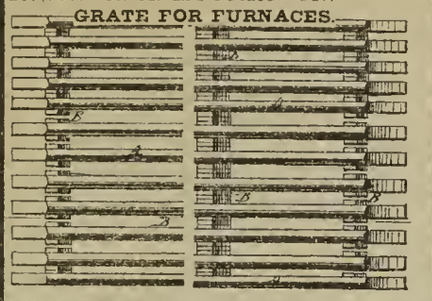
107,778. J. T. HOUGH. LOCKING CAP FOR BOTTLES.



107,779 1. HUDSON AND W. MINSHALL. SELF ACTING TILT FOR BARRELS.

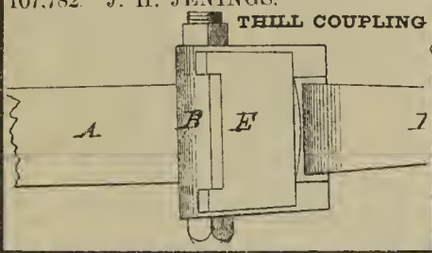


107,780. R. A. HUTCHINSON. GRATE FOR FURNACES.

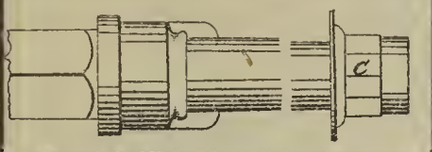


107,781. R. A. JACKSON CONVERTING CAST IRON AND CAST IRON ARTICLES INTO STEEL.

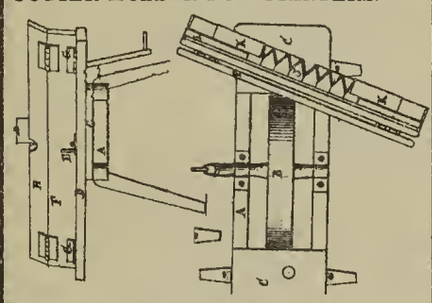
107,782. J. H. JENINGS. THILL COUPLING.



107,783 H. KILLAM. CARRIAGE AXLE.

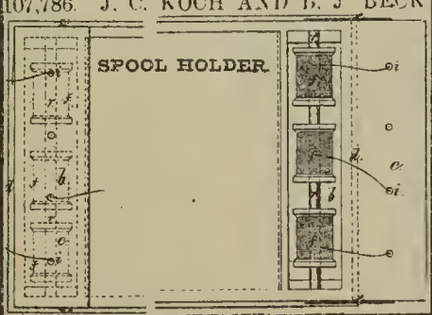


107,784. T. E. KING HARVESTER CUTTER HOLDER FOR GRINDERS.



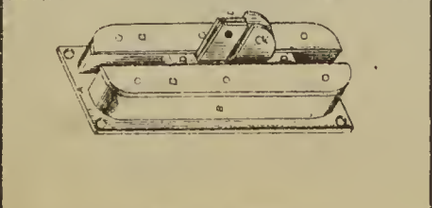
107,785. J. KNIGHT. WHIFFLETREE HOOK.

107,786. J. C. KOCH AND B. J. BECK. SPOOL HOLDER.

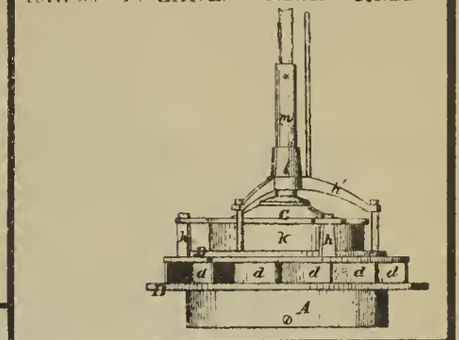


107,787. H. KOEHLER MANUFACTURE OF SPIRITS FROM STARCH.

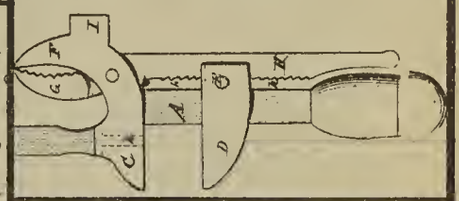
107,788. J. L. KRETSER PITMAN HEAD.



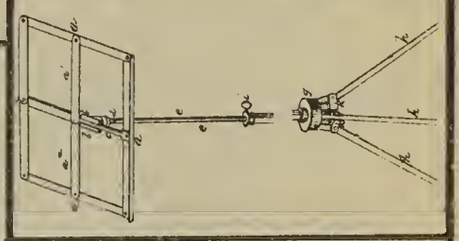
107,789. D. LANE. WATER WHEEL.



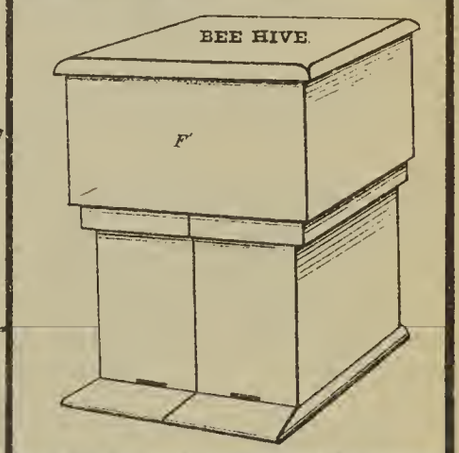
107,790. O. C. LAWBAUGH. WRENCH.



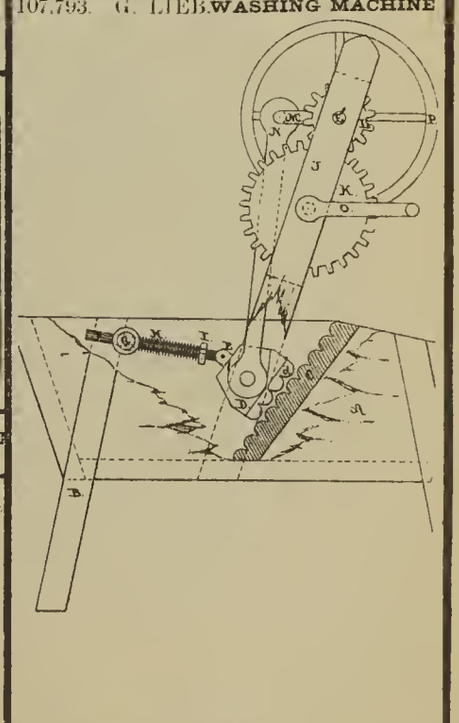
107,791. C. LEHNERT. MUSIC STAND.



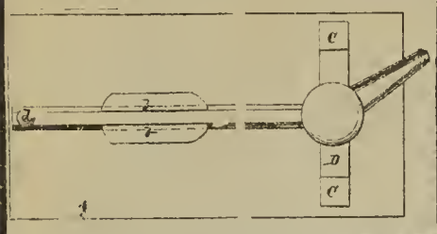
107,792. J. LEFFEL AND E. HARRISON. BEE HIVE.



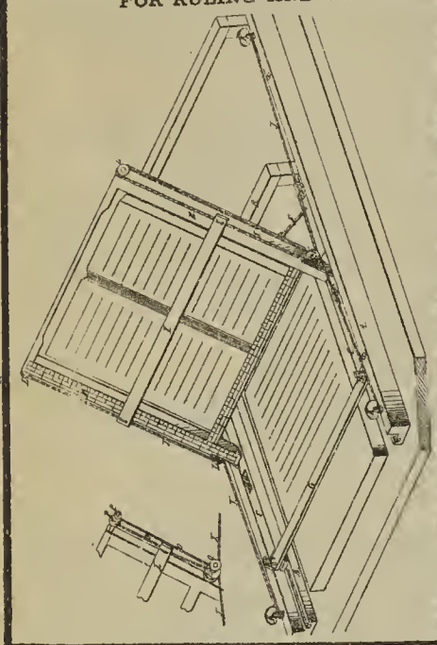
107,793. G. LIEB. WASHING MACHINE.



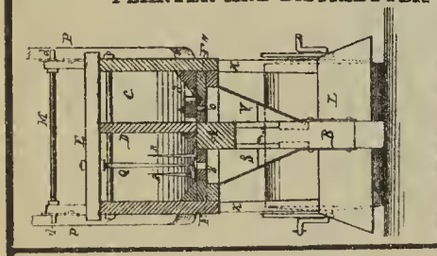
107,794 B. J. McFEELY. APPLE CORER AND QUARTERER



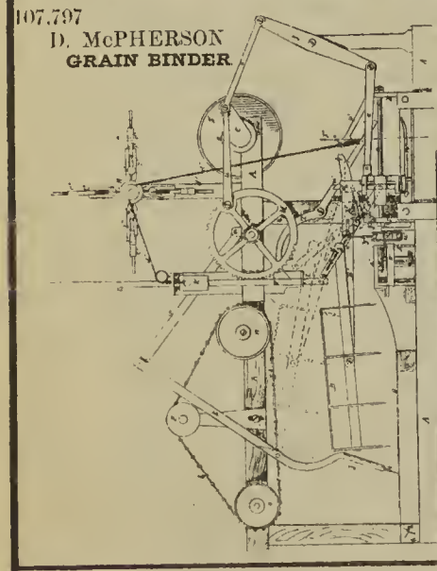
107,795. G. McHENRY. MACHINE FOR RULING AND COPYING.



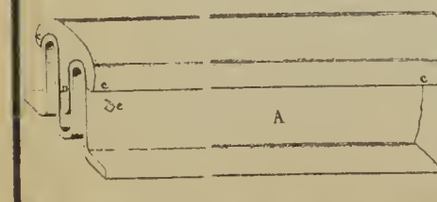
107,796. D. McKELLAR. PLANTER AND DISTRIBUTER.



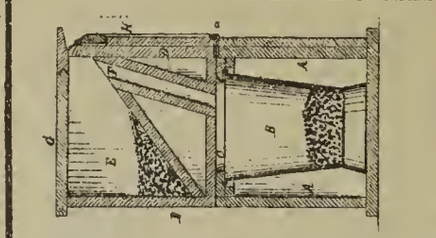
107,797 D. McPHERSON GRAIN BINDER.



107,798. R. MONTGOMERY. RAILWAY RAIL.

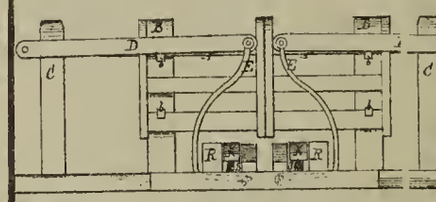


107,799 W. H. NEWTON EARTH CLOSET

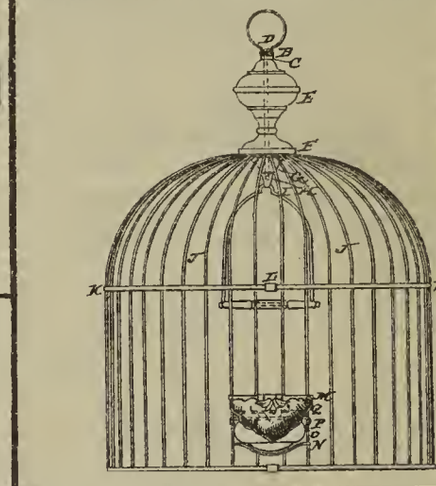


107,800. P. NORDEN AND H. MISCHO DYEING FURS.

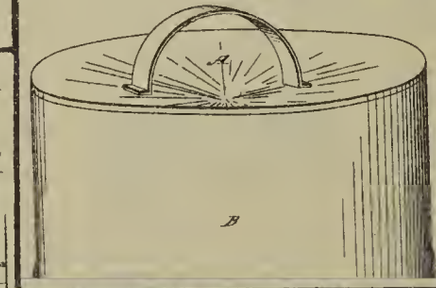
107,801 M. OREWILER AUTOMATIC GATE.



107,802. G. R. OSBORN. BIRD CAGE.



107,803. L. B. OVIATT. COVER FOR COOKING UTENSILS.



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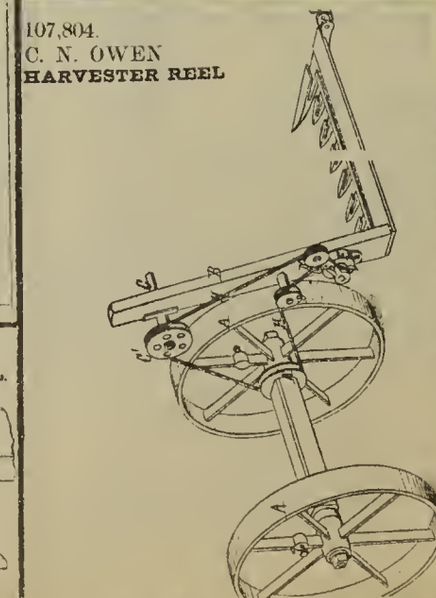
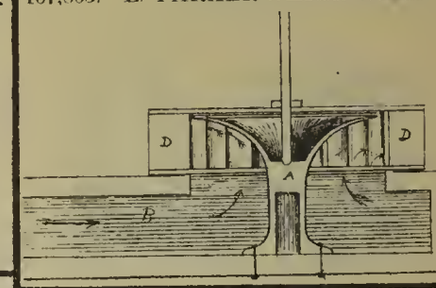
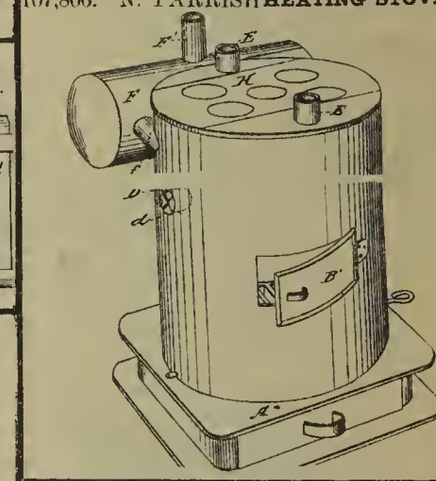


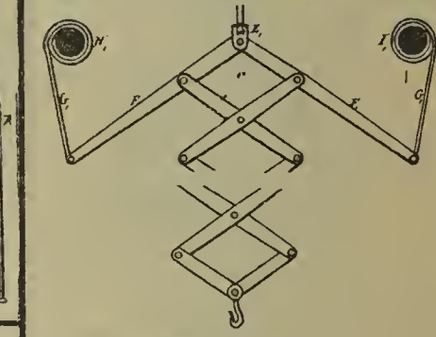
107,805. E. PARKER WATER WHEEL.



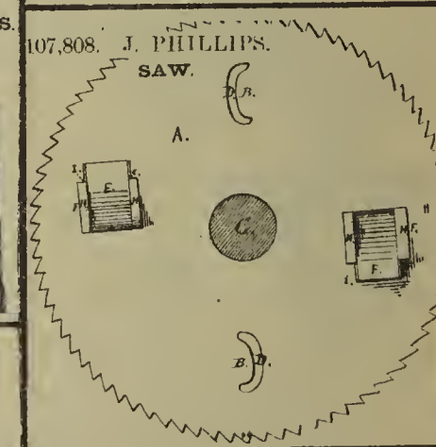
107,806. N. PARRISH HEATING STOVE.



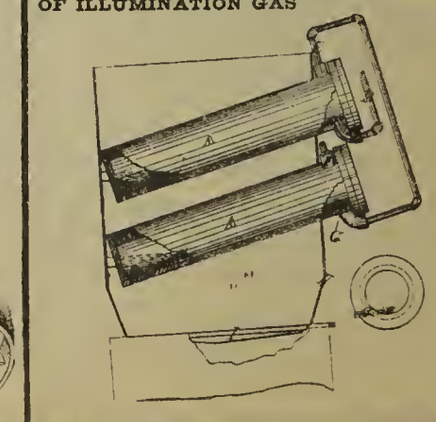
107,807 N. PARRISH HOISTING MACHINE



107,808. J. PHILLIPS. SAW.



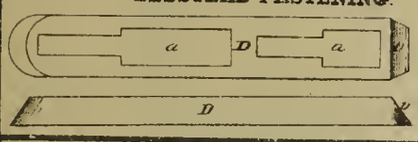
107,809. E. A. AND G. H. POND AND M. S. RICHARDSON. MANUFACTURE OF ILLUMINATION GAS



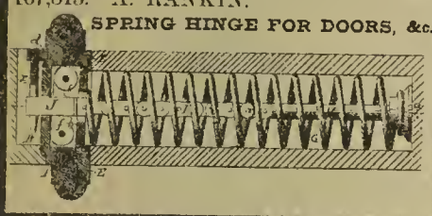
107,810. W. PORTER. MANUFACTURE OF FRICTION MATCH CIGAR LIGHTER.

107,811. E. PREVOST. LIQUID FOR GALVANIC BATTERIES.

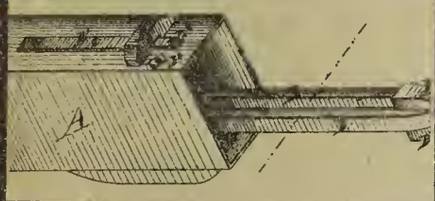
107,812. C. D. PURDY. BEDSTEAD FASTENING.



107,813. A. RANKIN. SPRING HINGE FOR DOORS, &c.

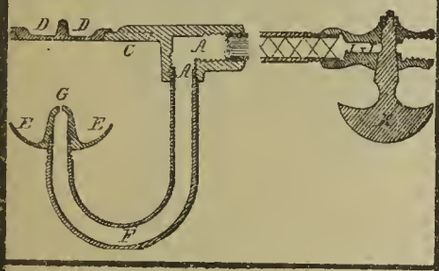


107,814. B. R. ROSE. CAR COUPLING.

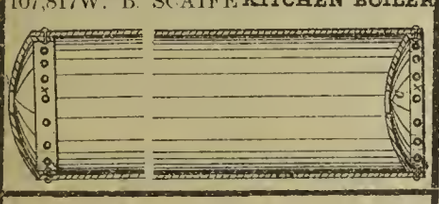


107,815. A. RUTTKAY. MANUFACTURE OF ASPHALTIC COMPOSITION FOR PAVEMENTS, ROADS, &c.

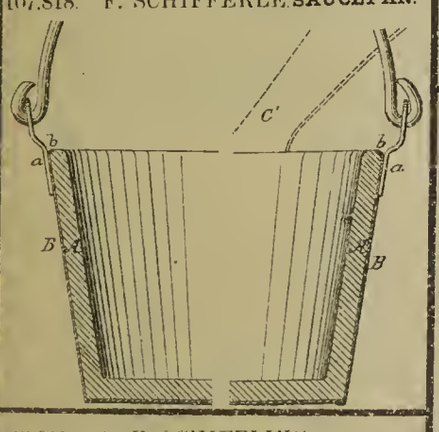
107,816. D. E. RYAN. VAPOR GENERATING BURNER FOR STOVES.



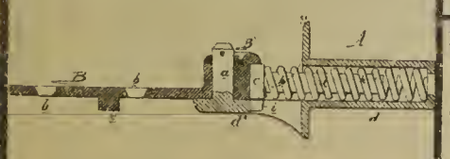
107,817. W. B. SCAIFE. KITCHEN BOILER.



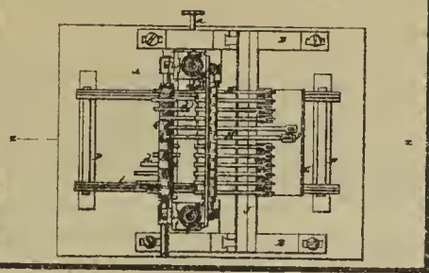
107,818. F. SCHIFFERLE. SAUCEPAN.



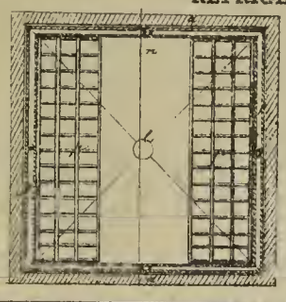
107,819. A. F. SCHIFFLING. SPRING HINGE FOR DOORS, &c.



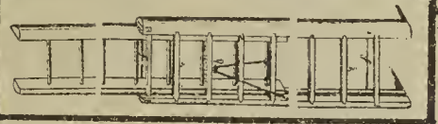
107,820. C. F. SCHLICKEYSEN. STONE WORKING MACHINE.



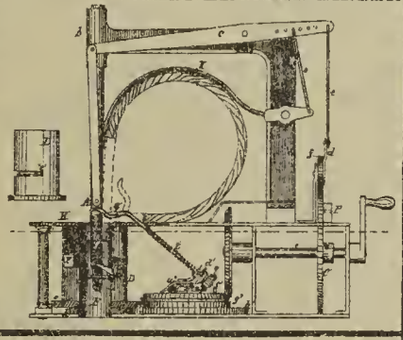
107,821. S. R. SCOGGINS. REFRIGERATOR.



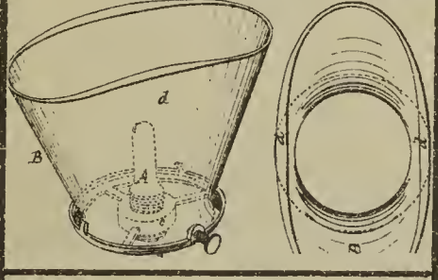
107,822. J. W. SCOTT. EXTENSION LADDER.



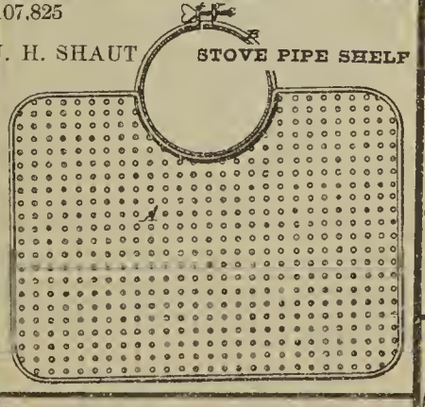
107,823. G. A. SCRIBNER. GRAIN BINDER.



107,824. I. W. SHALER. SHIELD FOR GAS BURNERS.



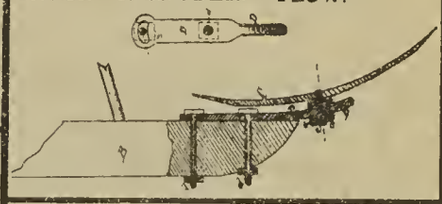
107,825. J. H. SHAUT. STOVE PIPE SHELF.



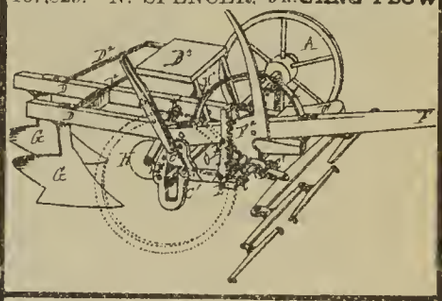
107,826. L. F. SMITH. LUBRICATOR.

107,827. W. H. SMITH. SHOVEL.

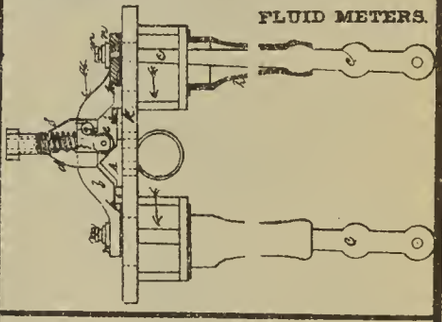
107,828. C. SNYDER. PLOW.



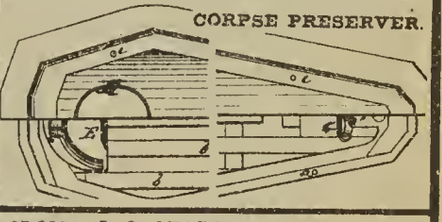
107,829. N. SPENCER, Jr. GANG PLOW.



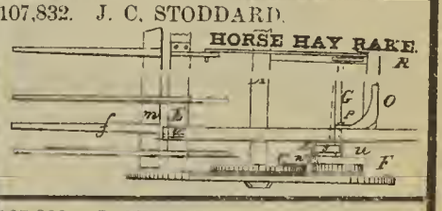
107,830. D. B. SPOONER. DEVICE FOR ACTUATING THE VALVES OF FLUID METERS.



107,831. S. STOCKTON AND J. SCHEPLER. CORPSE PRESERVER.

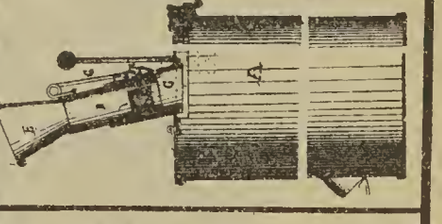


107,832. J. C. STODDARD. HORSE HAY RAKE.

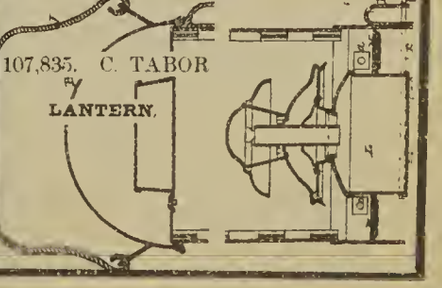


107,833. J. STUART. SEPARATING ANIMAL FROM VEGETABLE FIBRES.

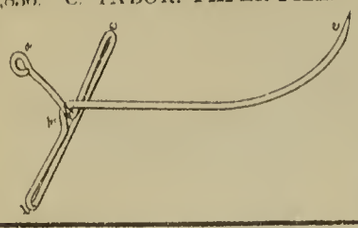
107,834. C. TABOR. MILK PAIL.



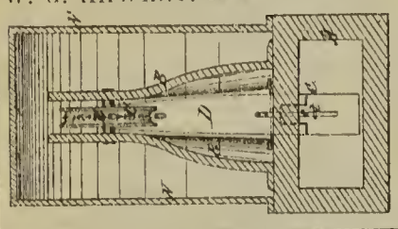
107,835. C. TABOR. LANTERN.



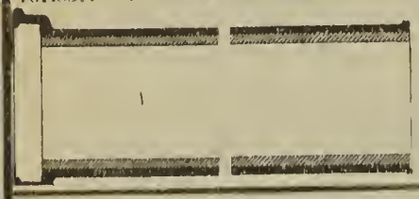
107,836. C. TABOR. PAPER FILE.



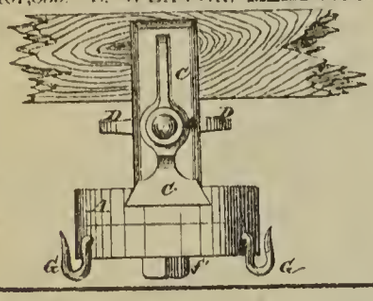
107,837. G. B. TERRY AND W. G. HAWLEY. CAR COUPLING.



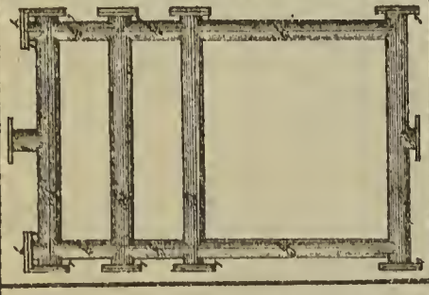
107,838. J. F. WARD. WATER PIPE.



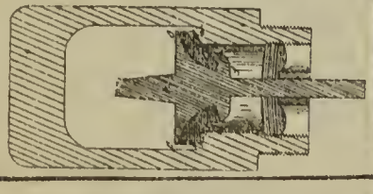
107,839. S. WEAVER. MEAT HOOK.



107,840. W. W. R. AND N. WESTON AND B. BRETT. STEAM GENERATOR.

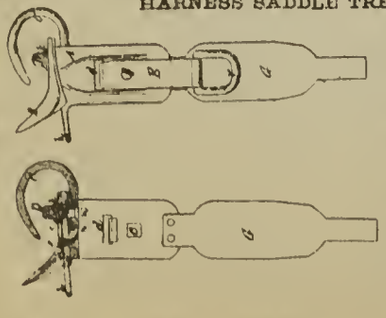


107,841 J. T. WHIPPLE. PUMP VALVE.

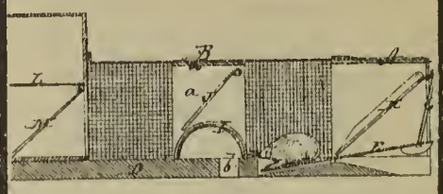


107,842. W. H. WHITING CARDING MACHINE TOOTH.

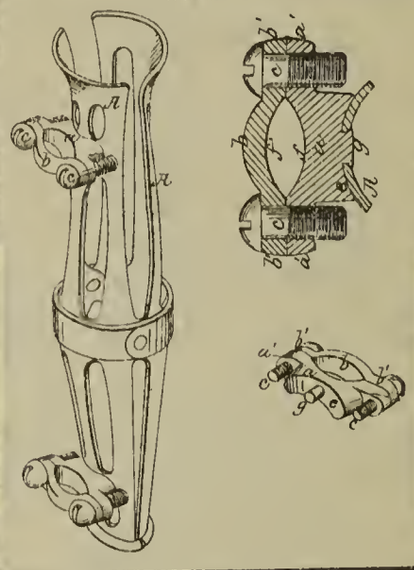
107,843. P. H. WIEDERSUM. HARNESS SADDLE TREE.



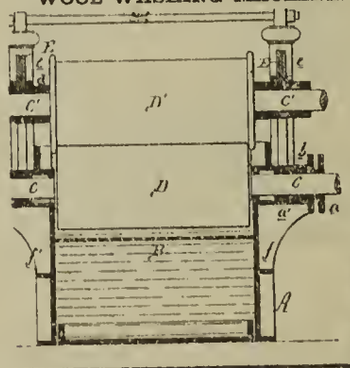
107,844. J. J. WOOD. ANIMAL TRAP.



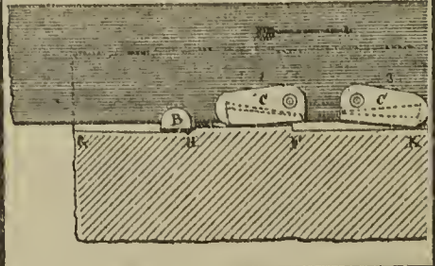
107,845. A. WORDEN. WHIP SOCKET CLASP.



107,846. J. AND W. YEWDALL. WOOL WASHING MACHINE.



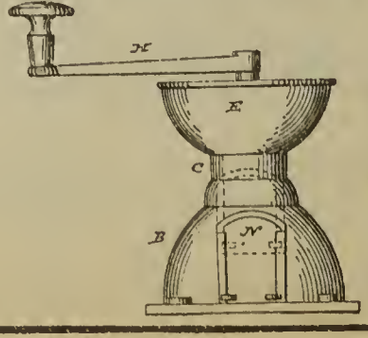
107,847. H. AND J. L. YOUNG. MACHINE FOR CUTTING STONE.



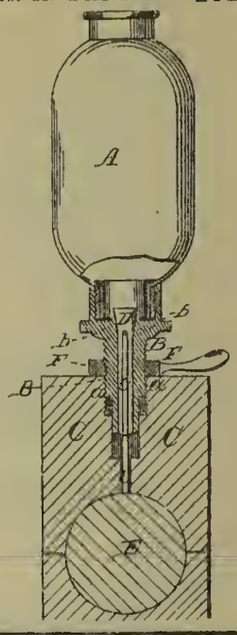
107,848. W. YOUNG AND P. BRASH. MANUFACTUREOF ILLUMINATING GAS

4,129. W. B. BRITTINGHAM. TANNING AND STUFFING LEATHER.

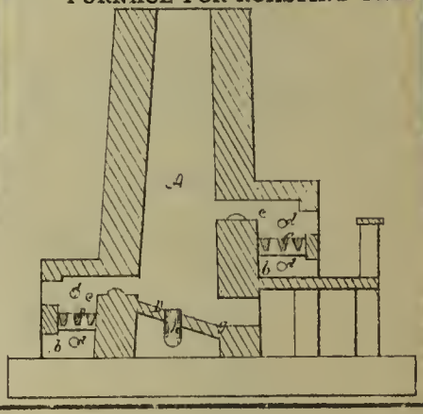
4,130. T. W. BROWN. COFFEE MILL.



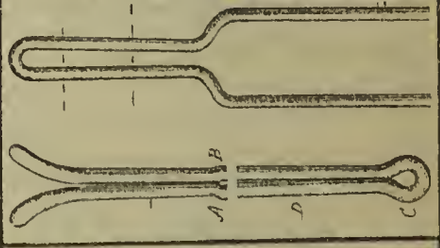
4,131. H. A. DANIELS. LUBRICATOR



4,132. E. P. HUDSON. FURNACE FOR ROASTING ORES.

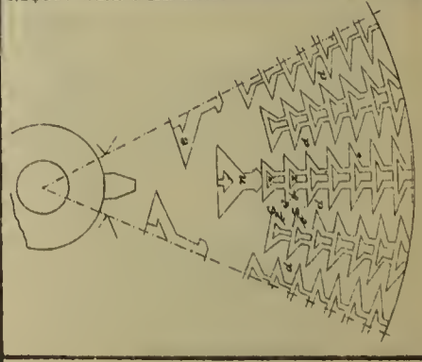


4,133. E. C. PATTERSON REIN HOLDER FOR CARRIAGES.

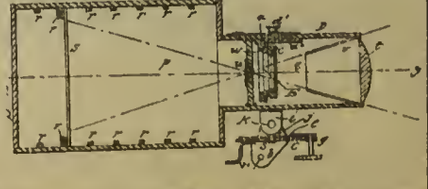


4,134. J. RILEY AND C. W. BISSELL. COMPOSITION FOR COVERING STEAM BOILERS, STEAM PIPES, &c.

4,135 J. SEDGEBEER MILLSTONE DRESS



4,136. W. H. MASTERS. SOLAR CAMERA



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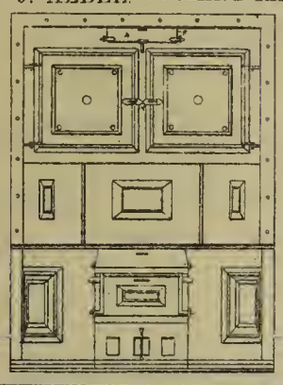
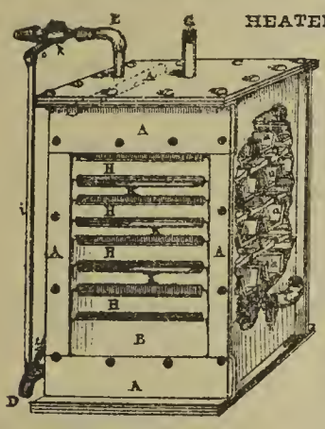
OCTOBER 4, 1870.

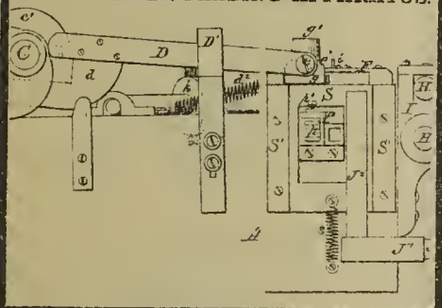
107,849. J. ALBEE. COOKING RANGE.



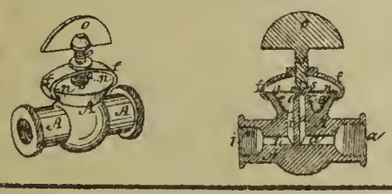
107,850. H. ANDERSON. FEED WATER HEATER.



107,851. J. T. ASHLEY. PAPER FEEDING APPARATUS.



107,852. W. E. BANTA. DIAPHRAGM STOP COCK.



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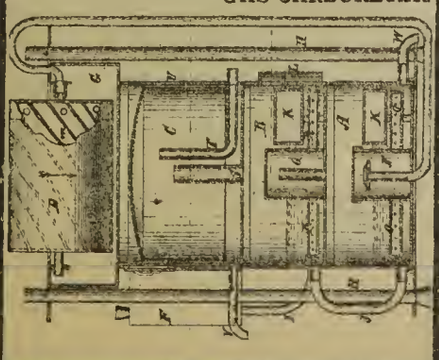
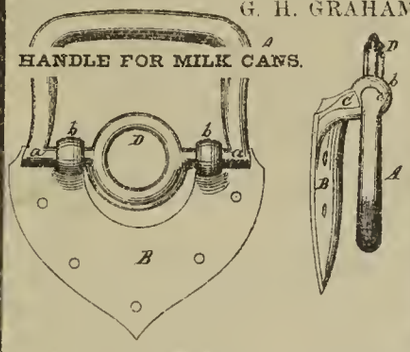
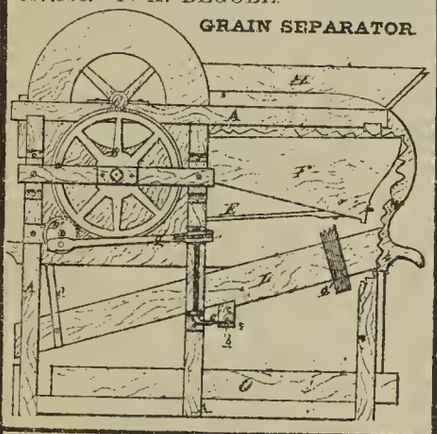


107,854. H. H. BEACH. PROCESS FOR SEASONING LUMBER.

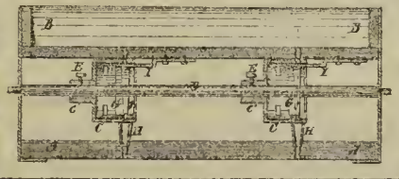
107,855. A. C. BECKWITH AND G. H. GRAHAM. HANDLE FOR MILK CANS.



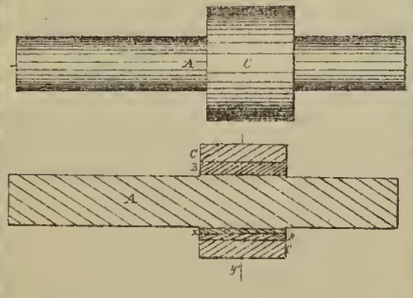
107,856. F. A. BEGOLE. GRAIN SEPARATOR.



107,857. H. C. BESHLER. CORN PLANTER.

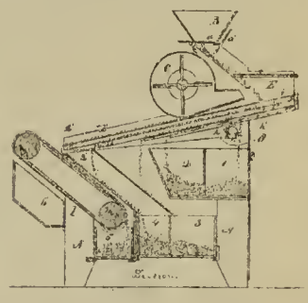


107,858. E. S. BLAKE. ROLL FOR CRUSHING AND PULVERIZING MACHINES.



107,859. D. J. BLASIR. SNAP HOOK.

107,860. N. M. BOWEN. GRAIN AND SEED CLEANER.



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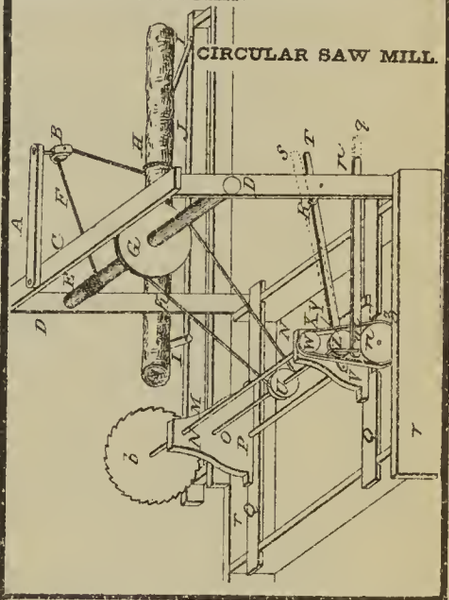
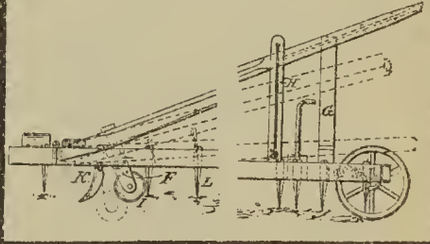
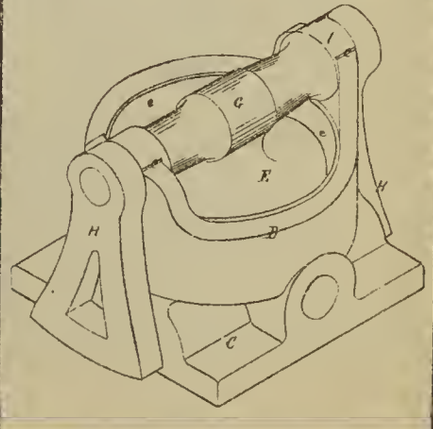


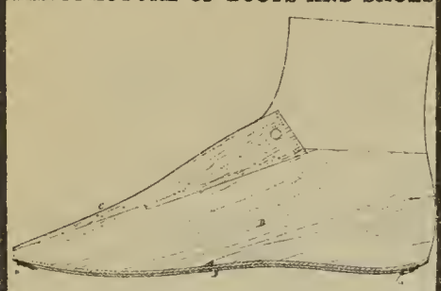
107,862. J. F. BRAUCHER. COMBINED PLOW AND HARROW.



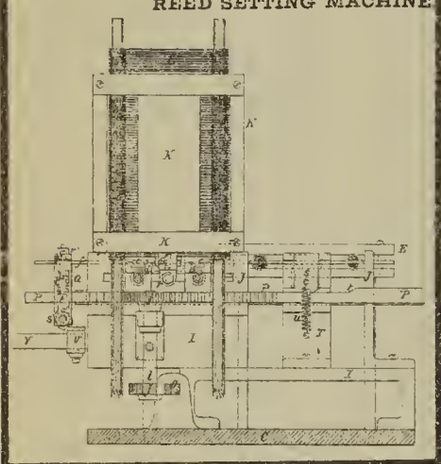
107,863. G. B. BRAYTON. SLIDE VALVE.



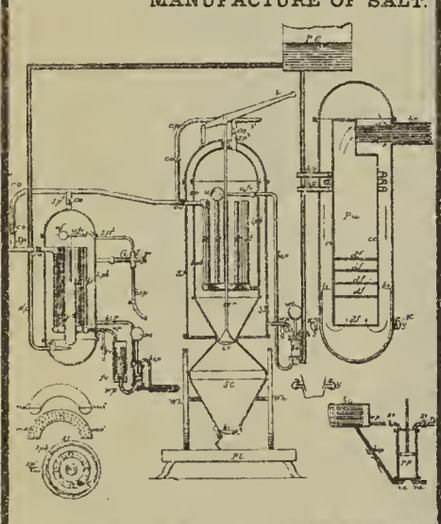
107,864. W. N. BROOKHOUSE.
MANUFACTURE OF BOOTS AND SHOES



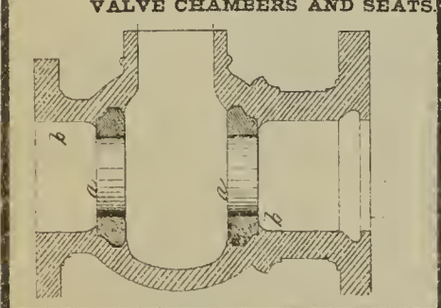
107,865. J. BROWNING.
REED SETTING MACHINE.



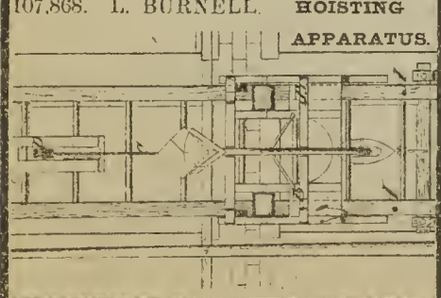
107,866. J. R. BUCHANAN.
MANUFACTURE OF SALT.



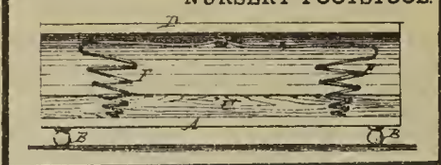
107,867. J. K. BURKE. CASTING
VALVE CHAMBERS AND SEATS.



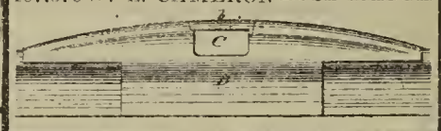
107,868. L. BURNELL. HOISTING
APPARATUS.



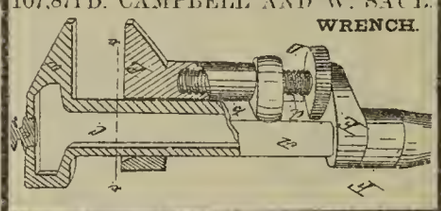
107,869. L. BURNELL.
NURSERY FOOTSTOOL.



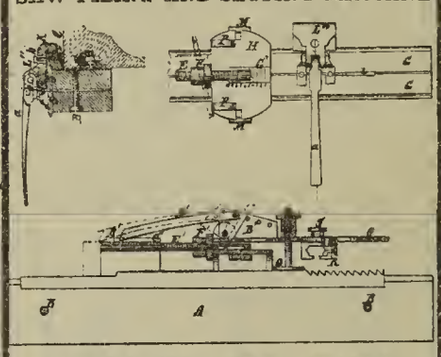
107,870 W. E. CAMERON HOSE BRIDGE.



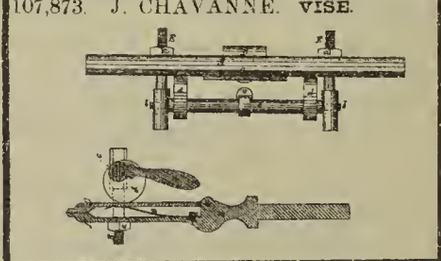
107,871 D. CAMPBELL AND W. SAUL.
WRENCH.



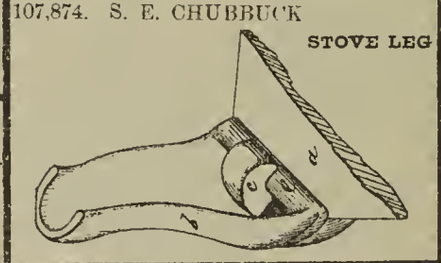
107,872. H. D. CHANCE AND D. RISHE
SAW FILING AND SETTING MACHINE.



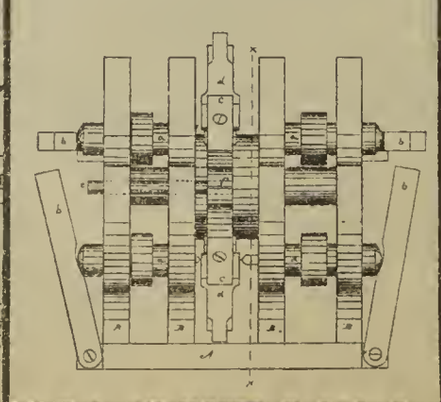
107,873. J. CHAVANNE. VISE.



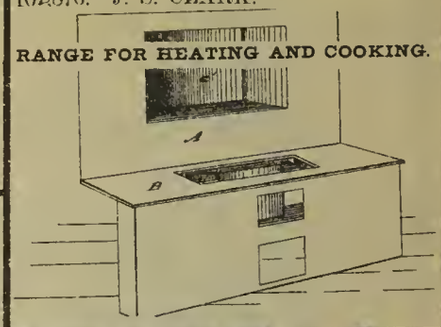
107,874. S. E. CHUBBUCK
STOVE LEG



107,875. J. B. CLARK MACHINE FOR
DRILLING CARRIAGE SHACKLES.



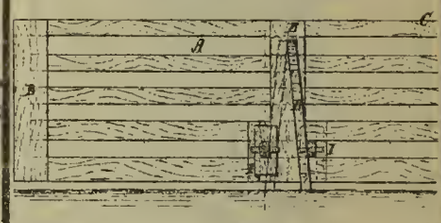
107,876. J. S. CLARK.
RANGE FOR HEATING AND COOKING.



107,877 H. W. CLOUD
MEDICAL COMPOUND.

107,878. J. COMMINS.
MANUFACTURE OF FERTILIZERS.

107,879 J. COMSTOCK. FENCE.



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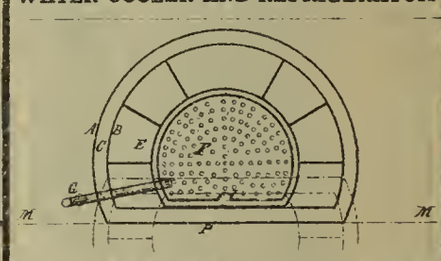
WATER COOLER AND REFRIGERATOR.



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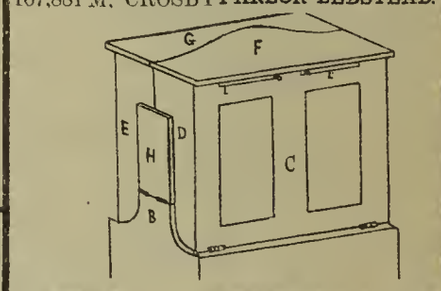
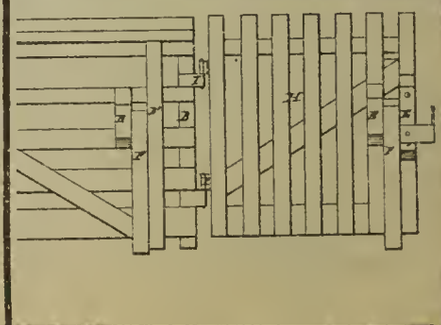
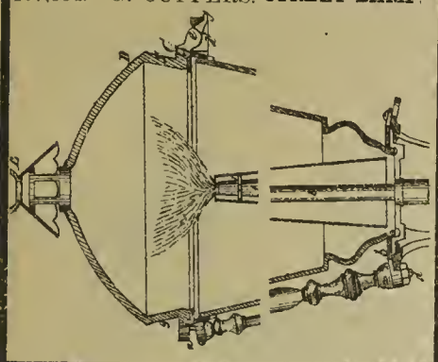


107,882. A. H. CROZIER AND
M. TAYLOR ROULETTE.

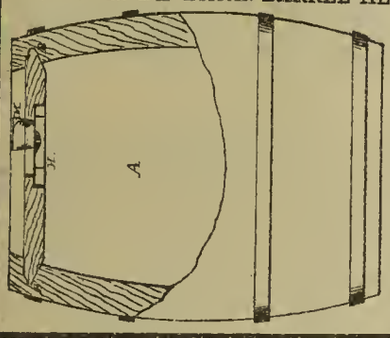
107,883. W. CRUMB PORTABLE FENCE.



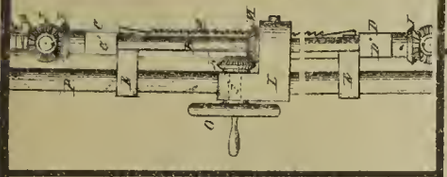
107,884. G. CUPPERS. STREET LAMP.



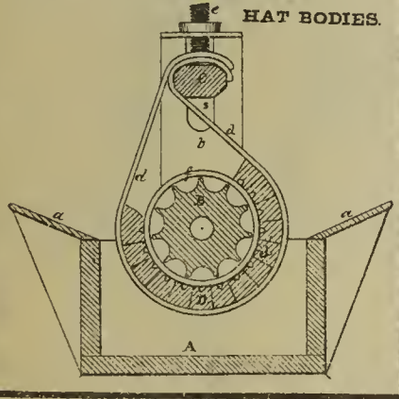
107,885. R. DE BARE. BARREL HEAD.



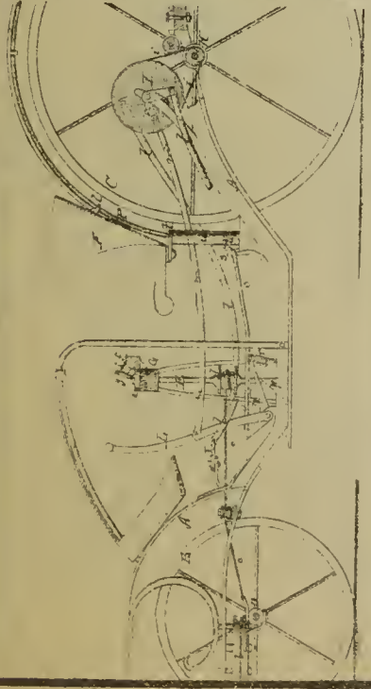
107,886. J. A. DORR. SAW MILL.



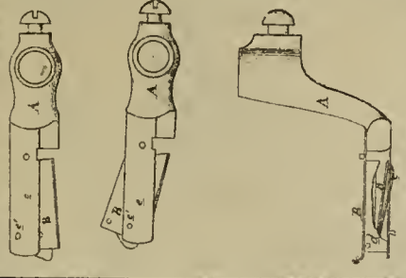
107,887. J. T. EARLE. MACHINE FOR FELTING AND HARDENING HAT BODIES.



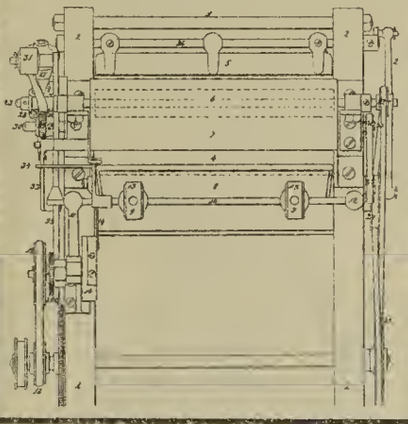
107,888. J. EGGERT. VELOCIPEDE.



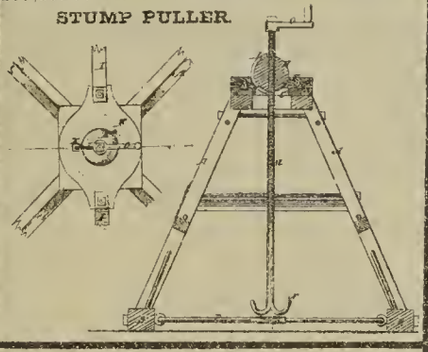
107,889. J. V. D. ELDREDGE. HEMMER FOR SEWING MACHINES.



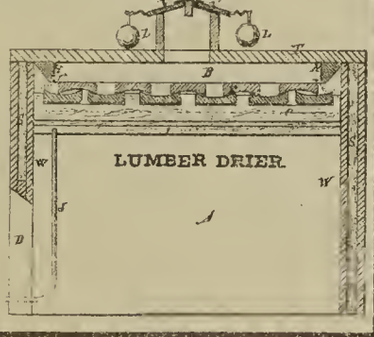
107,890P. C. EVANS AND H. J. H. KING WEIGHING ATTACHMENT FOR CARDING MACHINE FEEDERS.



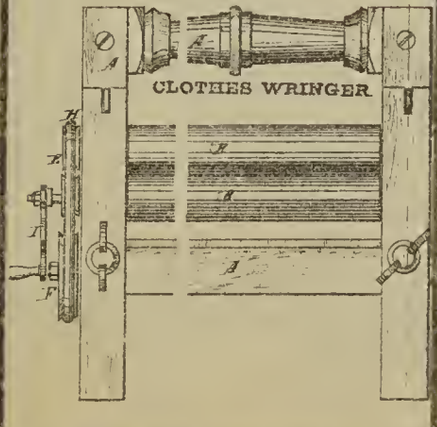
107,891 J. M. FERGUSON STUMP PULLER.



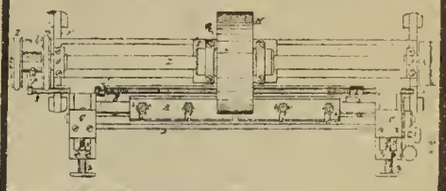
107,892. R. E. FERGUSON. LUMBER DRIER.



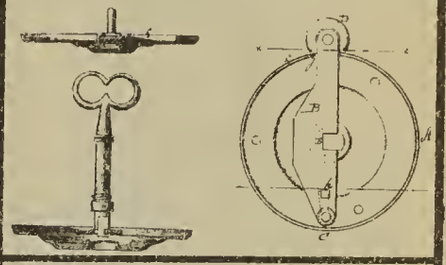
107,893. R. E. FERGUSON CLOTHES WRINGER.



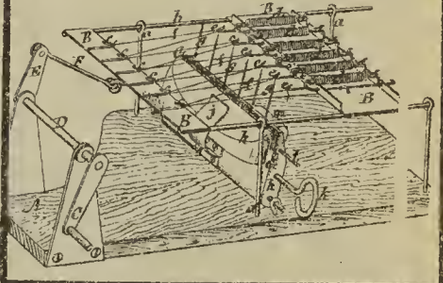
107,894. E. S. M. FERNALD. KNIFE GRINDING MACHINE.



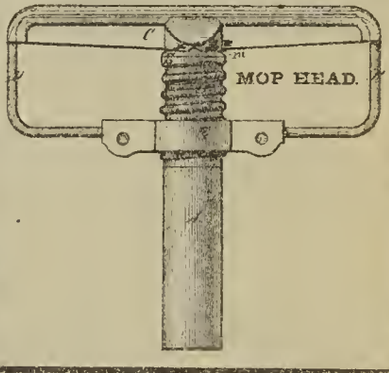
107,895. J. W. FIFIELD SAFETY LATCH.



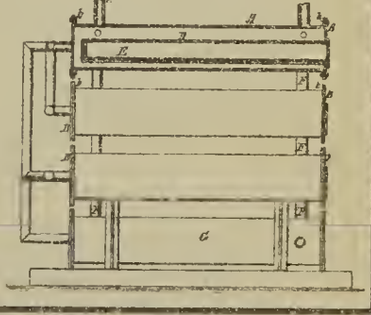
107,896. T. FOWLER. MACHINE FOR POLISHING THE EYES OF SEWING MACHINE NEEDLES.



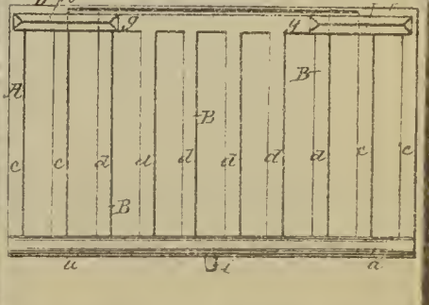
107,897. O. S. AND J. G. GARRETSON. MOP HEAD.



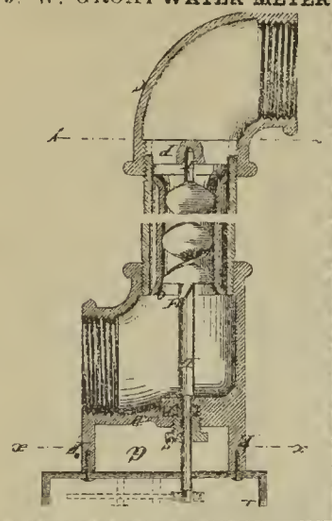
107,898. J. F. GESNER. MANUFACTURE OF ICE.



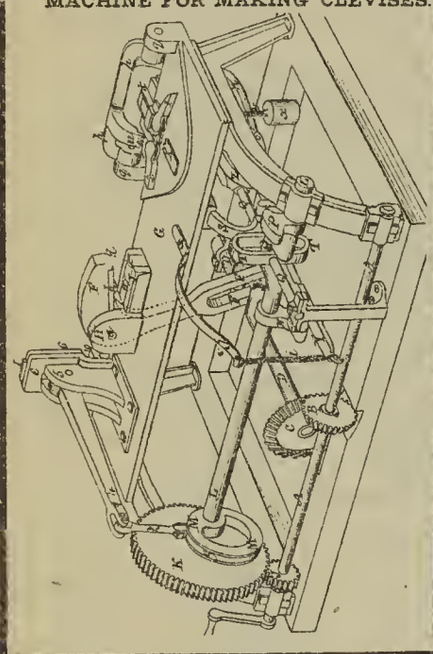
107,899. F. GLICK AND C. KECK GRATE.



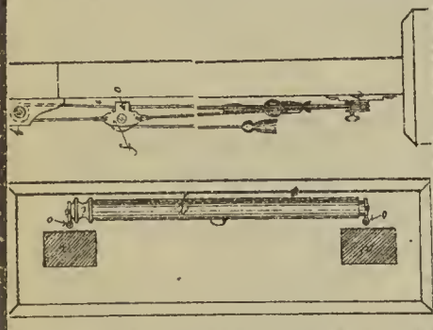
107,900. J. W. GROAT WATER METER



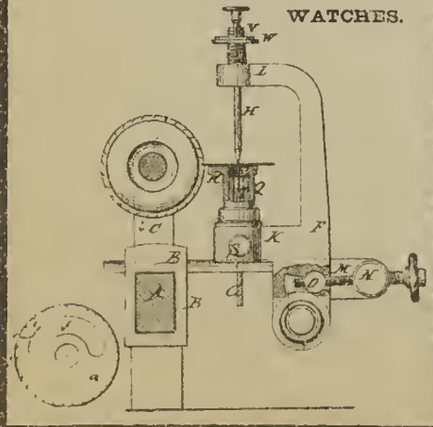
107,901. J. S. HALL. MACHINE FOR MAKING CLEVISES.



107,902. E. W. HASTINGS. ADJUSTABLE WINDOW SHADE.

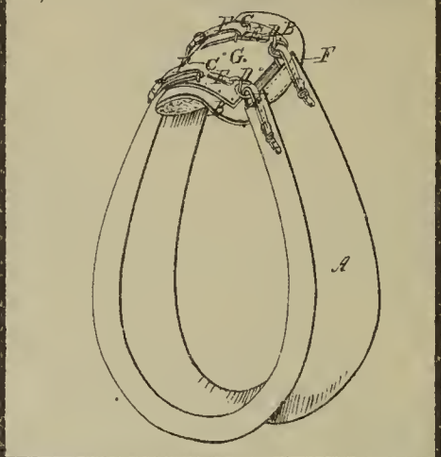


107,903 J. L. HATHAWAY MACHINE FOR FINISHING WHEELS FOR WATCHES.

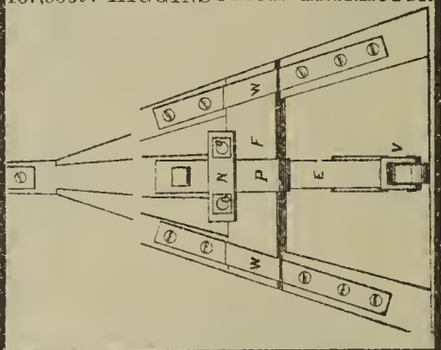


107,904 J. R. HAYES. PRESERVING WOOD

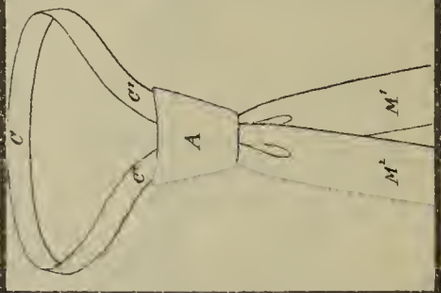
107,905. I. HICKS HORSE COLLAR TOP



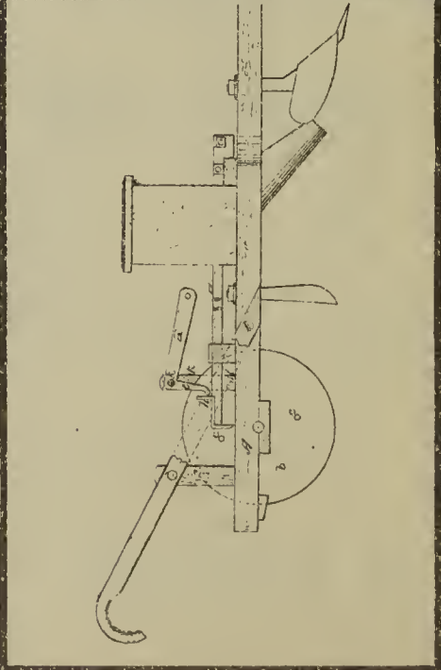
107,906 J. HIGGINS STUMP EXTRACTOR



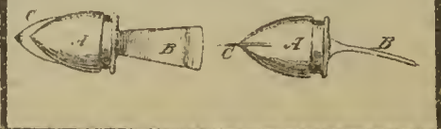
107,907. J. G. HITCHCOCK. NECKTIE.



107,908 H. R. HOLLAND CORN PLANTER

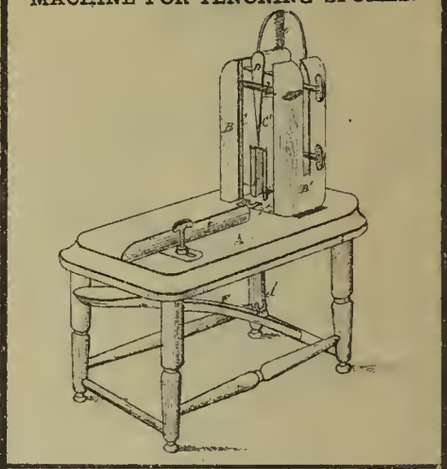


107,909. J. G. HOPE. PROJECTILE.

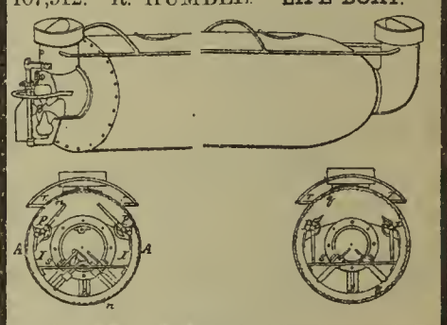


107,910. J. E. HOVER. CEMENT FOR PAVING AND BUILDING.

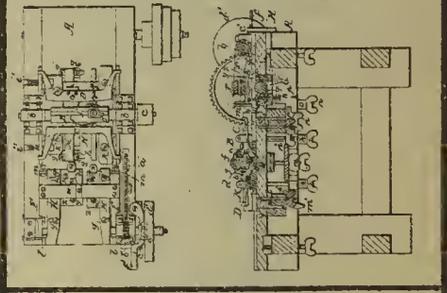
107,911. J. W. HUFFMAN. MACHINE FOR TENONING SPOKES.



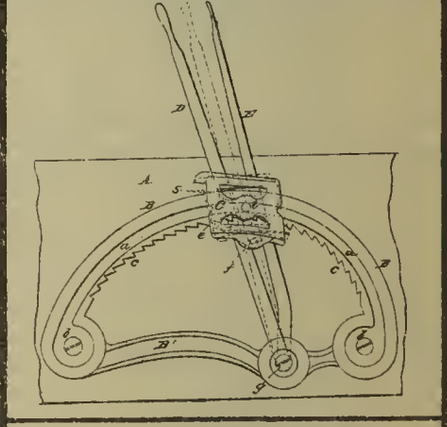
107,912. R. HUMBLE. LIFE BOAT.



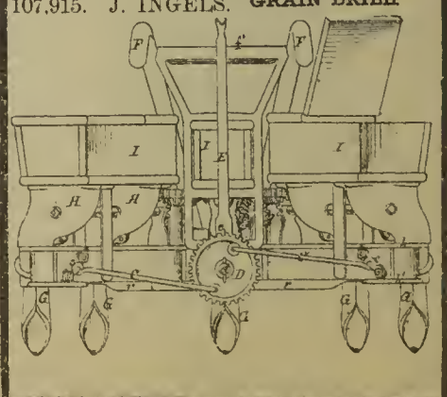
107,913. E. S. HUNT. MACHINE FOR MAKING FAN STICKS.



107,914. S. S. HURLBUT WAGON LOCK

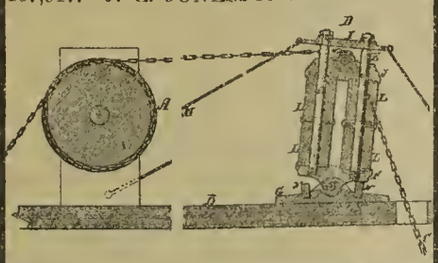


107,915. J. INGELS. GRAIN DRILL.

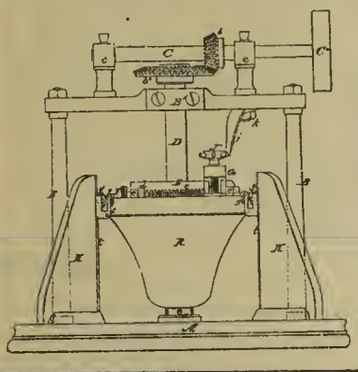


107,916. H. B JAMES
MAINSPRING BARREL OF WATCHES.

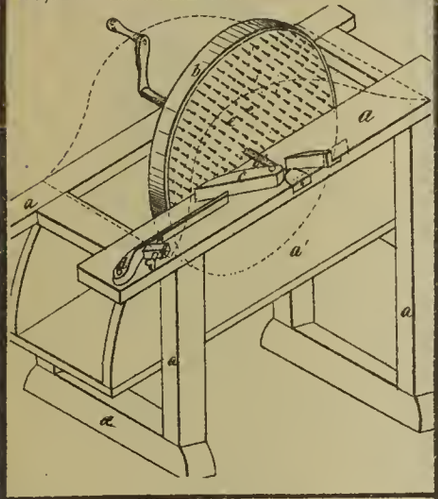
107,917. J. E. JONES SURGE RELIEVER



107,918. O. JONES. MACHINE FOR TURNING OR PLANING THE INSIDE OF BELLS OR OTHER CASTINGS

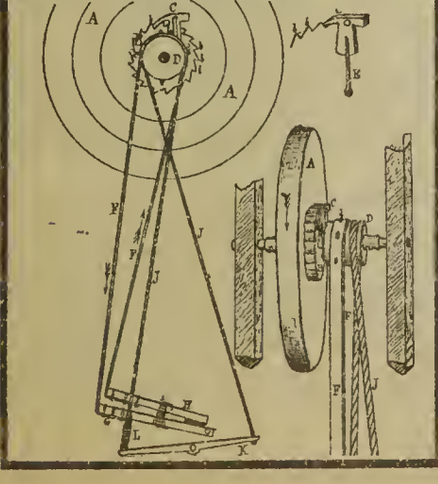


107,919. E. JORDAN. CORN SHELLER.

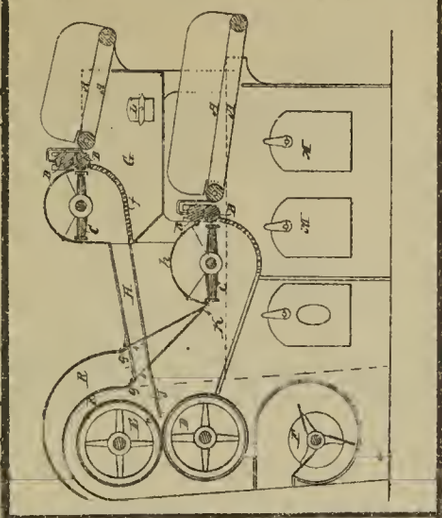


107,920. J. W. KENNY AND J. H. ADAMS. HAIR CURLER

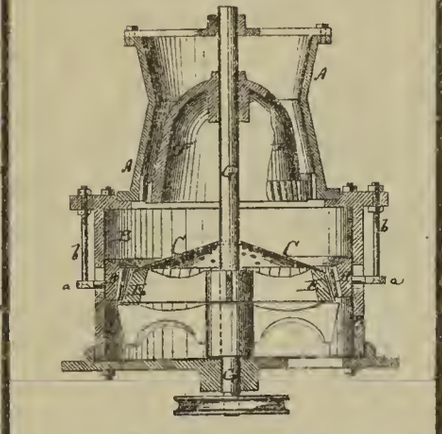
107,921 G. B. KIRKHAM TREADLE FOR SEWING AND OTHER MACHINERY.



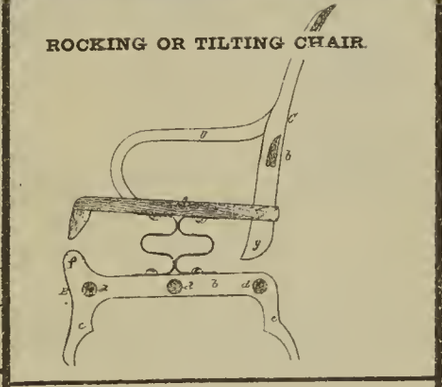
107,922. R. KITSON. COTTON OPENER



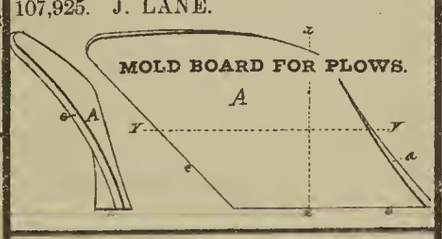
107,923. C. KORN. BARK MILL.



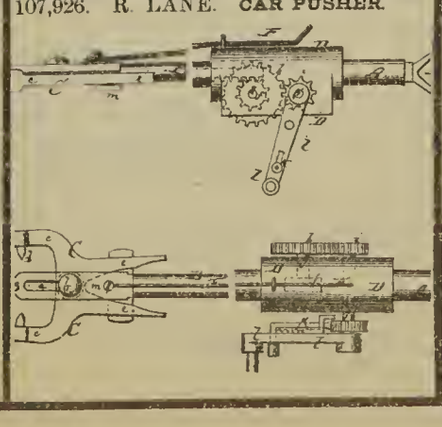
107,924. J. LAMB.
ROCKING OR TILTING CHAIR.



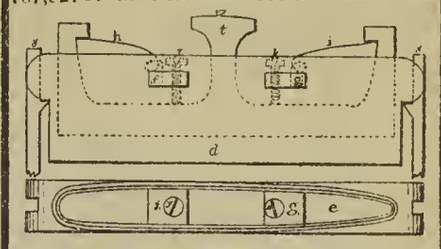
107,925. J. LANE.
MOLD BOARD FOR PLOWS.



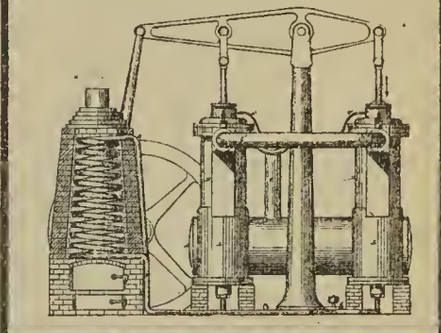
107,926. R. LANE. CAR PUSHER.



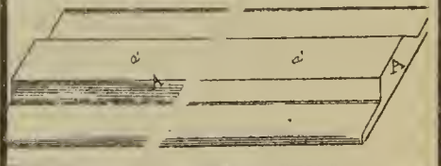
107,927 J. LAURITZEN CIGAR MACHINE



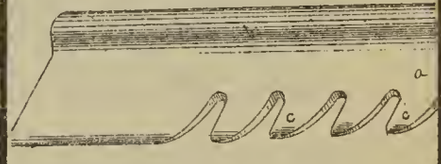
107,928. C. P. LEAVITT HOT AIR ENGINE.



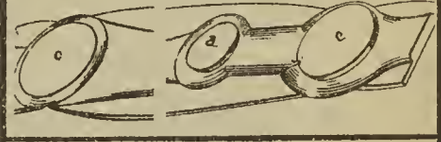
107,929. W. J. LEWIS HAMMER STRAP



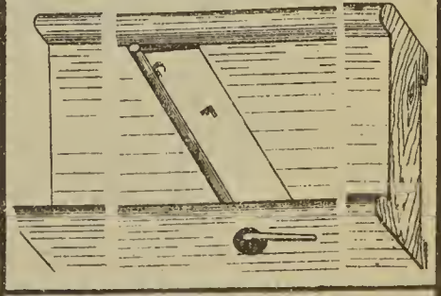
107,930. W. J. LEWIS.
RACK FOR WAGON BRAKES



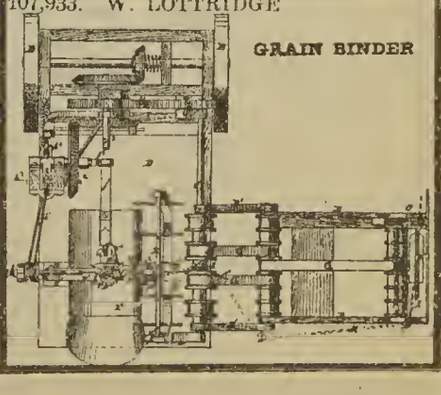
107,931. W. J. LEWIS BLANK FOR HAMMER STRAPS FOR WAGONS.



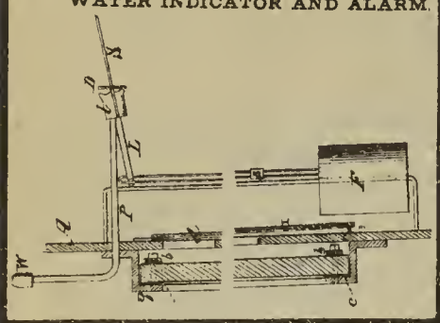
107,932. P. H. LINDSEY.
MEAT AND VEGETABLE SLICER.



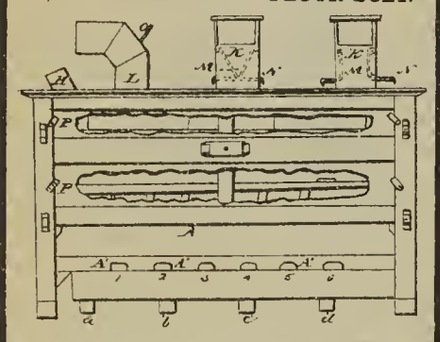
107,933. W. LOTTRIDGE
GRAIN BINDER



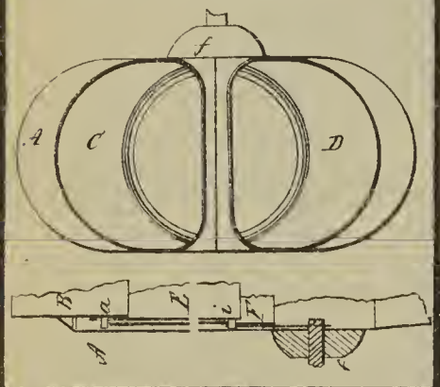
107,934. M. N. LYNN.
WATER INDICATOR AND ALARM.



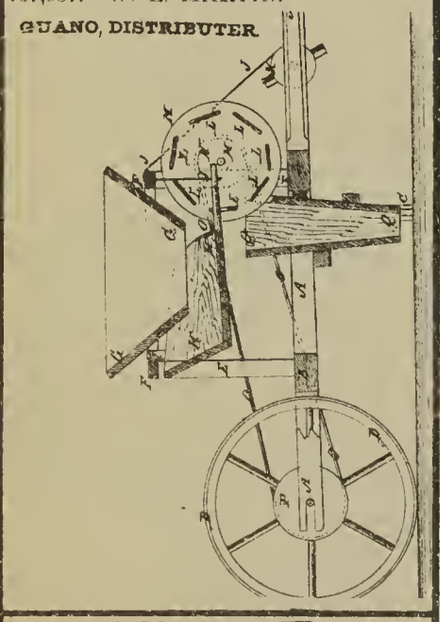
107,935. J. MALLIN. FLOUR BOLT.



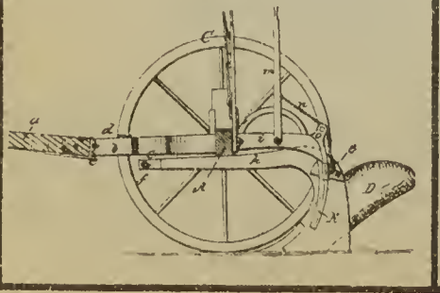
107,936. J. R. MANNY.
WATER CUT-OFF FOR CISTERNS.



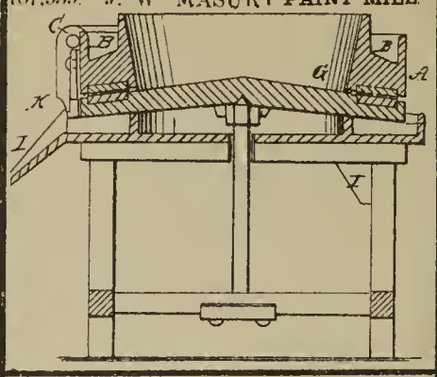
107,937. W. E. MARTIN.
GUANO, DISTRIBUTER.



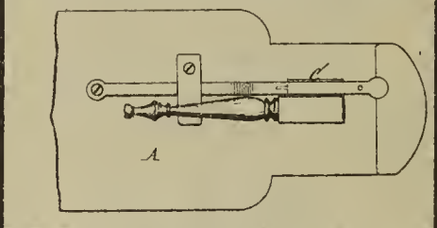
107,938. H. W. MASON. SULKY PLOW.



107,939. J. W. MASURY PAINT MILL.

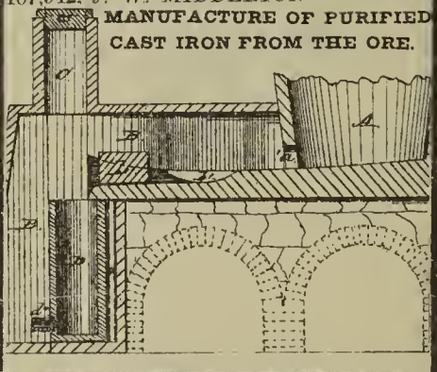


107,940H. McCHESNEY IRONING TABLE.

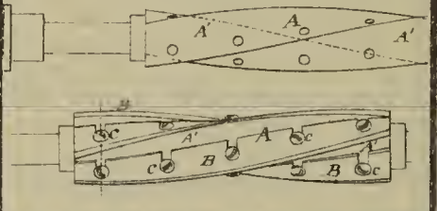


107,941 W. T. MERSEREAU STAIR ROD.

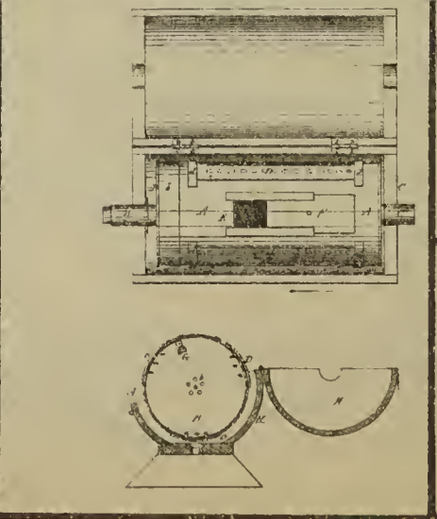
107,942. J. W. MIDDLETON
MANUFACTURE OF PURIFIED CAST IRON FROM THE ORE.



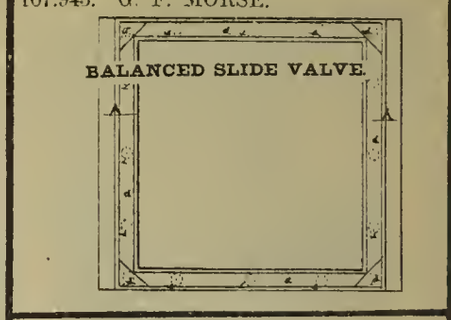
107,943. J. MORE.
CUTTER HEAD FOR PLANERS.



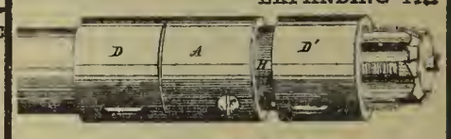
107,944. M. K. MORRIS.
FEATHER RENOVATOR.



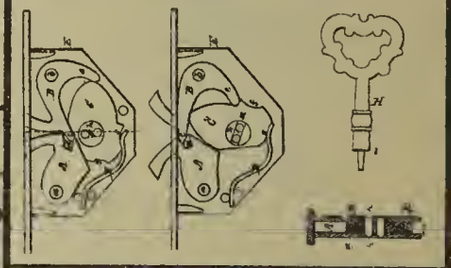
107,945. G. F. MORSE.
BALANCED SLIDE VALVE.



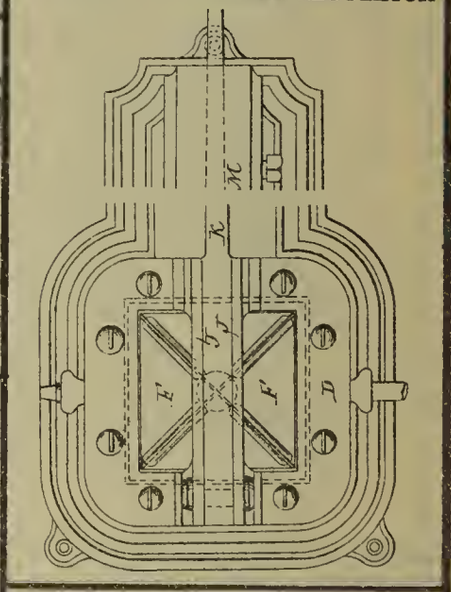
107,946. F. MURGATROYD.
EXPANDING TAP.



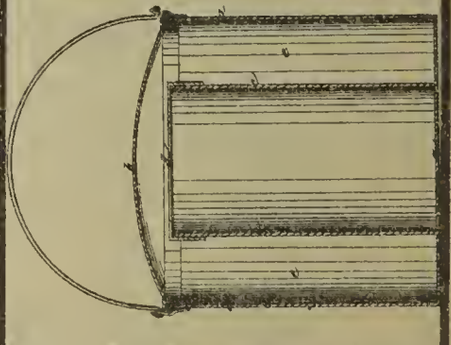
107,947. J. MURPHY. PIANO LOCK.



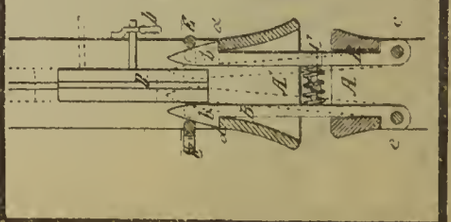
107,948. J. H. MURRILL.
DAMPER REGULATOR.



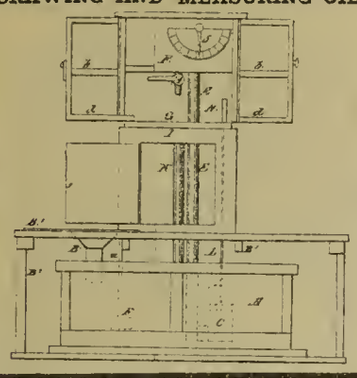
107,949. G. A. NASH. ICE CREAM PAIL.



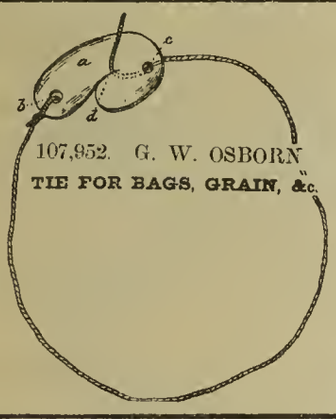
107,950. N. NORRIS
RAILWAY CAR COUPLING.



107,951. P. NOYES. APPARATUS FOR DRAWING AND MEASURING OIL.

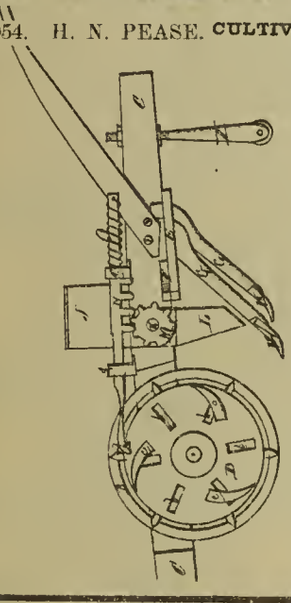


107,952. G. W. OSBORN TIE FOR BAGS, GRAIN, &c.

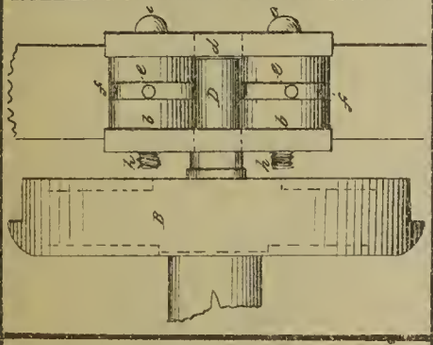


107,953. J. S. PARSONS. WIRE.

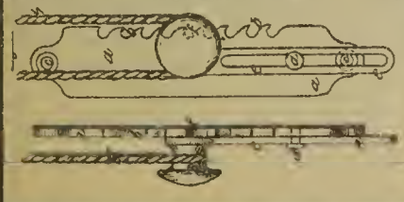
107,954. H. N. PEASE. CULTIVATOR.



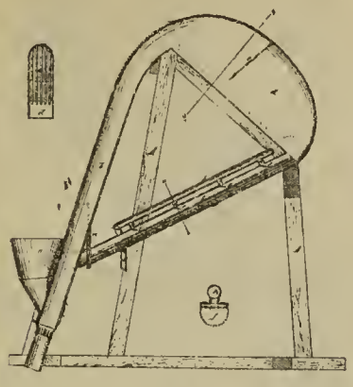
107,955. J. PENCILLE. FRICTION ROLLER FOR RAILWAY CAR TRUCKS.



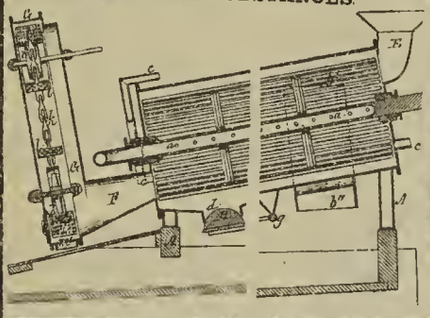
107,956. F. G. PEOBLE. CURTAIN FIXTURE.



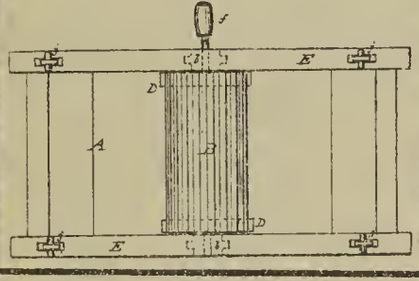
107,957. E. PLATT. APPARATUS FOR WASHING ORES AND MINERALS.



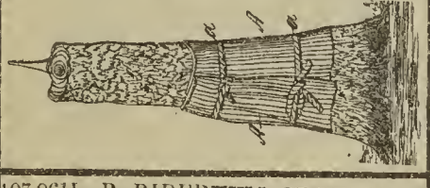
107,958. J. B. PLATT. MACHINE FOR WASHING ORES AND OTHER MINERAL SUBSTANCES.



107,959. C. M. POWERS AND T. L. ROBINSON. WASHING MACHINE.

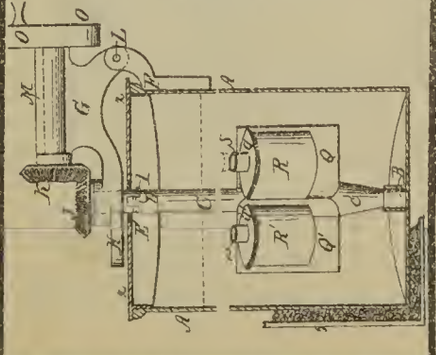


107,960. D. R. PRINDLE. TREE AND PLANT PROTECTOR.

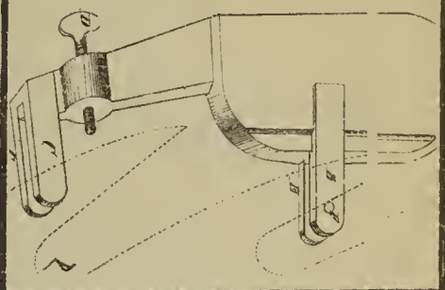


107,961. L. P. RIDER. HULL OF VESSELS.

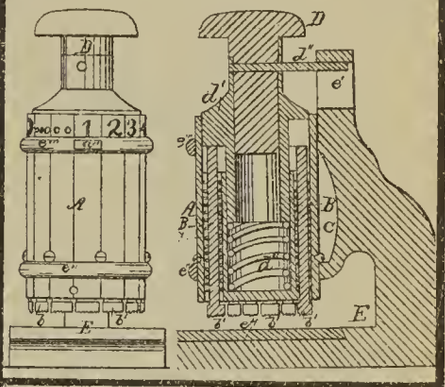
107,962. M. ROSENSTEIN. MANUFACTURE OF ICE.



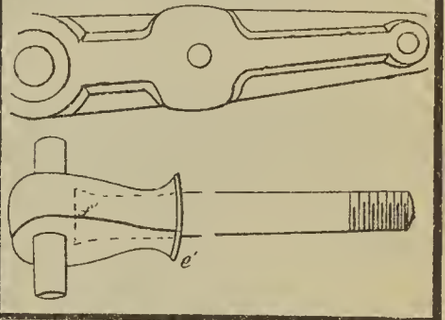
107,963. W. H. RUDOLPH. DEVICE FOR SPREADING CIRCULAR SAW TEETH.



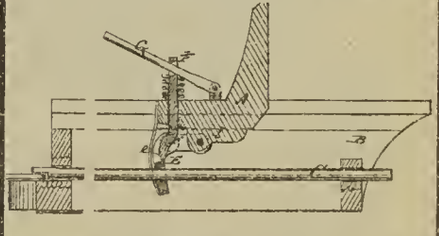
107,964. H. W. SAFFORD. HAND STAMP.



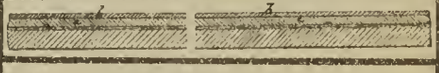
107,965. S. SELDEN AND M. GRISWOLD. LINK CONNECTING THE HANDLES AND VALVE RODS OF PUMPS.



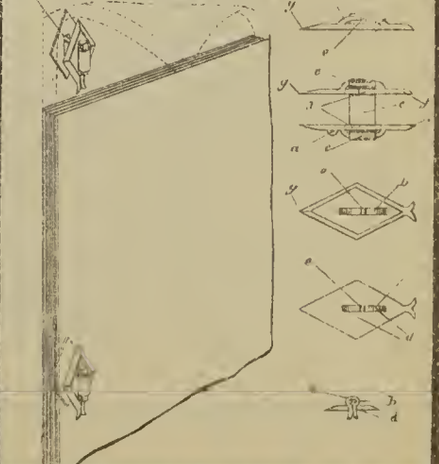
107,966. F. W. SHELLEY. HEAD BLOCK FOR SAW MILLS.



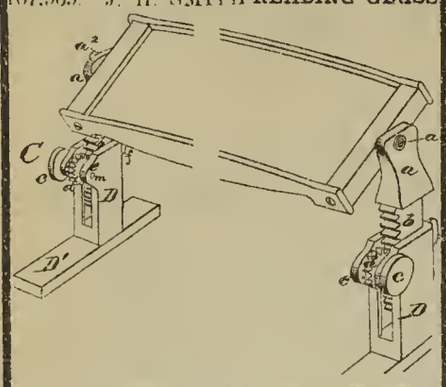
107,967. G. SHOVE. ROOFING.



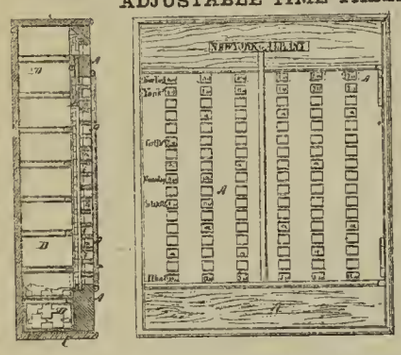
107,968. F. M. SMITH. TEMPORARY PAPER BINDER.



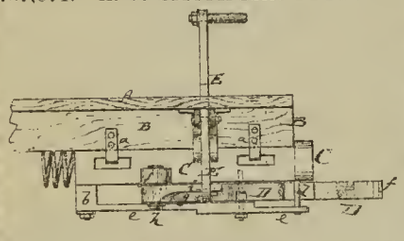
107,969. J. H. SMITH READING GLASS.



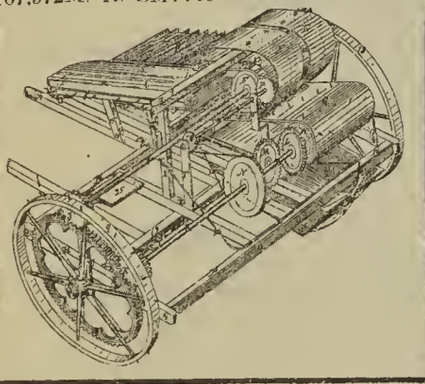
107,970. L. J. SMITH ADJUSTABLE TIME TABLE.



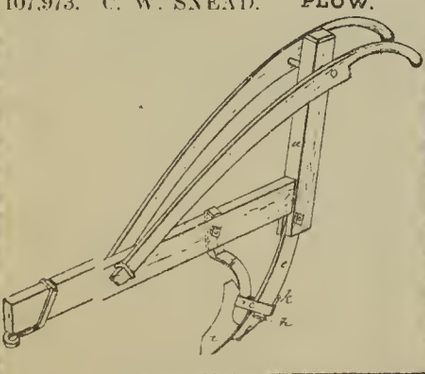
107,971. L. J. SMITH CAR COUPLING.



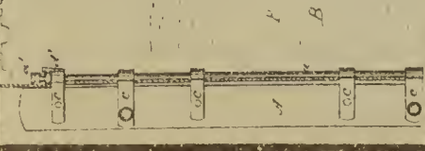
107,972M. A. SMITH CORN HARVESTER



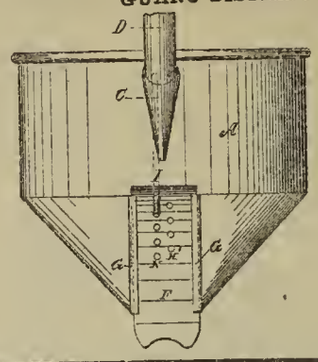
107,973. C. W. SNEAD. PLOW.



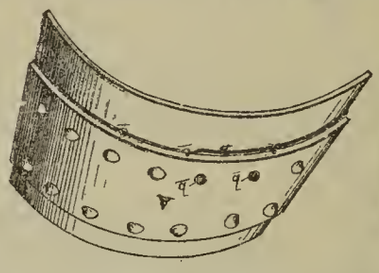
107,974. W. A. AND H. E. STARRETT DEVICE FOR ATTACHING STEELS TO CORSETS.



107,975 E. R. STEDMAN GUANO DISTRIBUTER.

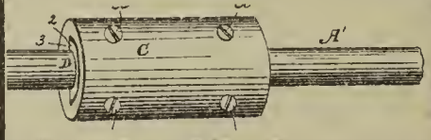


107,976. H. J. STEIN CONSTRUCTION OF STEAM BOILERS AND TANKS.

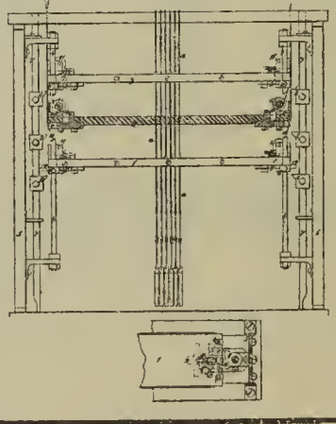


107,977. C. L. STEVENS STEAM PUMP.

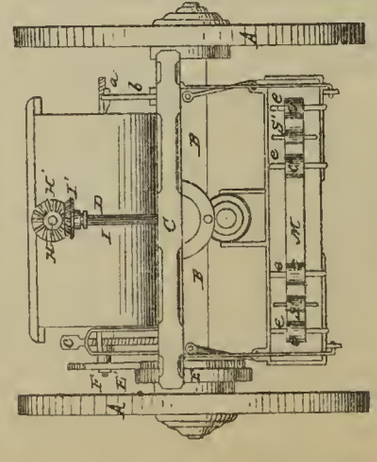
107,978. T. F. TAFT SHAFT COUPLING.



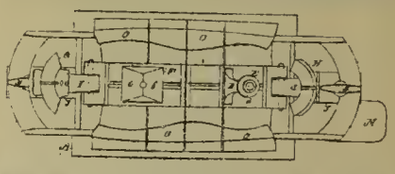
107,979. J. S. TEMPLETON MECHANISM FOR OPERATING COMBER BOARDS.



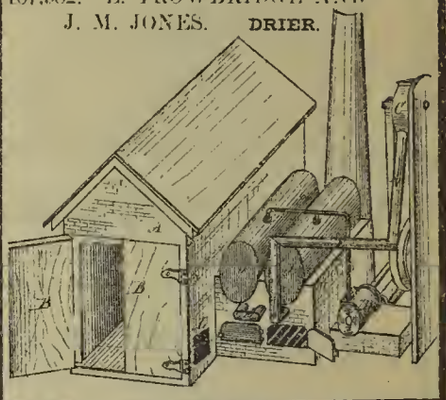
107,980. G. M. THIRKITTLE GRAIN AND SEED DRILL.



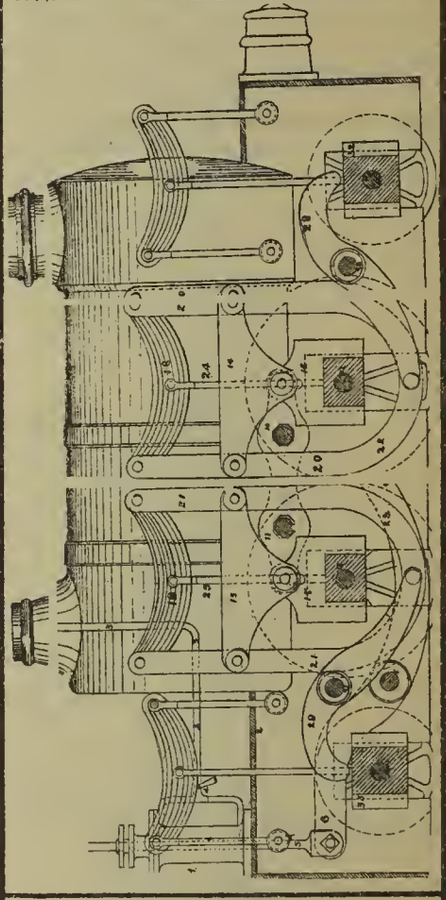
107,981. C. H. TRASK MACHINE FOR LASTING SHOES.



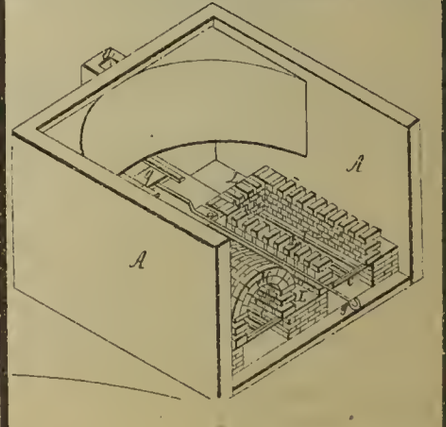
107,982. E. TROWBRIDGE AND J. M. JONES. DRIER.



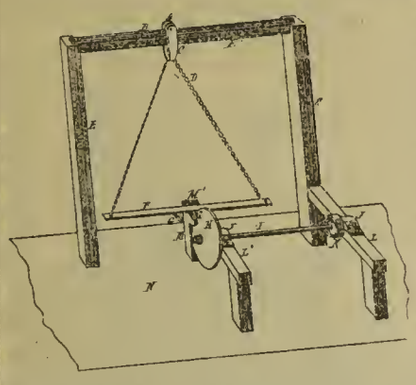
107,983. J. M. URE. LOCOMOTIVE.



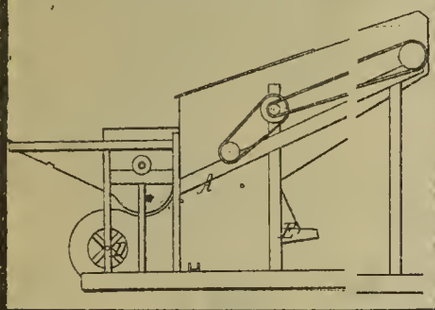
107,984. J. VALE ROTARY BAKE OVEN



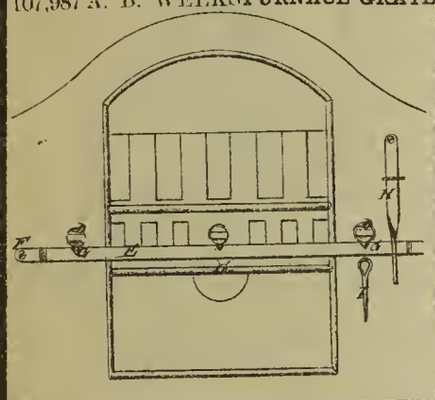
107,985. S. O. AND P. W. VAUGHAN
GRINDER FOR HARVESTER CUTTERS.



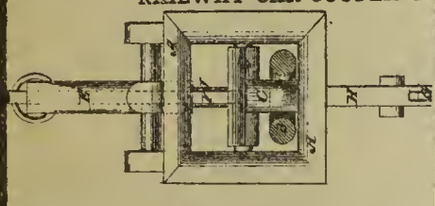
107,986. A. A. WALKER.
THRASHER AND SEPARATOR.



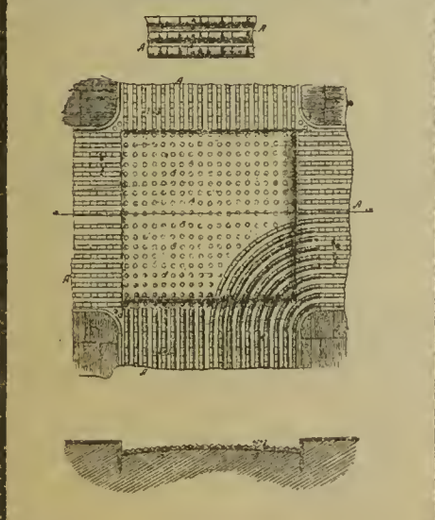
107,987 A. B. WEEKS FURNACE GRATE



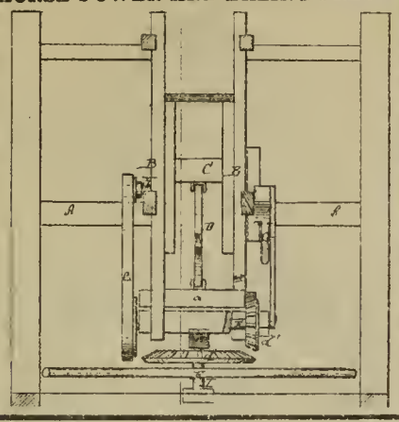
107,988. G. W. WHEAT.
RAILWAY CAR COUPLING.



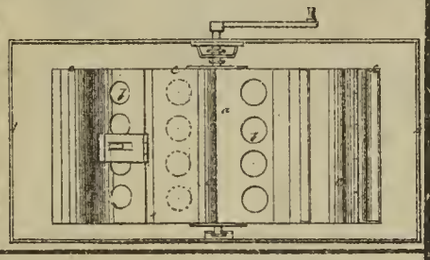
107,989. G. WILKES.
CORRUGATED METALLIC PAVEMENT.



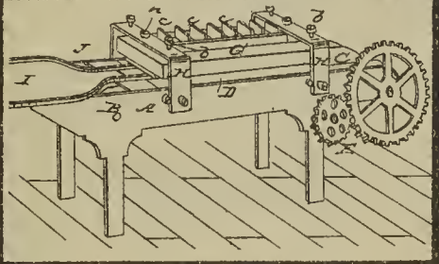
107,990. C. A. WRIGHT COMBINED
HORSE POWER AND BALING PRESS.



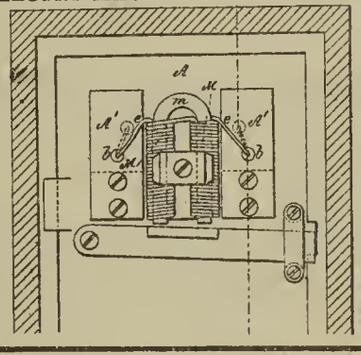
107,991 G. WRIGHT WASHING MACHINE



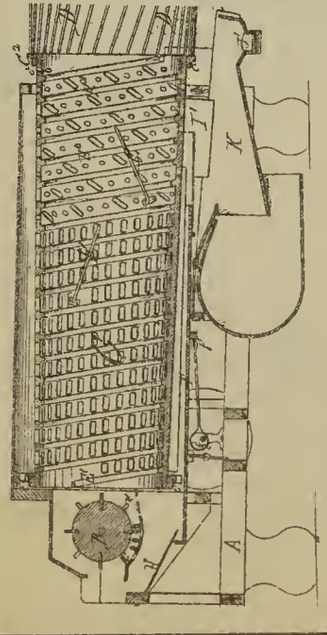
107,992. W. S. WRIGHT TYPE PLANER



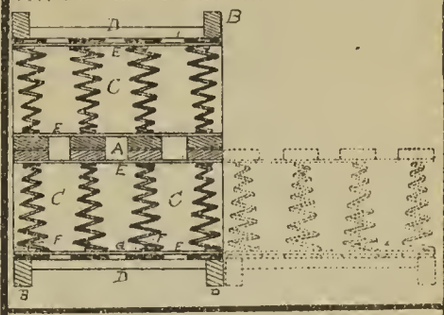
107,993. C. O. YALE
ELECTRO MAGNETIC SAFE LOCK.



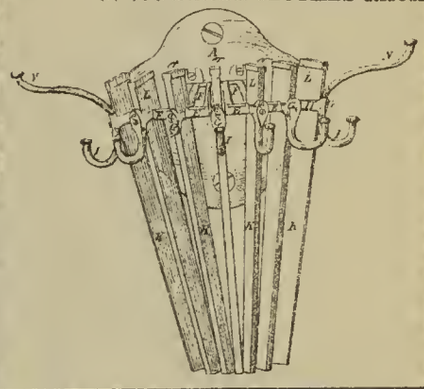
107,994. J. ALLONAS.
THRASHING MACHINE.



107,995. L. ANDERSEN SPRING BED.

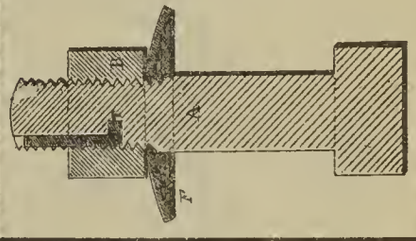


107,996. H. BAUMAN AND
U. MUELLER CLOTHES RACK.

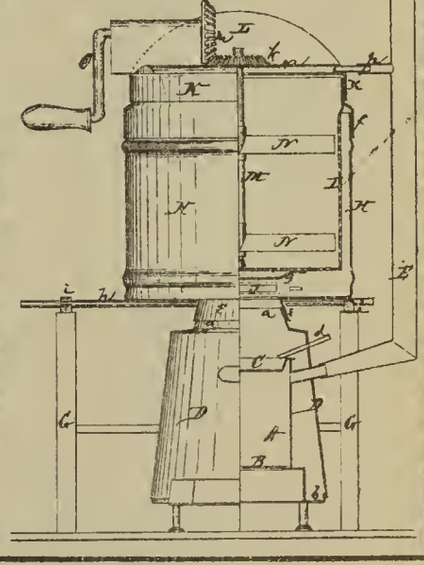


107,997. F. BECK. COMPOUND FOR
COLORING PAPER AND OTHER FABRICS

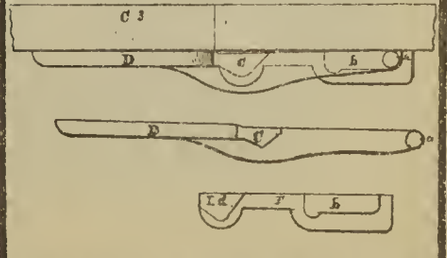
107,998. J. BELL. NUT LOCK.



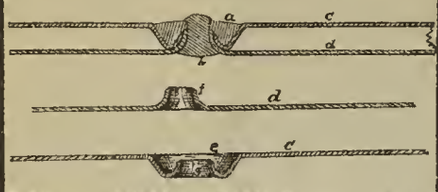
107,999. E. BICKELL AND
M. V. NORACONK.
FEATHER RENOVATOR.



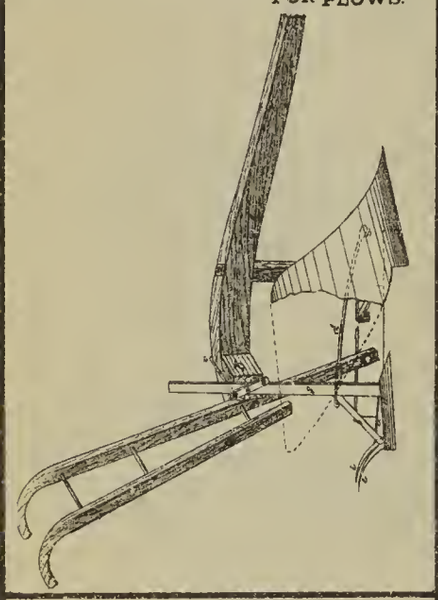
108,000. J. BLAKE.
AUXILIARY TABLE ATTACHMENT



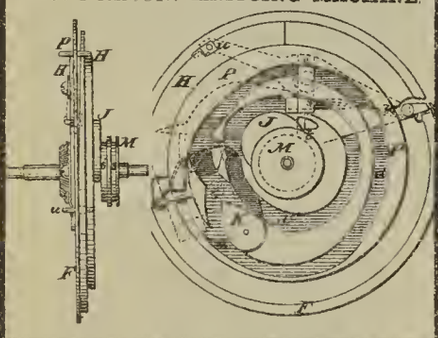
108,001. E. BOURNE. RADIATOR.



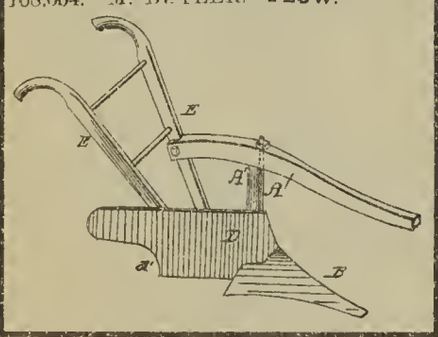
108,002. L. E. BURDIN. SUBSOIL PULVERIZING ATTACHMENT FOR PLOWS.



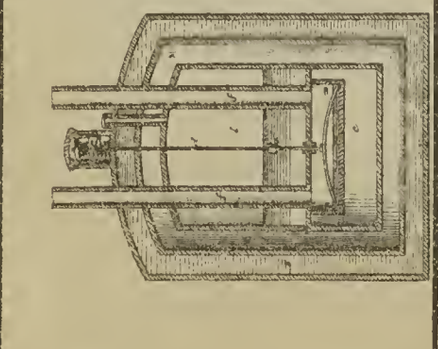
108,003. W. W. BURSON AND J. NELSON. KNITTING MACHINE.



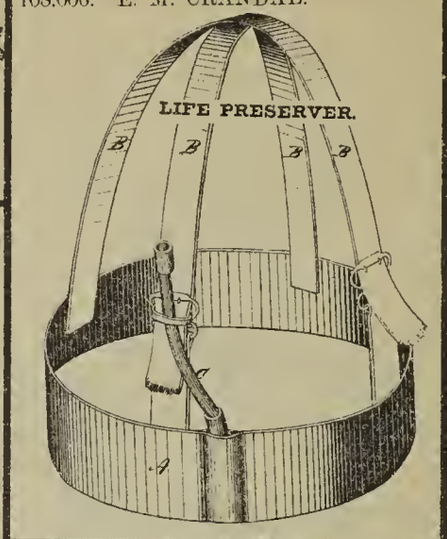
108,004. M. BUTLER. PLOW.



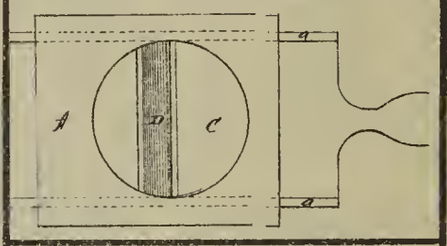
108,005. H. A. CHAPIN. APPARATUS FOR CARBURETING AIR AND GAS.



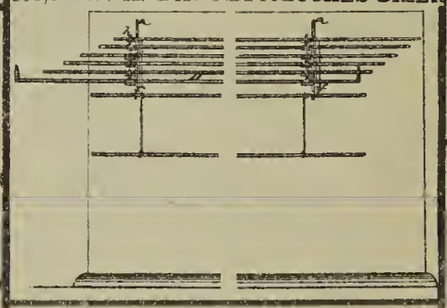
108,006. E. M. CRANDAL. LIFE PRESERVER.



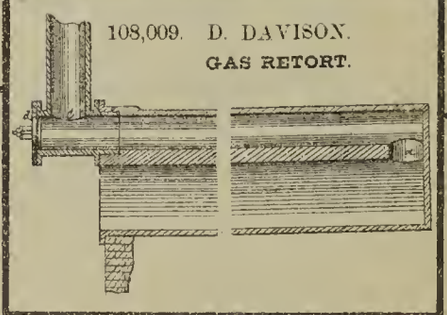
108,007F. CURTIS VEGETABLE CUTTER.



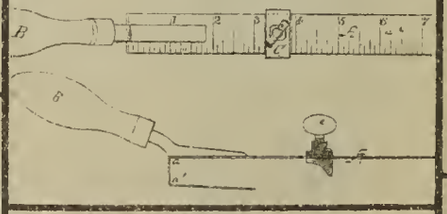
108,008W. A. DAGGETTCLOTHES DRIER



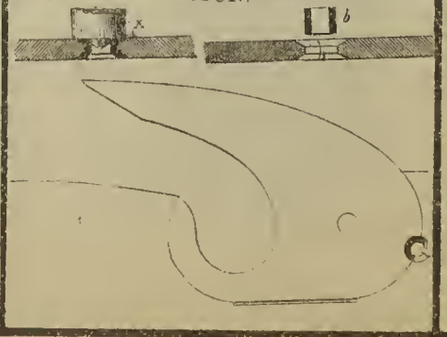
108,009. D. DAVISON. GAS RETORT.



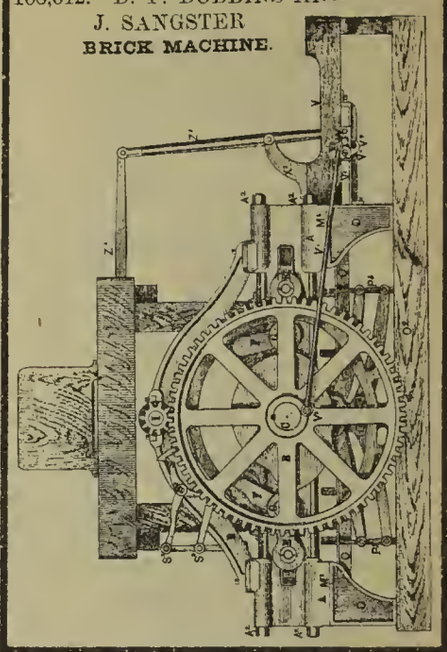
108,010. A. DEYOCLAPBOARD GUAGE



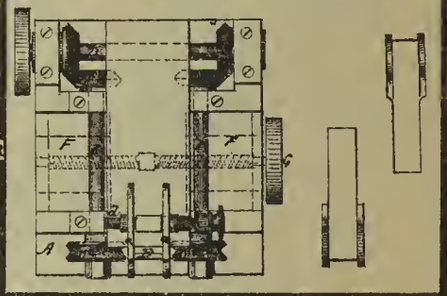
108,011. H. DISSTON. SAW.



108,012. D. P. DOBBINS AND J. SANGSTER BRICK MACHINE.

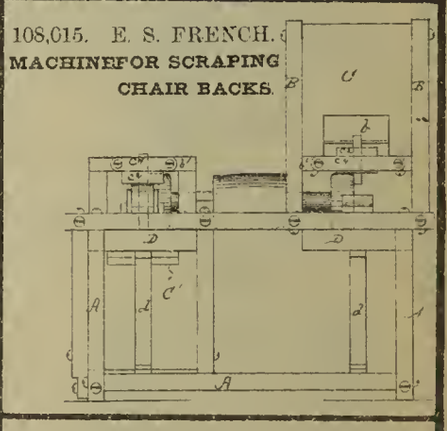


108,013. W. EVANS. MACHINE FOR MILLING CARRIAGE SPRING HEADS.

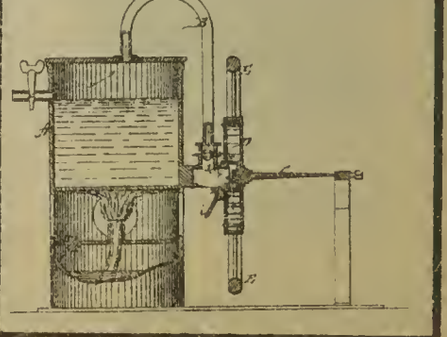


108,014. N. FOUCHE. FLUE.

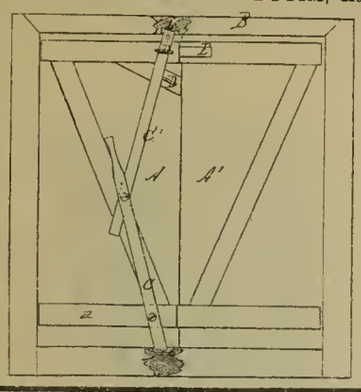
108,015. E. S. FRENCH. MACHINEFOR SCRAPING CHAIR BACKS.



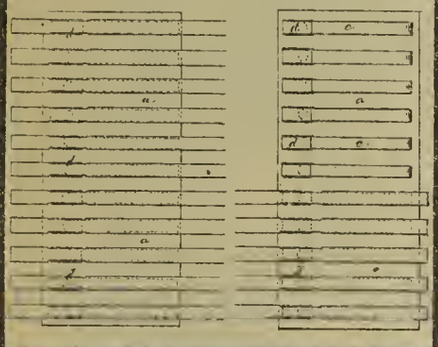
108,016. S. GIBSON. ROTARY ENGINE.



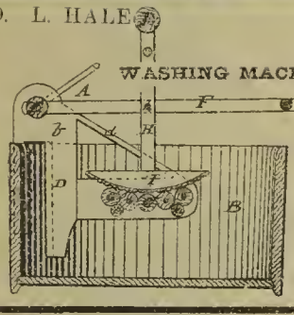
108,017. M. R. GREEN
BOLT FOR BARN DOORS, &c.



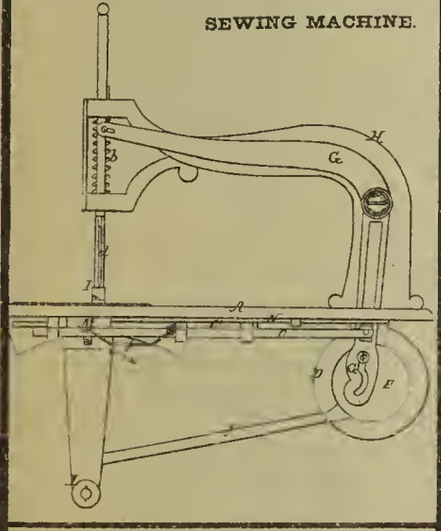
108,018. B. GREGG. BED BOTTOM.



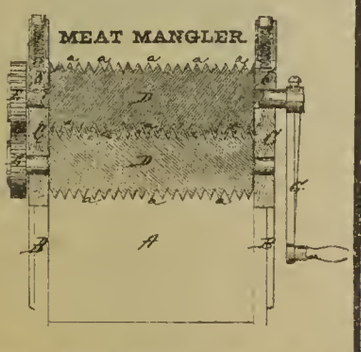
108,019. L. HALE
WASHING MACHINE



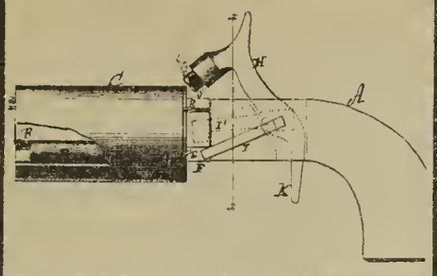
108,020. T. J. HARPER.
SEWING MACHINE.



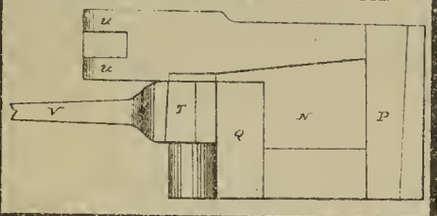
108,021 J. T. HARVEY AND W. DIXON
MEAT MANGLER.



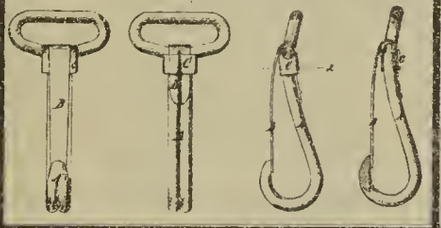
108,022 J. H. HAWES AND O. W BROCK
REVOLVING FIRE CRACKER PISTOL.



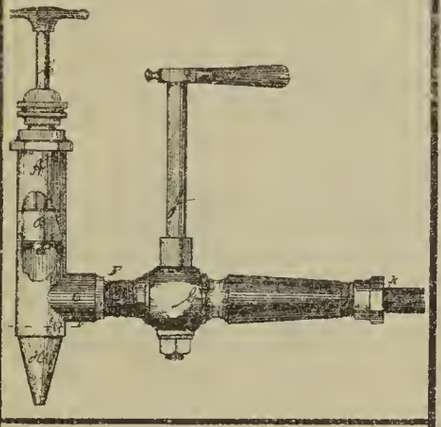
108,023. J. C. HIGGINS.
TRIP HAMMER AND ANVIL STOCK.



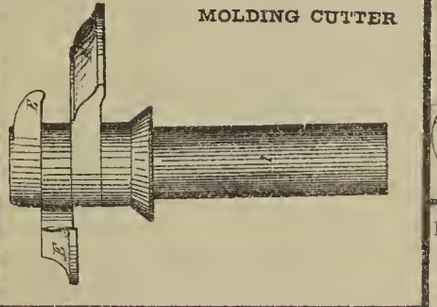
108,024. A. A. HOTCHKISS SNAP HOOK



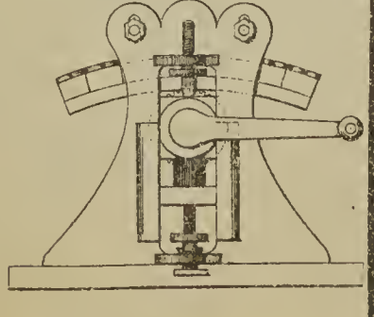
108,025. C. JAKOB. BEER FAUCET.



108,026. N. JENKINS.
MOLDING CUTTER

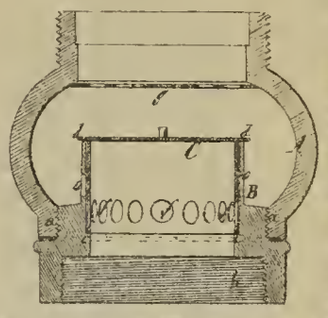


108,027 N. JENKINS
PANELING MACHINE.



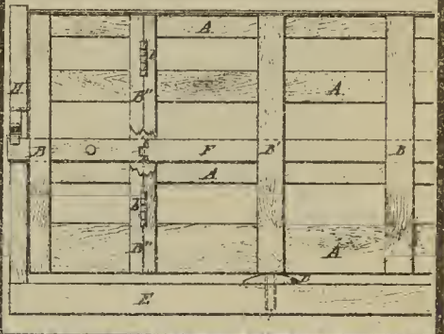
108,028. T. J. JOHNSON TOY TORPEDO

108,029. P. KELLER. GAS REGULATOR.

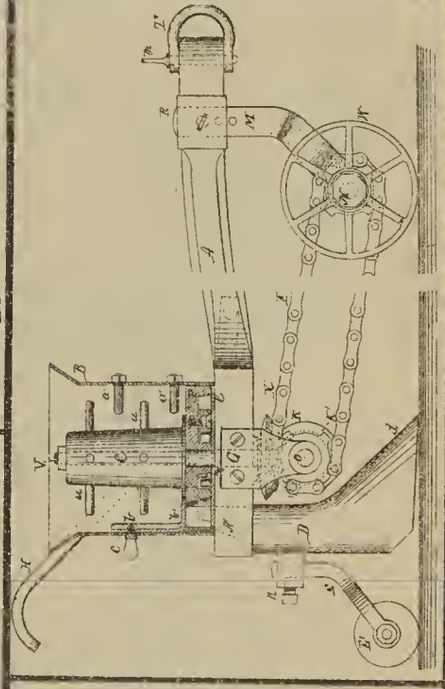


108,030. S. KEPNER COMPOSITION FOR DESTROYING WORMS IN FRUIT TREES.

108,031. S. KEPNER. GATE.

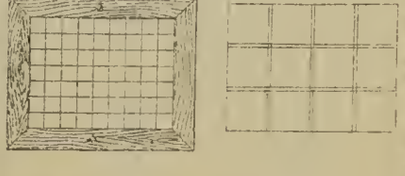


108,032 P. KLING PLOW AND PLANTER.

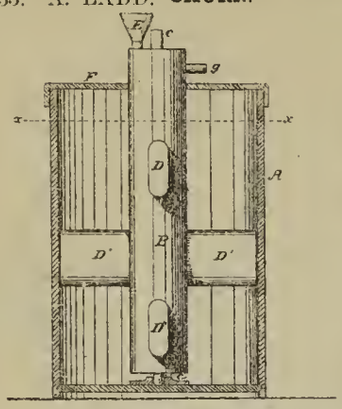


108,033. A. KOMP. SEWING MACHINE.

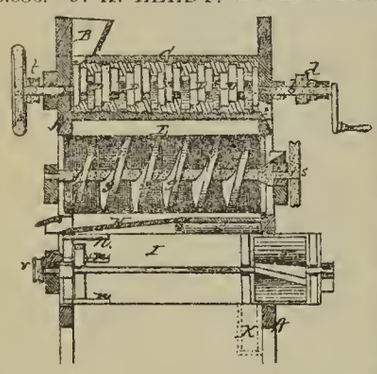
108,034. F. KRAUS.
PUTTING UP MEDICINES.



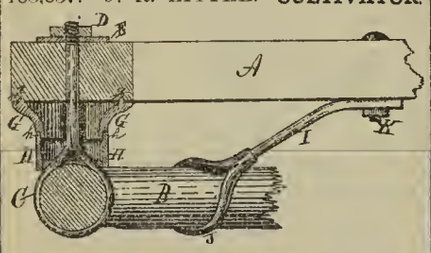
108,035. A. LADD. **CHURN.**



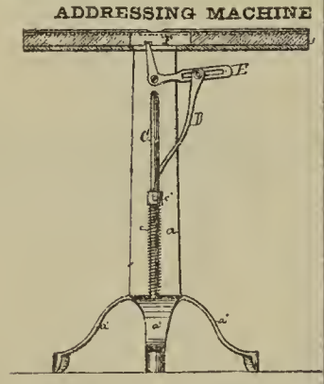
108,036. J. K. LEEDY. **HOMINY MILL.**



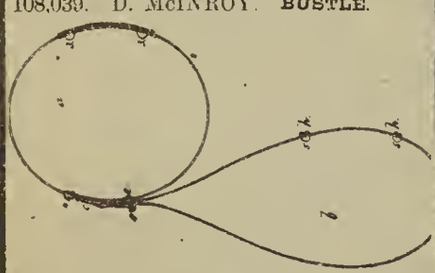
108,037. J. R. LITTLE. **CULTIVATOR.**



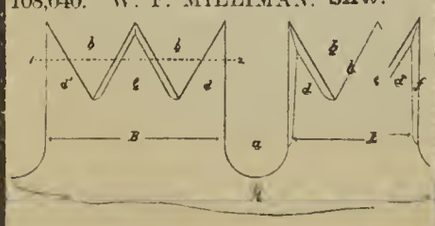
108,038. J. McFATRICK **ADDRESSING MACHINE**



108,039. D. McINROY. **BUSTLE.**

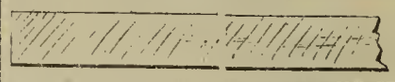


108,040. W. F. MILLIMAN. **SAW.**

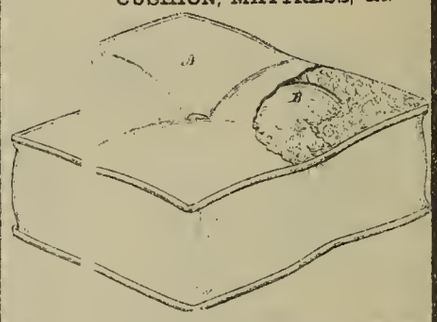


108,041. A. G. MORVAN **ELECTRO PHOTO DAMASKENING AND ENAMELING.**

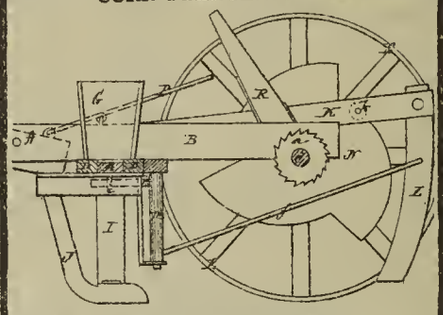
108,042. J. MYERS, Jr. **METAL PLATE OF IRON AND STEEL.**



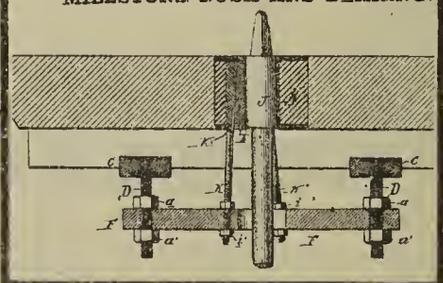
108,043. T. H. O'BRIEN. **CUSHION, MATTRESS, &c.**



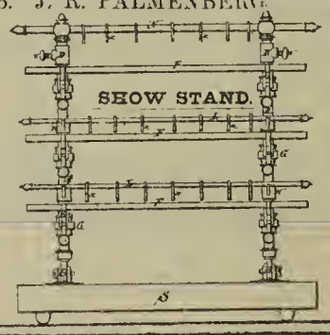
108,044. F. OGDEN **CORN PLANTER AND MARKER**



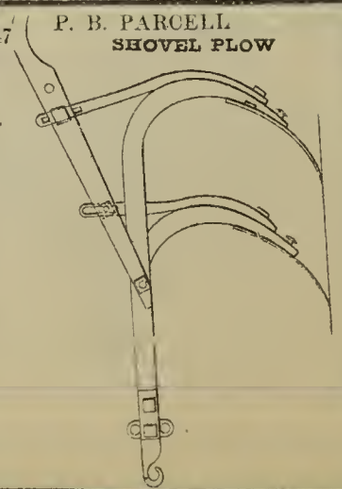
108,045. A. ORTLIP. **MILLSTONE BUSH AND BEARING.**



108,046. J. R. PALMENBERG. **SHOW STAND.**

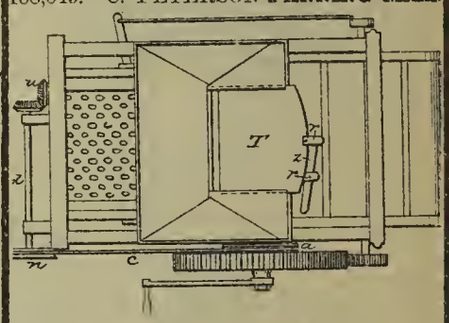


108,047. P. B. PARCELL **SHOVEL PLOW**

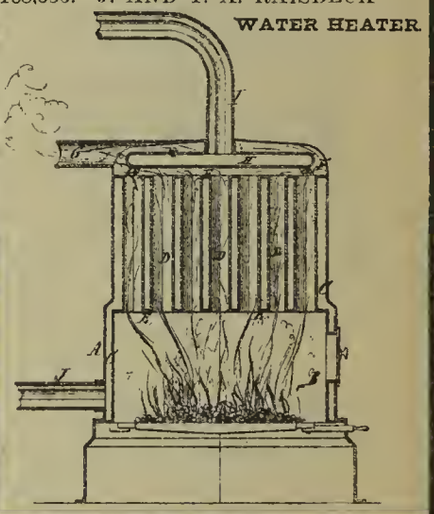


108,048. O. P. PENCE. **FRUIT DRIER.**

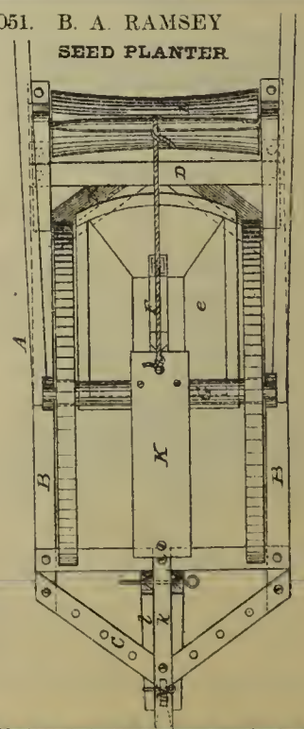
108,049. C. PETERSON **FANNING MILL.**



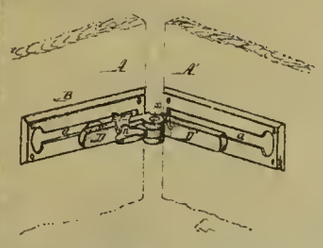
108,050. J. AND T. A. RAISBECK **WATER HEATER.**



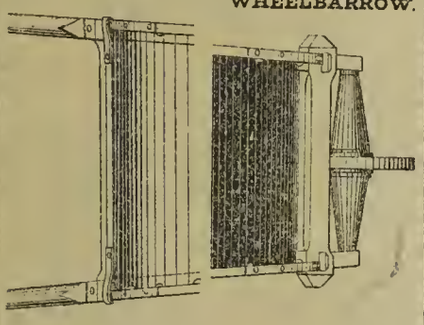
108,051. B. A. RAMSEY **SEED PLANTER.**



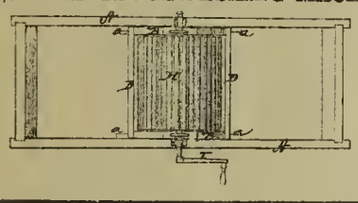
108,052A. RANKIN SHUTTER FASTENER



108,053. R. M. REYNOLDS. WHEELBARROW.

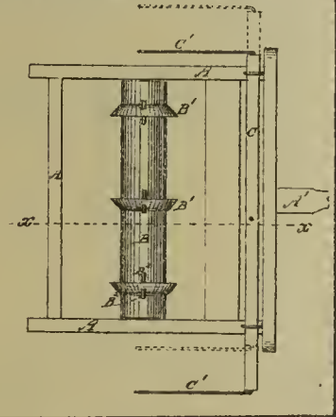


108,054. A. RIGGS WASHING MACHINE

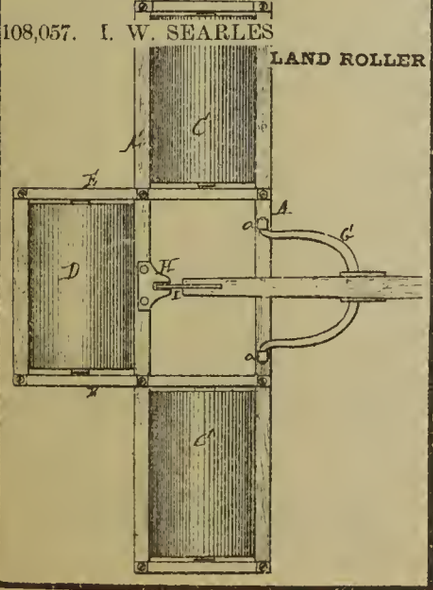


108,055. J. RILEY. COMPOSITION FOR COVERING STEAM BOILERS AND FOR OTHER PURPOSES

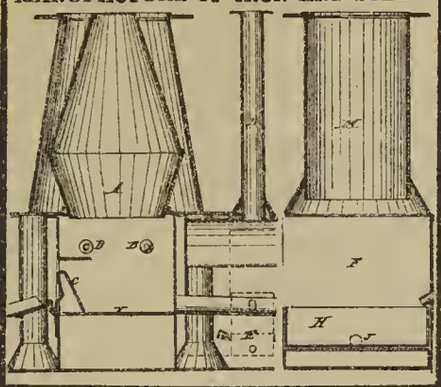
108,056. M. M. ROBBINS. FIELD ROLLER AND FURROWING MACHINE



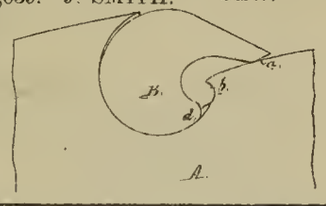
108,057. I. W. SEARLES LAND ROLLER



108,058. L. SIBERT. MANUFACTURE OF IRON AND STEEL

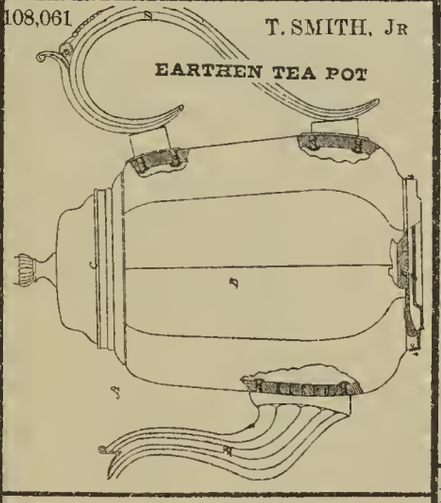


108,059. J. SMITH. SAW.

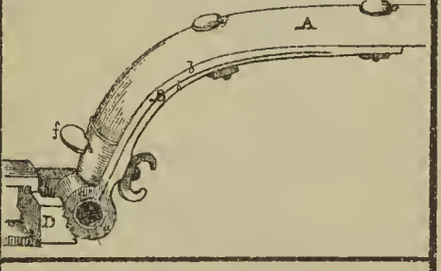


108,060. J. E. AND C. L. SMITH TANNING VAT

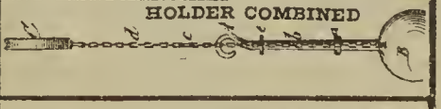
108,061 T. SMITH, JR EARTHEN TEA POT



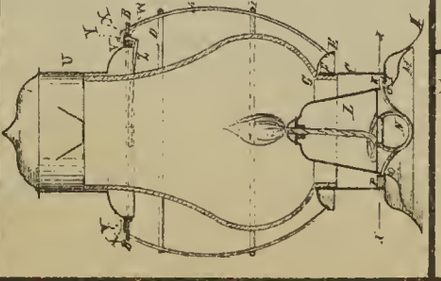
108,062. J. STEELE. SHAFT COUPLING FOR VEHICLES.



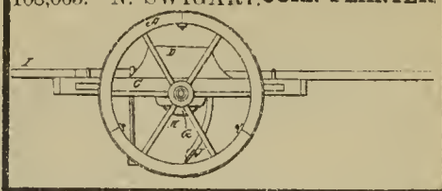
108,063. G. D. STEVENS BUTTON HOOK AND HANDKERCHIEF HOLDER COMBINED



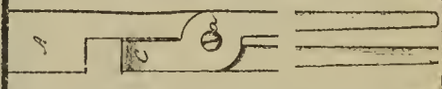
108,064. P. SWEENEY. LANTERN.



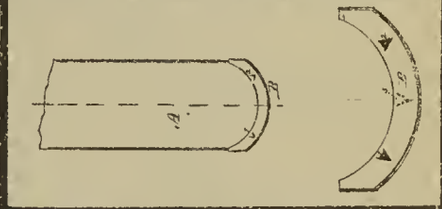
108,065. N. SWIGART. CORN PLANTER



108,066. W. TERRELL TONGS FOR FORGING THE ARMS OF FIFTHWHEELS

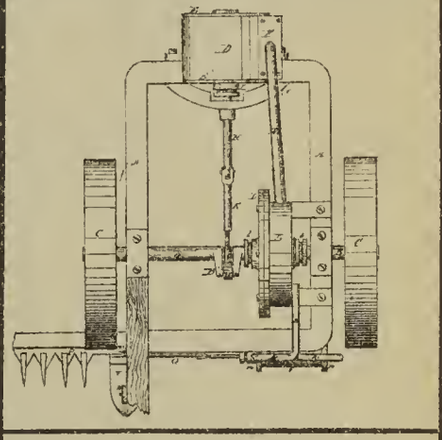


108,067. J. TWAMLEY METALLIC BINDING FOR TEXTILE FABRICS

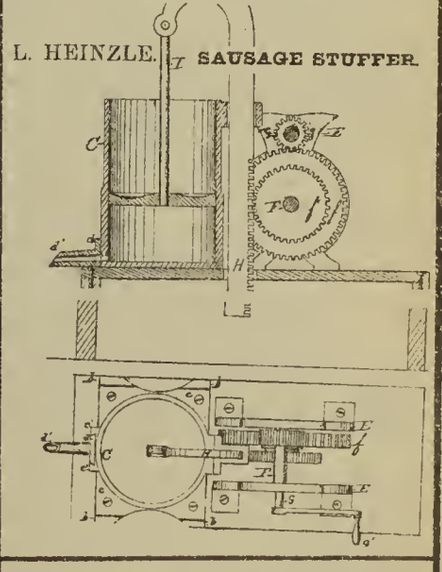


108,068 W. UTLEY TILE FOR ROOFING, &c

108,069. A. H. WAGNER HARVESTER.



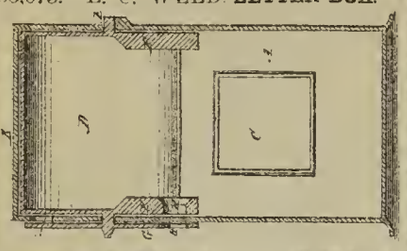
108,070. H. WHALER, H. METZ, AND L. HEINZLE. SAUSAGE STUFFER.



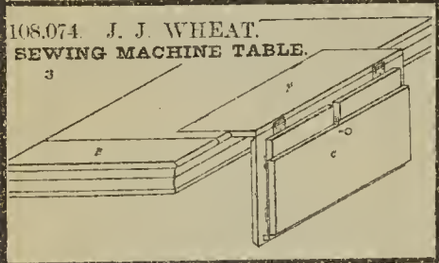
108,071. J. F. WALSH CAP FOR HORSE COLLARS.

108,072. A. WARTH.
RENDERING LEATHER IMPERVIOUS TO HYDROCARBON LIQUIDS.

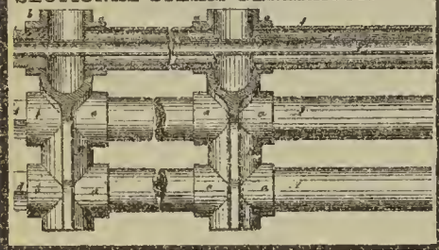
108,073. E. C. WELD. LETTER BOX.



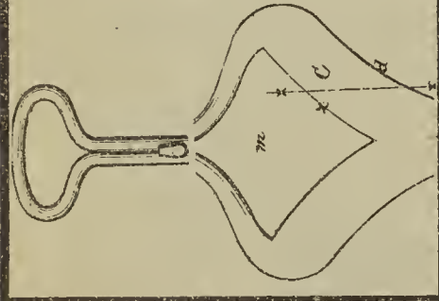
108,074. J. J. WHEAT.
SEWING MACHINE TABLE.



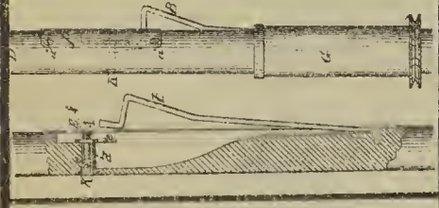
108,075. H. WHITTINGHAM
SECTIONAL STEAM GENERATOR.



108,076. D. H. WILE. HAY KNIFE.



108,077. R. C. WILLIAMS. UMBRELLA



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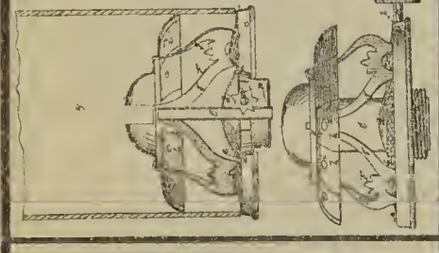
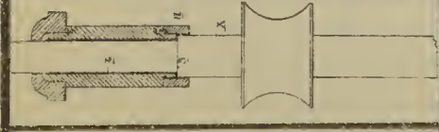
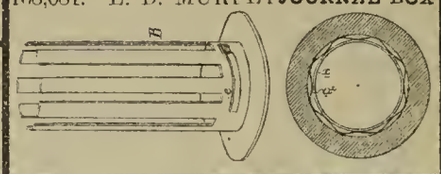


108,079. E. D. MURFEY. JOURNAL BOX

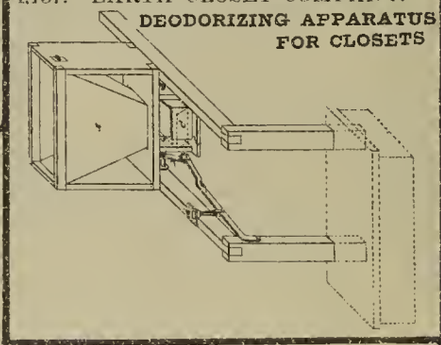


108,080. E. D. MURFEY
JOURNAL BEARING

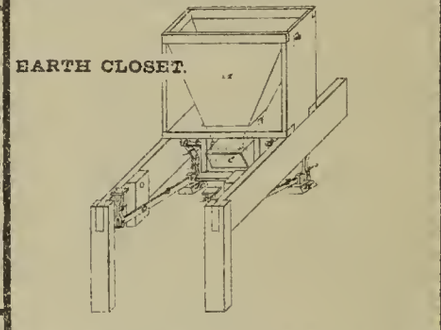
108,081. E. D. MURFEY. JOURNAL BOX



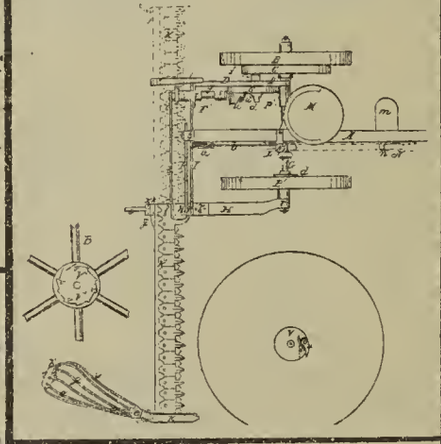
4,137. EARTH CLOSET COMPANY.
DEODORIZING APPARATUS FOR CLOSETS



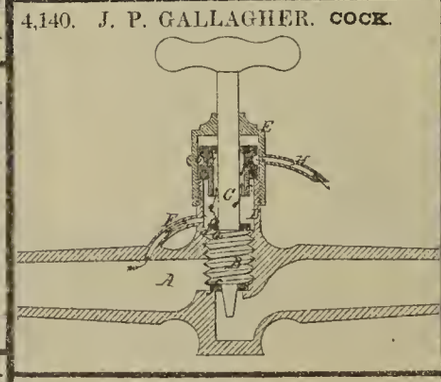
4,138. EARTH CLOSET COMPANY.
EARTH CLOSET.



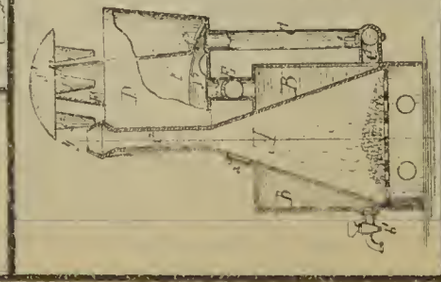
4,139. R. DUTTON. HARVESTER.



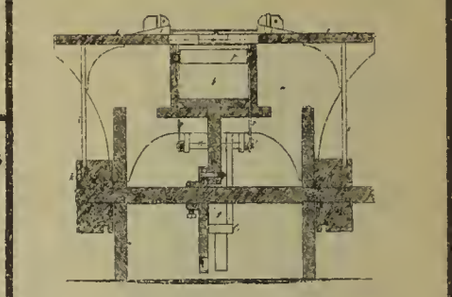
4,140. J. P. GALLAGHER. COCK.



4,141. J. T. GROSE
WASHING APPARATUS.

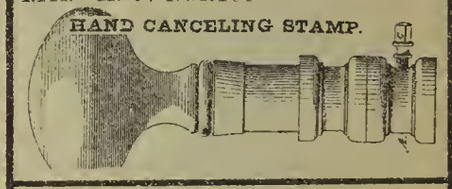


4,142. W. L. WILLIAMS AND T. J. O'CONNOR.
MACHINE FOR BUNDLING WOOD

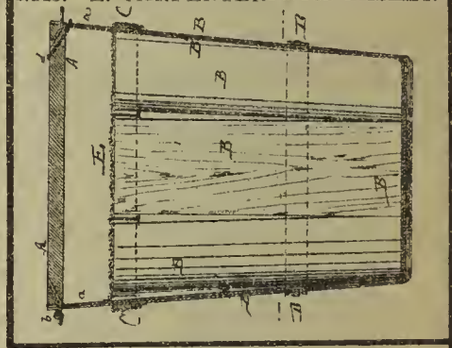


4,143. M. P. NORTON
POST OFFICE POST MARKING AND CANCELING HAND STAMP

4,144. M. P. NORTON
HAND CANCELING STAMP.

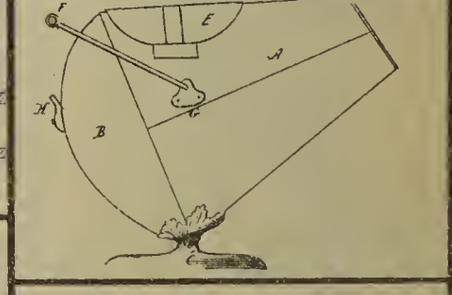


4,145. L. CARPENTER. FRUIT BASKET.

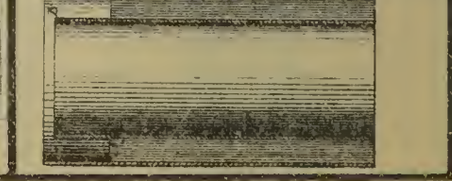


4,146. G. L. GERARD.
TABLE LEAF SUPPORTER.

4,147. E. A. JEFFERY. COAL HOD.



4,148. E. L. PERRY AND C. MANHEIM. MANUFACTURE OF RUBBER OR GUTTA PERCHA HOSE



ILLUSTRATIONS OF PATENTS

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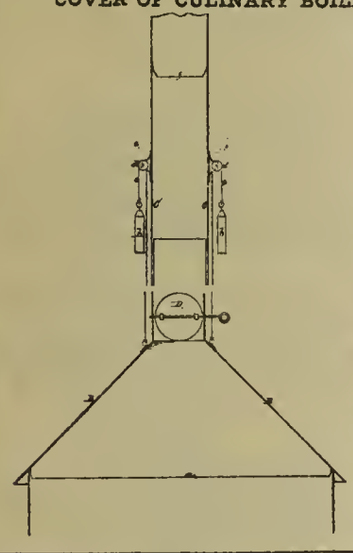
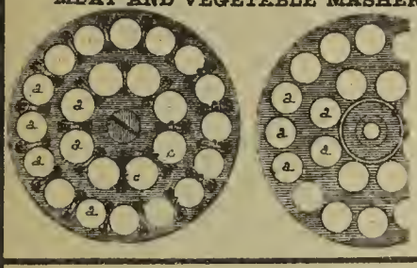
OCTOBER 11, 1870.

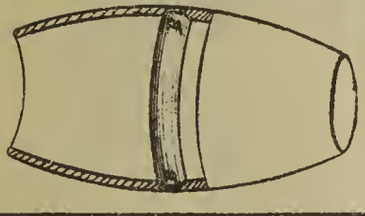
108,082. P. J. AND J. ABBOTT. COVER OF CULINARY BOILER.



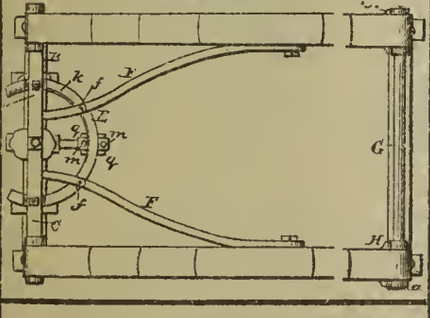
108,083. G. A. ANDERSON AND C. J. BAKER. MEAT AND VEGETABLE MASHER.



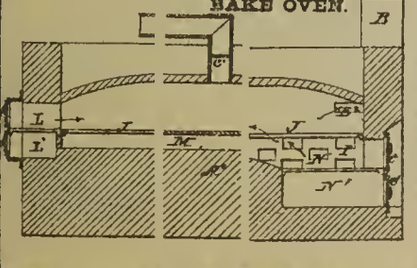
108,084. J. E. ATWOOD. CRUCIBLE FOR MELTING IRON AND STEEL.



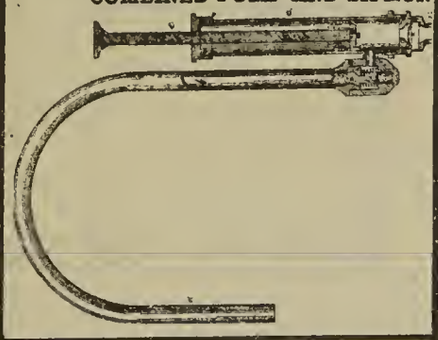
108,085. J. B. AUGUR. GEARING FOR WAGONS.



108,086. A. A. AND J. A. AULL BAKE OVEN.



108,087. J. D. AVERELL, G. A. HIGGINS AND T. GORDON COMBINED PUMP AND SIPHON

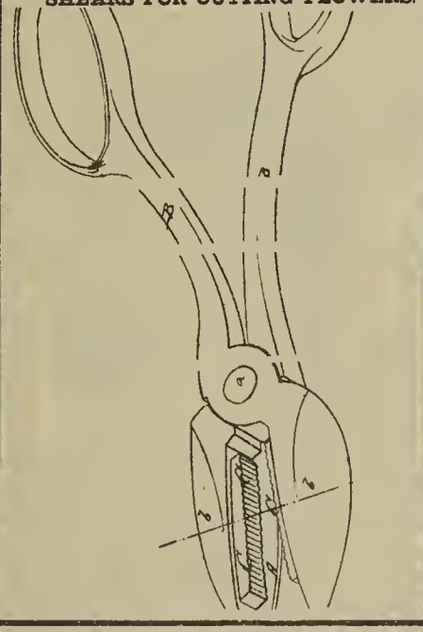


108,088. H. M. BAKER. PROCESS FOR THE MANUFACTURE OF CARBONATE OF SODA, HYDROCHLORIC ACID, &c.

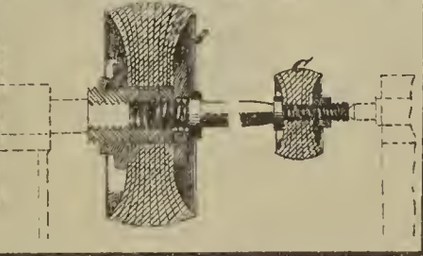
108,089. H. M. BAKER MANUFACTURE OF ALUMINATE OF SODA

108,090. H. M. BAKER. MANUFACTURE OF NITRIC ACID.

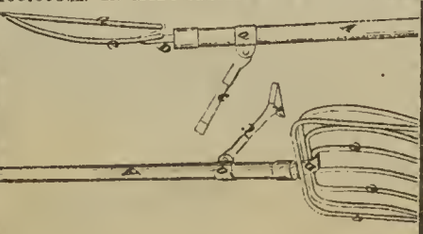
108,091. J. W. BARBOUR. SHEARS FOR CUTTING FLOWERS.



108,092. H. BARRETT. BUFFING APPARATUS FOR FINISHING SPOONS.



108,093. A. L. BAUSMAN POTATO DIGGER



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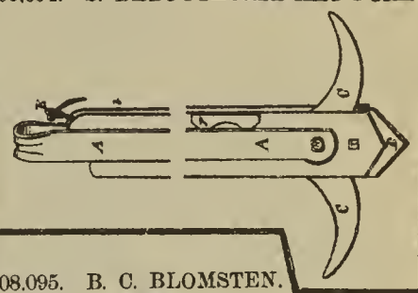
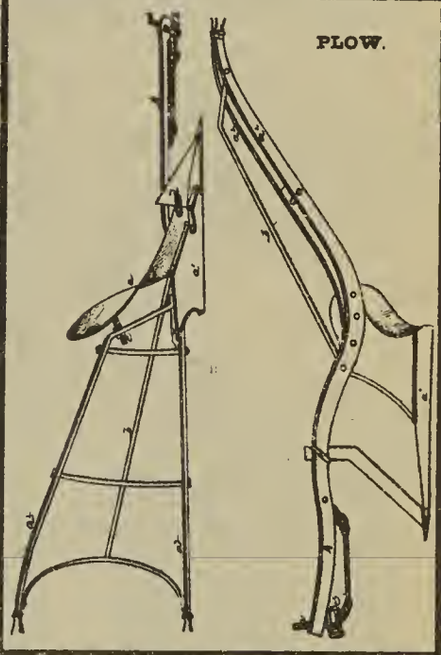
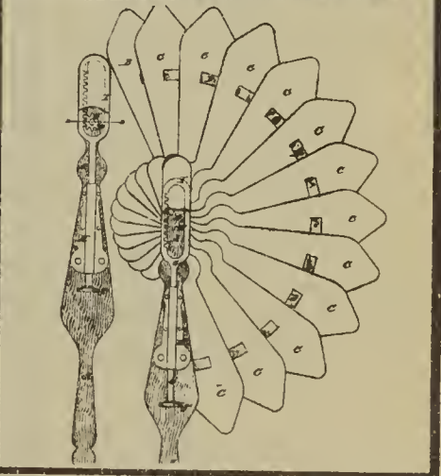


108,095. B. C. BLOMSTEN. PLOW.

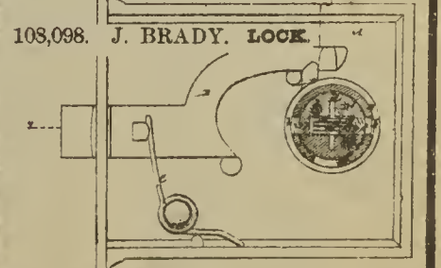


108,096. G. BORDES DEVICE FOR OPENING AND CLOSING PANS.

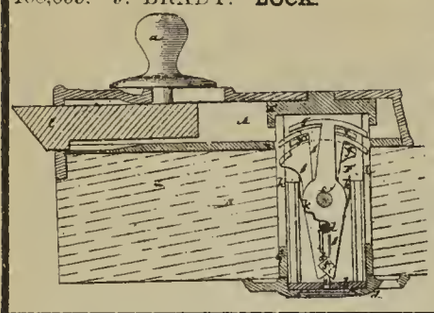


108,097. C. D. BOSS AND C. D. BOSS, Jr. MANUFACTURE OF BISCUITS

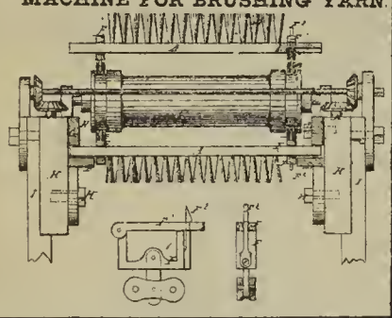
108,098. J. BRADY. LOCK.



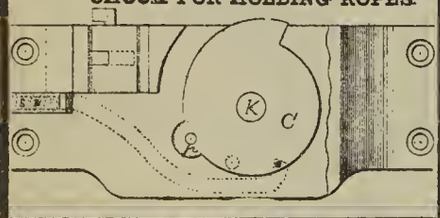
108,099. J. BRADY. **LOCK.**



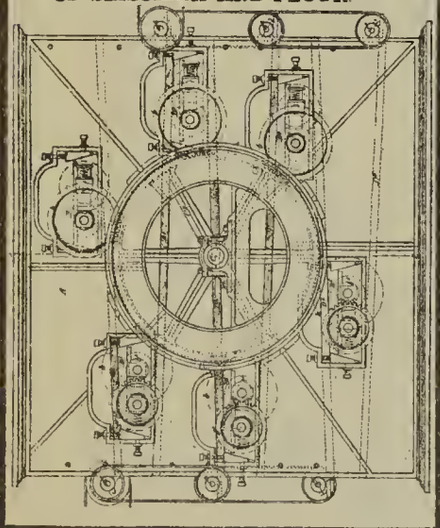
108,100. J. BRADY. **MACHINE FOR BRUSHING YARN.**



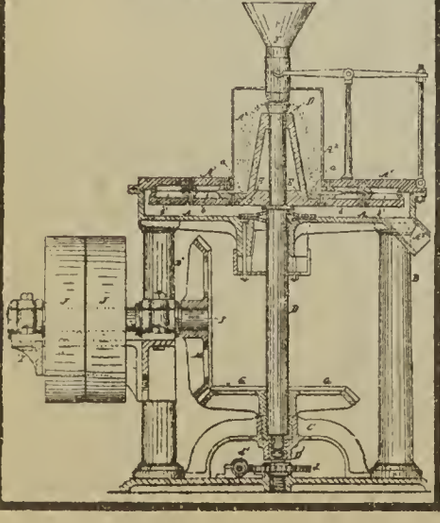
108,101. D. D. BROWN. **CHOCK FOR HOLDING ROPES.**



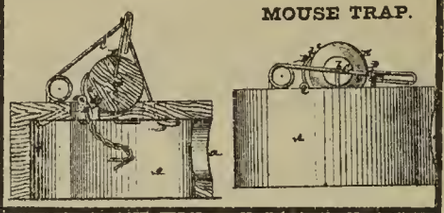
108,102. G. A. BUCHHOLZ **MANUFACTURE OF SEMOLINA AND FLOUR.**



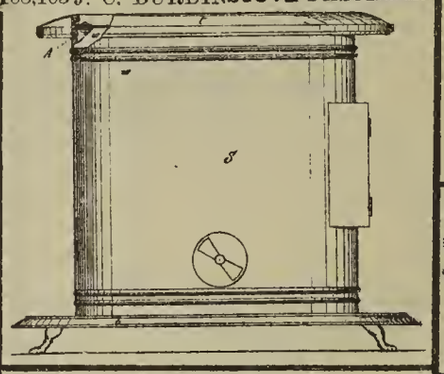
108,103. G. A. BUCHHOLZ. **MANUFACTURE OF SEMOLINA AND FLOUR.**



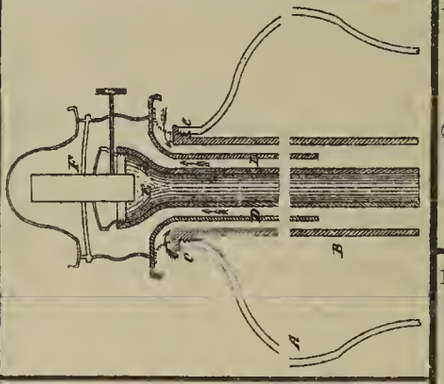
108,104. E. AND A. BUCKMAN **MOUSE TRAP.**



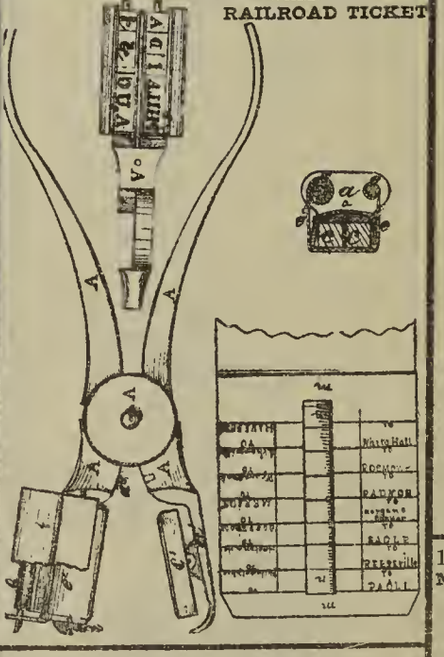
108,105 J. C. BURDIN **STOVE FASTENER.**



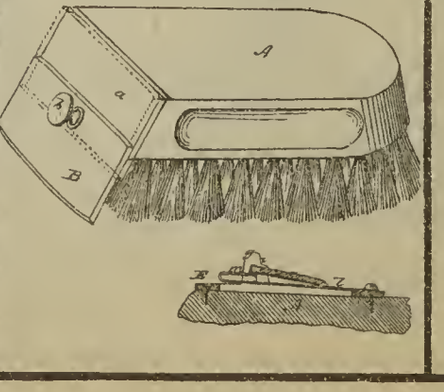
108,106. O. M. CHAMBERLAIN. **LAMP.**



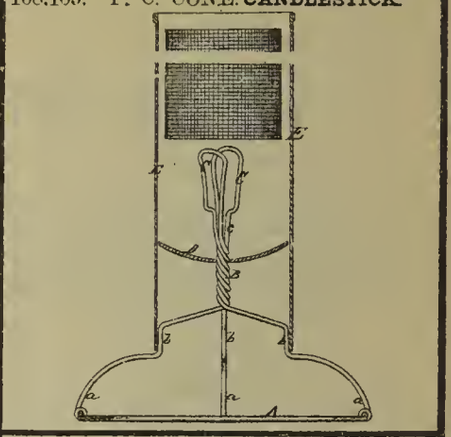
108,107. C. A. CHAMBERLIN **RAILROAD TICKET.**



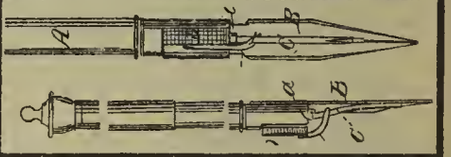
108,108. R. J. COMBS. **BRUSH.**



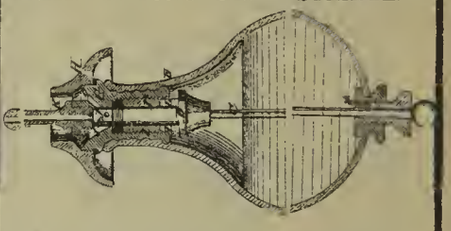
108,109. F. C. CONE. **CANDLESTICK.**



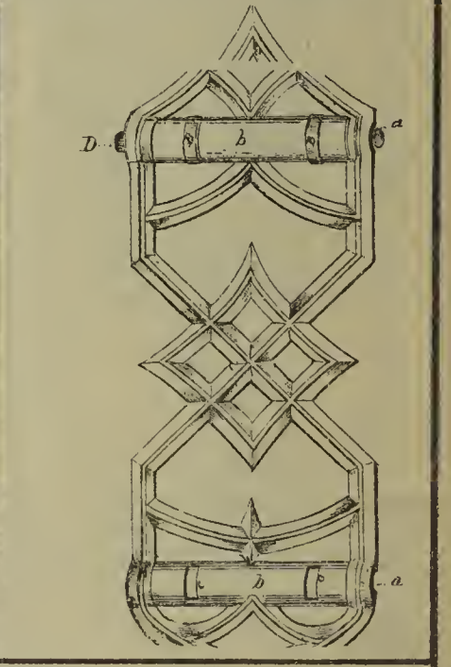
108,110. F. C. CONE. **FOUNTAIN PEN.**



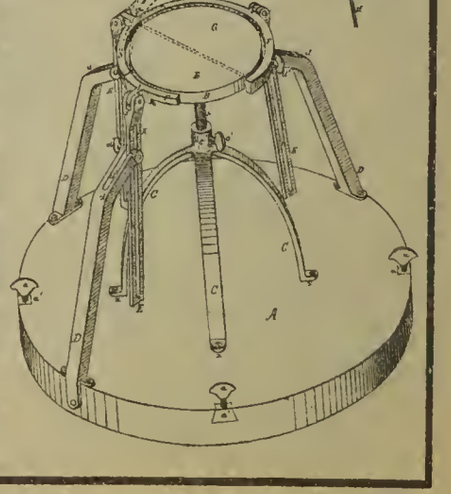
108,111. G. CONOVER. **SYRINGE.**



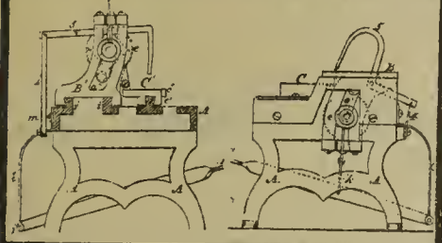
108,112. S. CROWELL **IRON FENCE.**



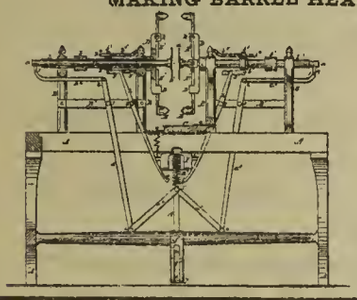
108,113. A. CUTTER. **MACHINE FOR SETTING UP BARRELS.**



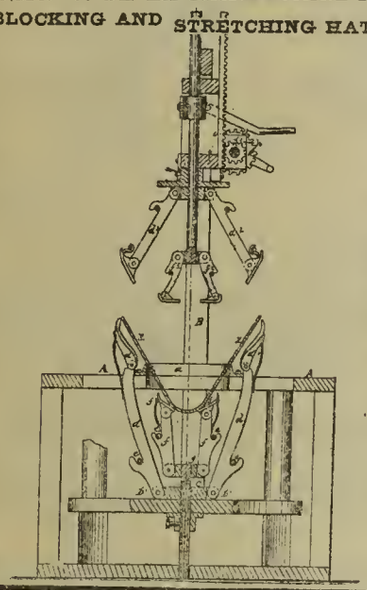
108,114. A. CUTTER MACHINE FOR CUTTING LOCKS IN HOOPS



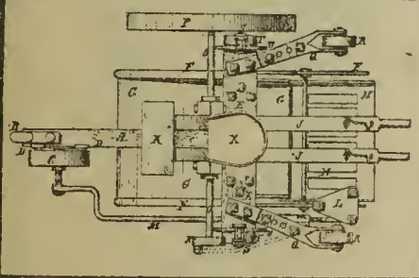
108,115. A. CUTTER MACHINE FOR MAKING BARREL HEADS



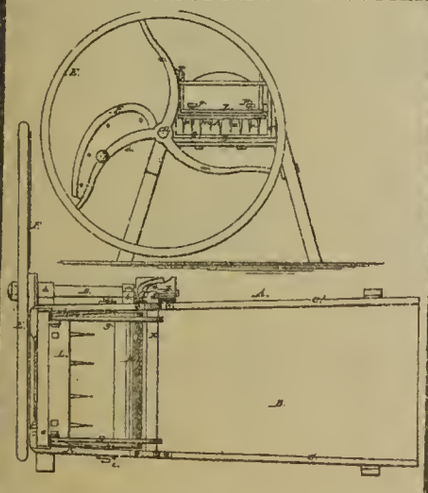
108,116. J. DE LA MAR MACHINE FOR BLOCKING AND STRETCHING HATS.



108,117. W. DILLON POTATO DIGGER

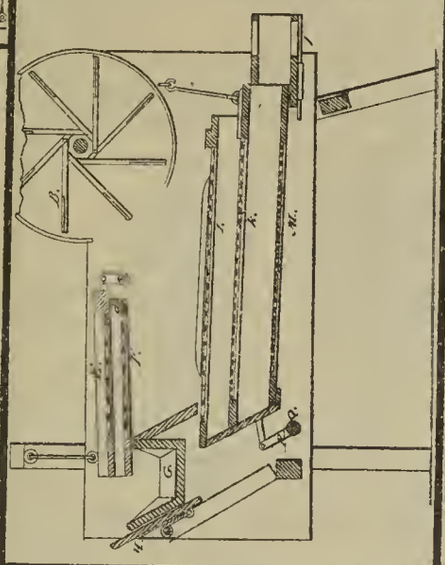


108,118. C. R. DONNER FEED CUTTER.

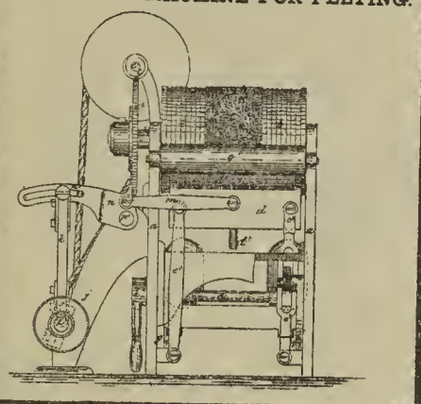


108,119. J. G. DREHER. TOBACCO CUTTER.

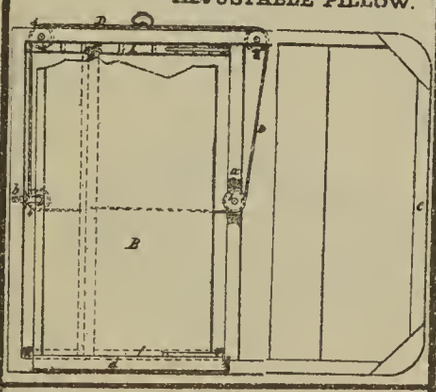
108,120. A. DUUS. GRAIN SEPARATOR



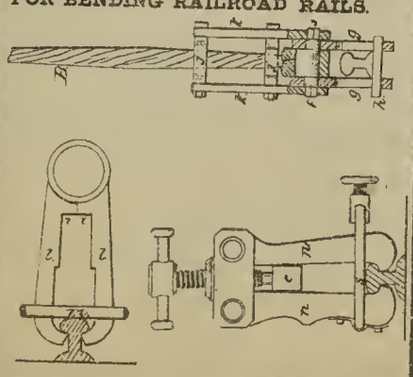
108,121. R. EICKEMEYER MACHINE FOR FELTING.



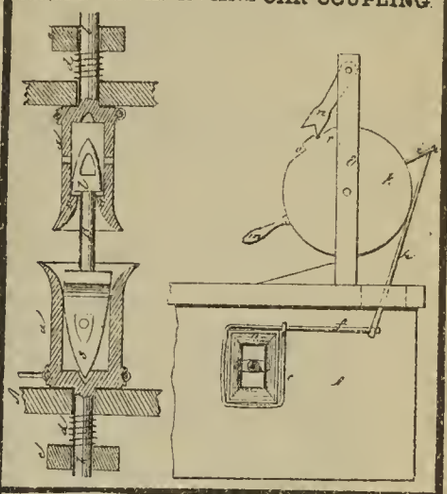
108,122. H. EILERS. ADJUSTABLE PILLOW.



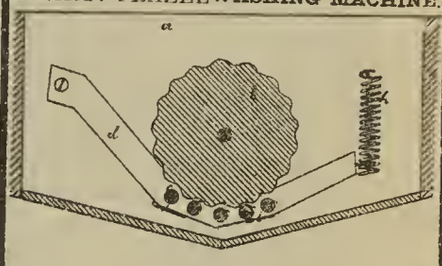
108,123. G. D. EMERSON APPARATUS FOR BENDING RAILROAD RAILS.



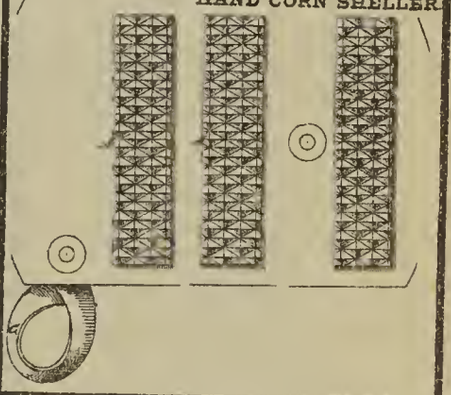
108,124. L. A. EVANS CAR COUPLING.



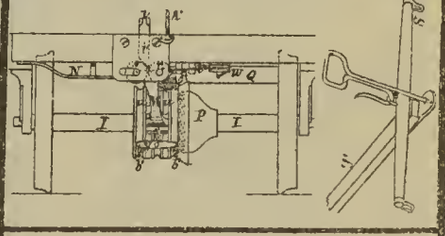
108,125F. FEAZEL WASHING MACHINE.



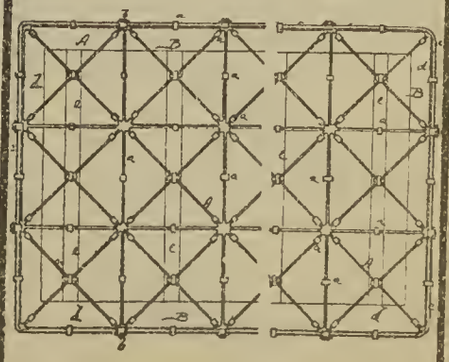
108,126. J. E. FINLEY HAND CORN SHELLER.



108,127. G. P. FRICK. DEVICE FOR STARTING STREET CARS.

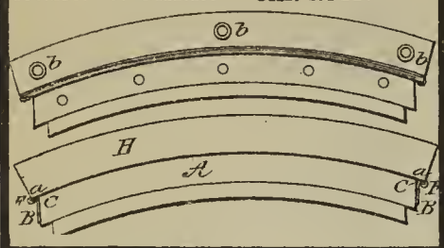


108,128. C. FULTON SPRING MATTRESS



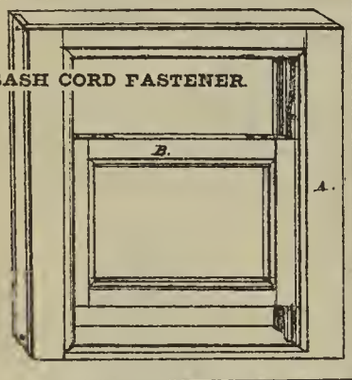
108,129. T. FYANS. COMPOSITION FOR WELDING AND RESTORING STEEL.

108,130. J. GARRY CAR ROOF.



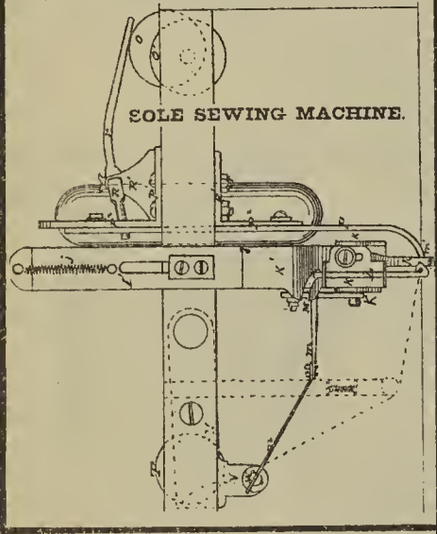
108,131. C. GIES.

SASH CORD FASTENER.



108,132. J. P. GREELY.

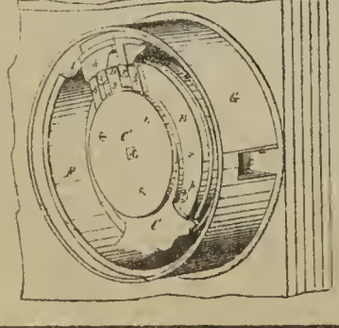
SOLE SEWING MACHINE.



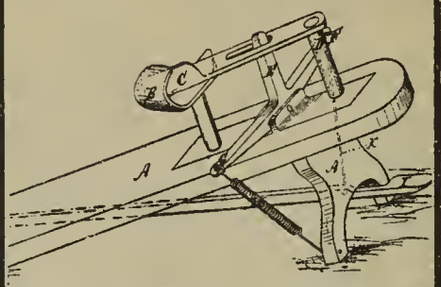
108,133. L. A. GRILL

NECKTIE.

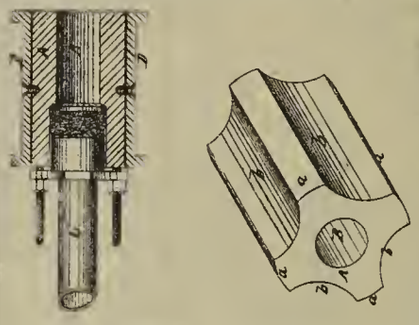
108,134. H. GROSS PERMUTATION LOCK



108,135. C. A. HEGE. CANE STRIPPER.

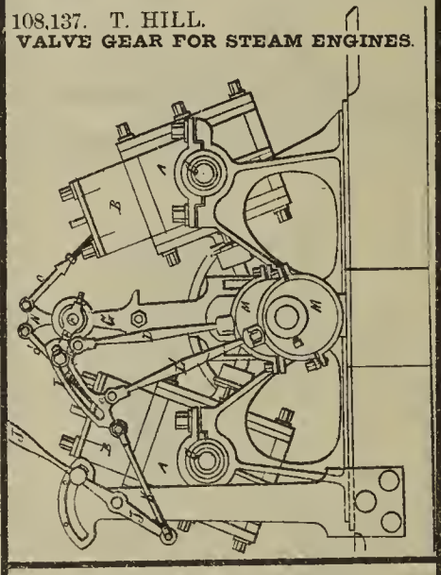


108,136. T. HILL. TRUNNION FOR STEAM ENGINES AND CALENDERS.



108,137. T. HILL.

VALVE GEAR FOR STEAM ENGINES.

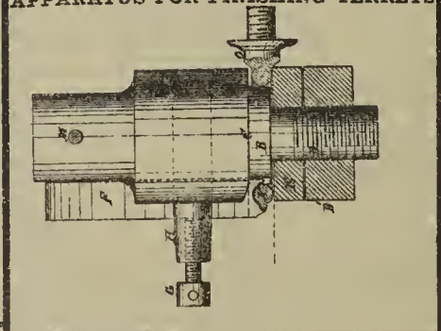


108,138. A. J. HINDEMEYER

COMPOSITION FOR WELDING. PUDDLING AND BRAZING METALS.

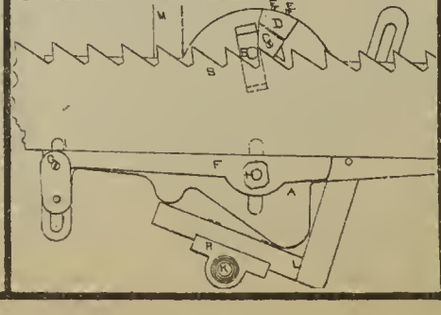
108,139. C. HINGHER.

APPARATUS FOR FINISHING TERRETS.

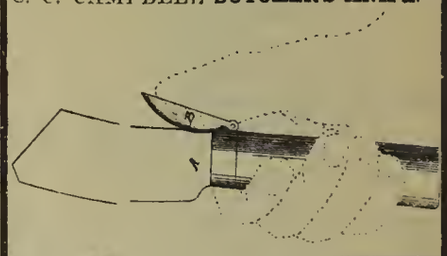


108,140. G. M. HINKLEY

SWAGING MACHINE.

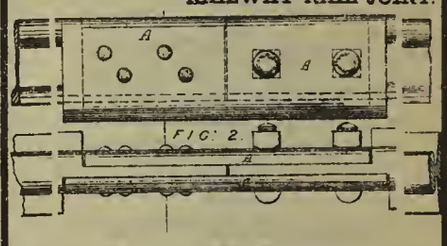


108,141. P. HOUSEMAN AND C. C. CAMPBELL. BUTCHER'S KNIFE.

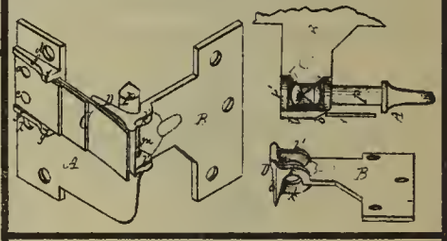


108,142. G. A. HUDDART.

RAILWAY RAIL JOINT.



108,143. A. HUFFER. HINGE.



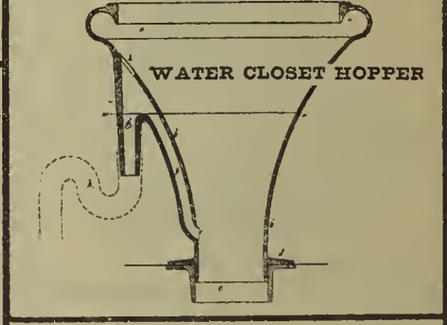
108,144. J. C. HULL. WINDOW WASHER AND SCRUBBING PAD.

108,145. I. G. HUSTED.

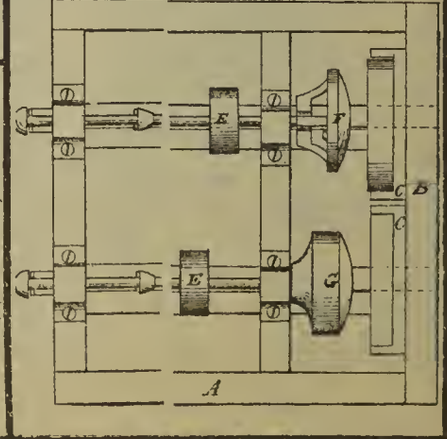
COMPOSITION FOR PRINTING ROLLERS

108,146 A. IVERS

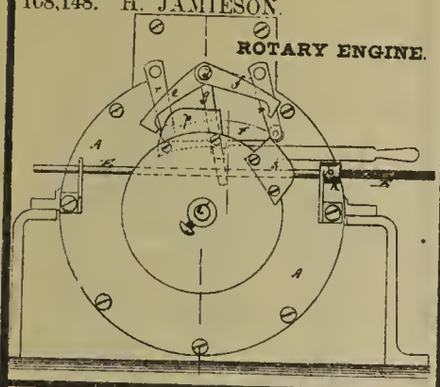
WATER CLOSET HOPPER



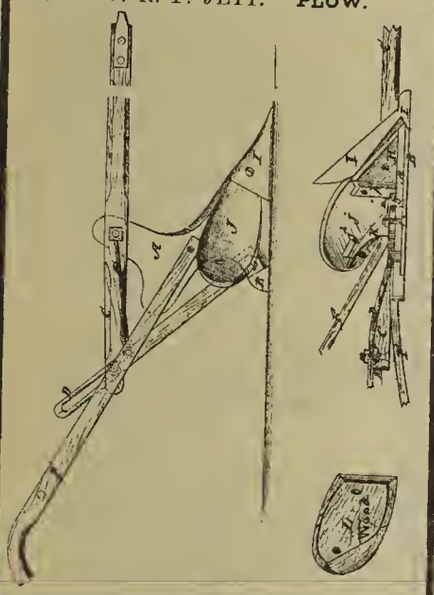
108,147. E. S. JACKSON MACHINE FOR MANUFACTURING CHAIR SEATS.



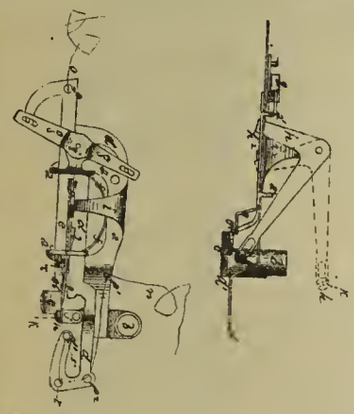
108,148. H. JAMIESON. ROTARY ENGINE.



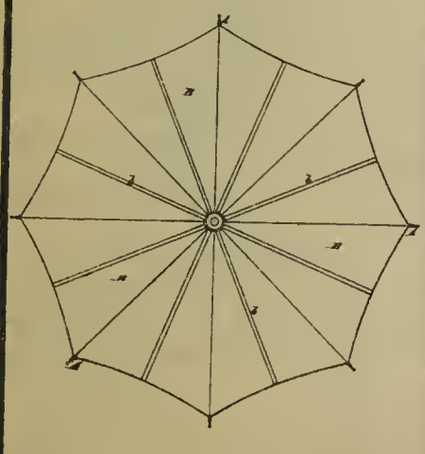
108,149. J. R. P. JETT. PLOW.



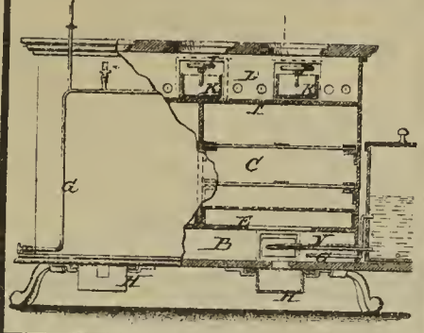
108,150. A. W. JOHNSON. EMBROIDERING ATTACHMENT FOR SEWING MACHINES.



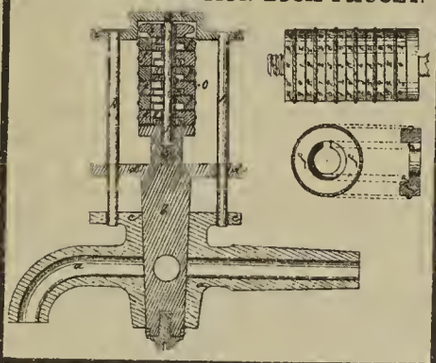
108,151. F. JOHNSON AND W. HATCHMAN. UMBRELLA.



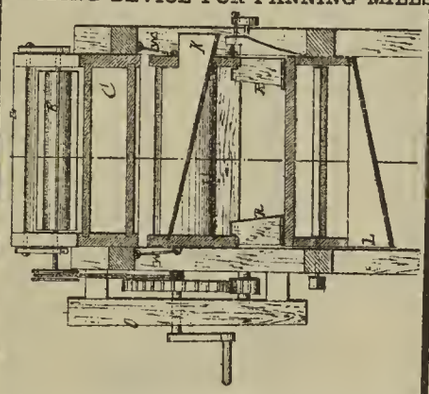
108,152. J. H. JONES. COOKING STOVE.



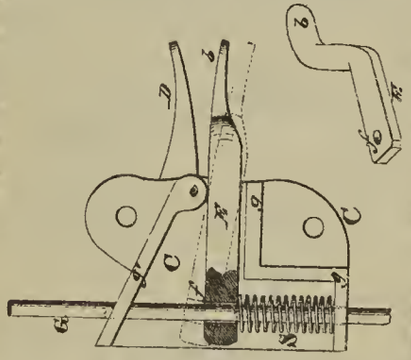
108,153. W. F. JONES. PERMUTATION LOCK FAUCET.



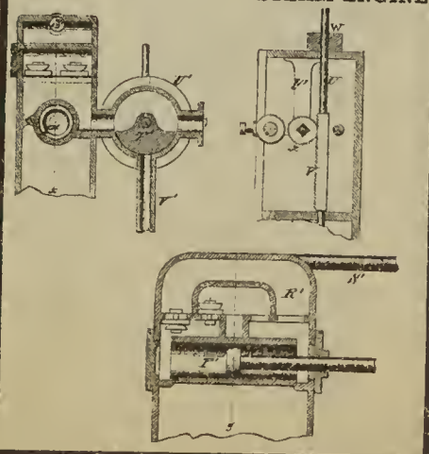
108,154. N. KIBLER. FEEDING DEVICE FOR FANNING MILLS.



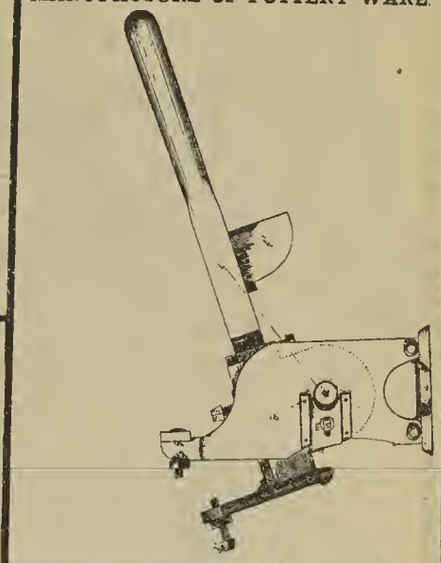
108,155. G. KING. SASH HOLDER.



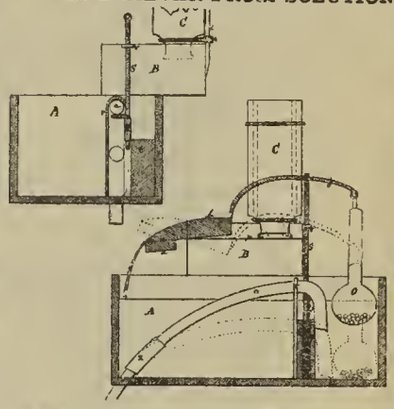
108,156. F. E. KIRBY. STEAM ENGINE.



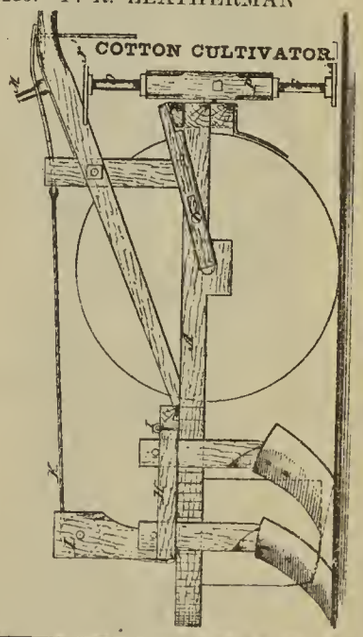
108,157. I. W. KNOWLES. MANUFACTURE OF POTTERY WARE.



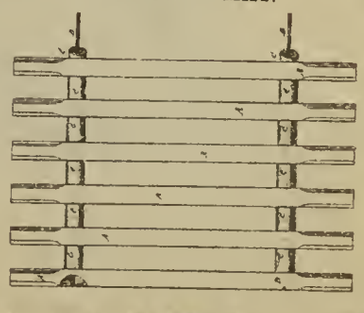
108,158. W. S. LAIGHTON. APPARATUS FOR PRECIPITATING GOLD AND SILVER FROM SOLUTIONS.



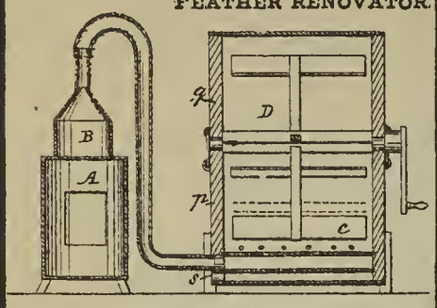
108,159. P. R. LEATHERMAN. COTTON CULTIVATOR.



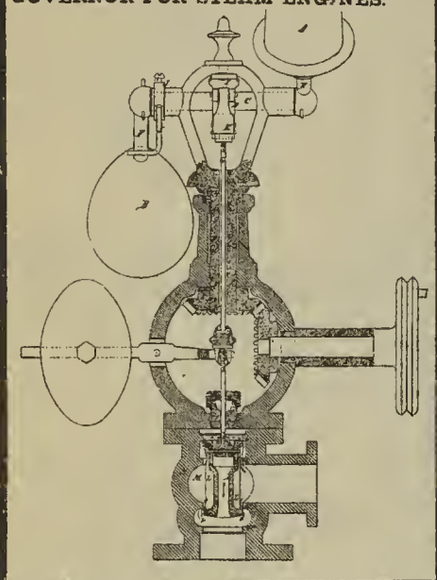
108,160. S. LEWIS. MAT.



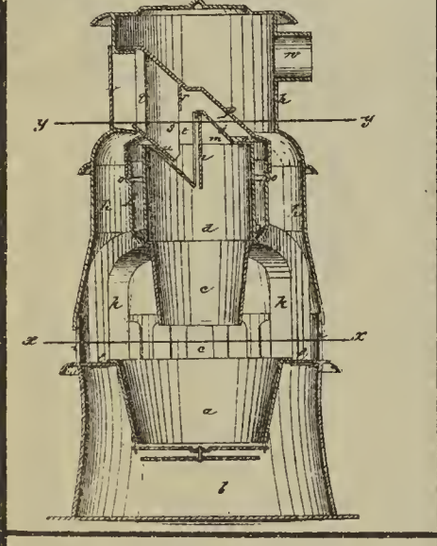
108,161. W. G. LUMBARD.
FEATHER RENOVATOR.



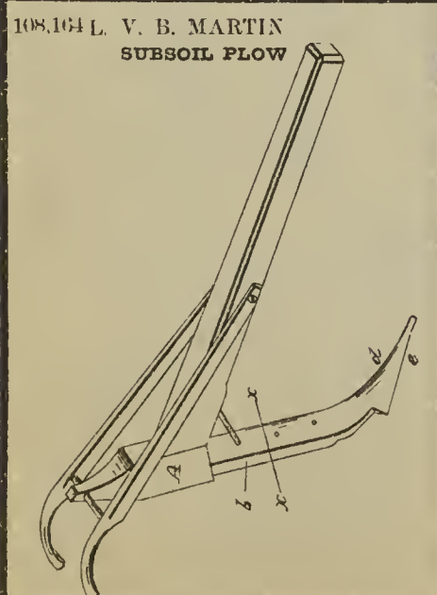
108,162. J. D. LYNDE.
GOVERNOR FOR STEAM ENGINES.



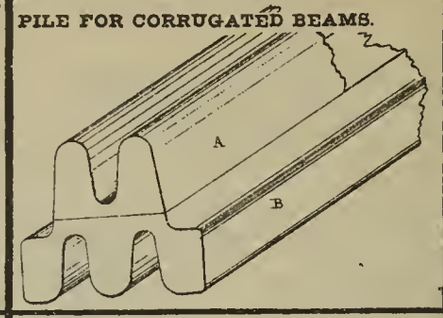
108,163. W. MAGILL HEATING STOVE



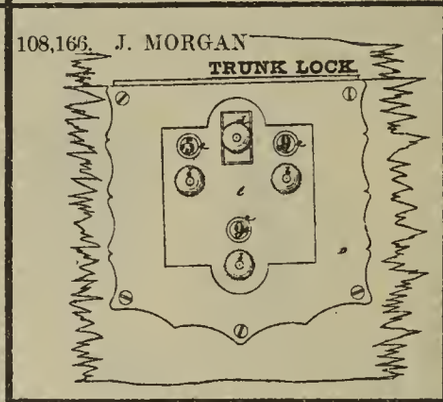
108,164 L. V. B. MARTIN
SUBSOIL PLOW



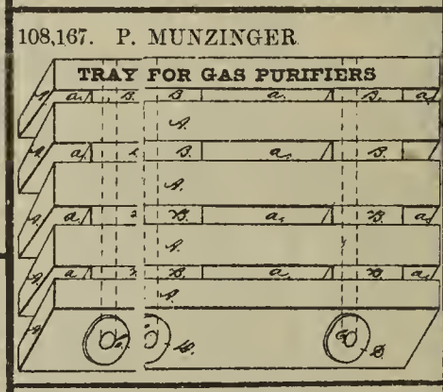
108,165. R. MONTGOMERY
PILE FOR CORRUGATED BEAMS.



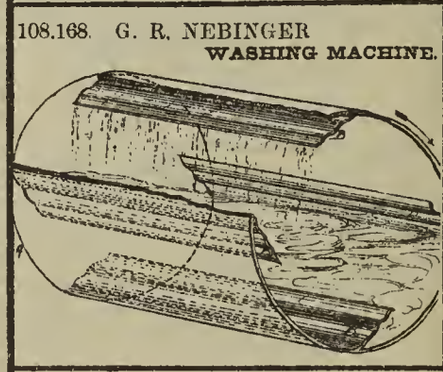
108,166. J. MORGAN
TRUNK LOCK.



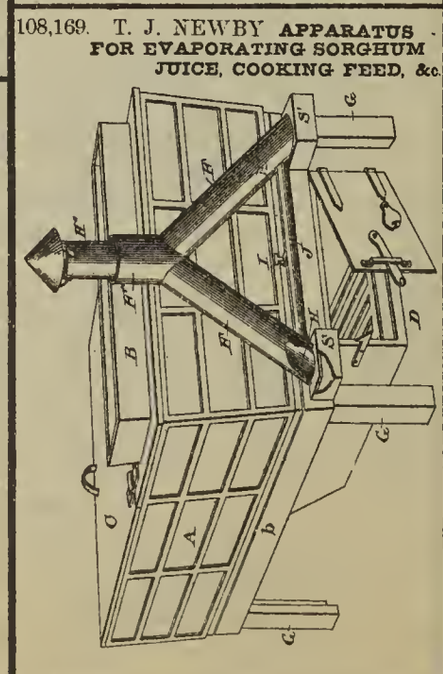
108,167. P. MUNZINGER
TRAY FOR GAS PURIFIERS



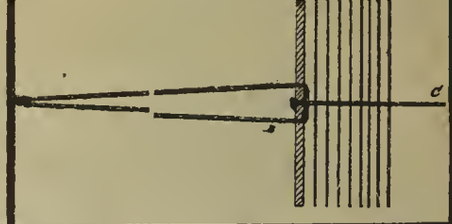
108,168. G. R. NEBINGER
WASHING MACHINE.



108,169. T. J. NEWBY APPARATUS
FOR EVAPORATING SORGHUM
JUICE, COOKING FEED, &c.

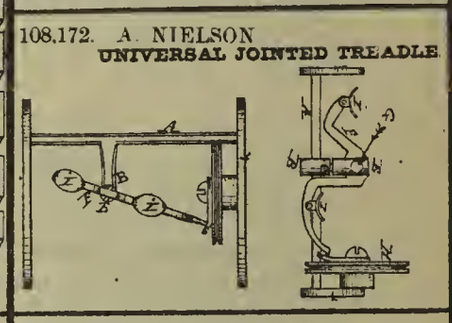


108,170. O. NICHOLSON COLORTROPE.

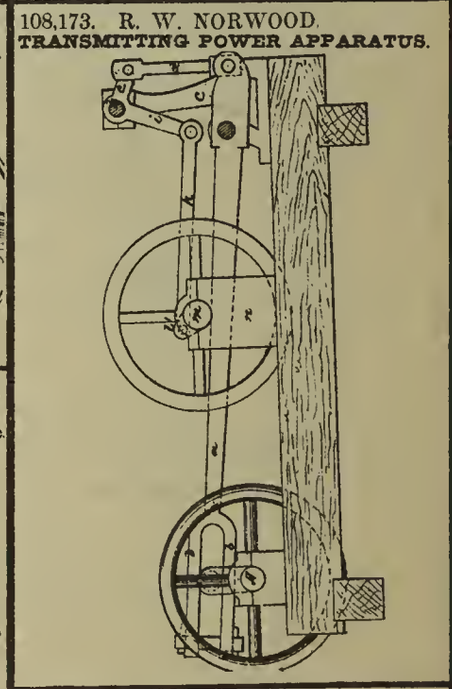


108,171 J. G. NICOLAY SASH FASTENER.

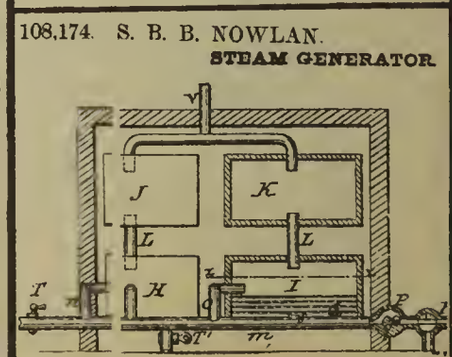
108,172. A. NIELSON
UNIVERSAL JOINTED TREADLE.



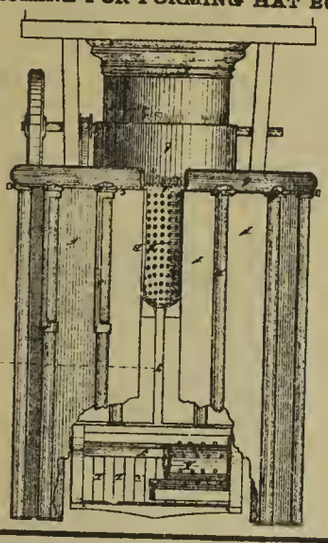
108,173. R. W. NORWOOD.
TRANSMITTING POWER APPARATUS.



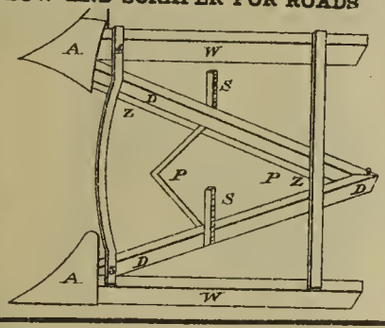
108,174. S. B. B. NOWLAN.
STEAM GENERATOR.



108,175. I. NUTT.
MACHINE FOR FORMING HAT BODIES.

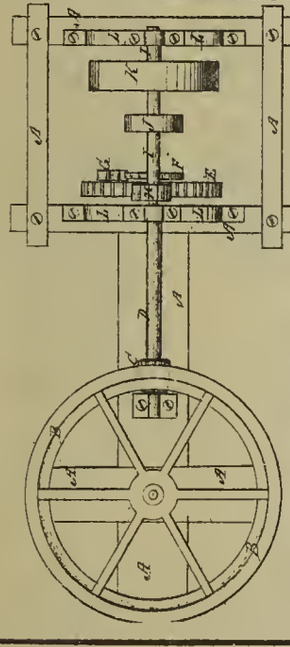


108,176. T. B. PARKER. COMBINED PLOW AND SCRAPER FOR ROADS

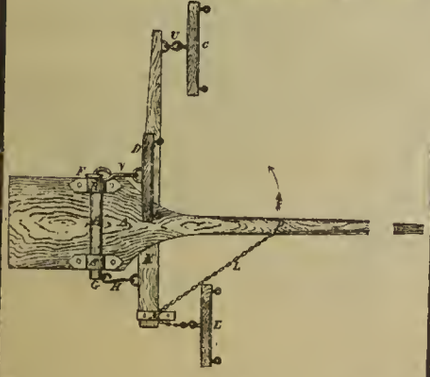


108,177. H. PEMBERTON.
MANUFACTURE OF PAPER.

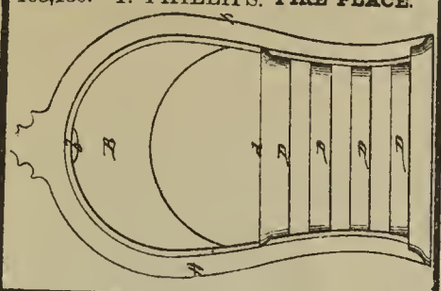
108,178. L. A. PETER. HORSE POWER.



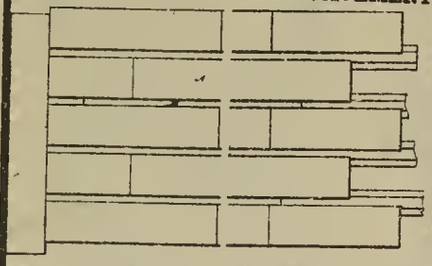
108,179. J. C. PFEIL
THREE HORSE EQUALIZER.



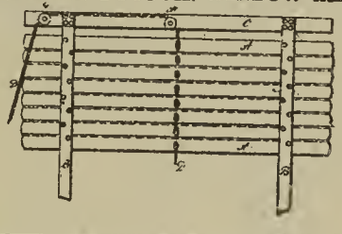
108,180. T. PHILLIPS. FIRE PLACE.



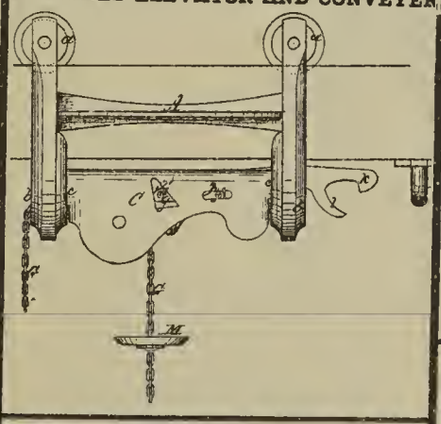
108,181A. W. PLATT WOOD PAVEMENT



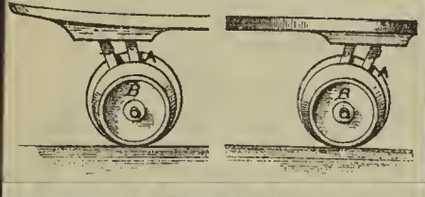
108,182. S. POCOCK. WINDOW BLIND.



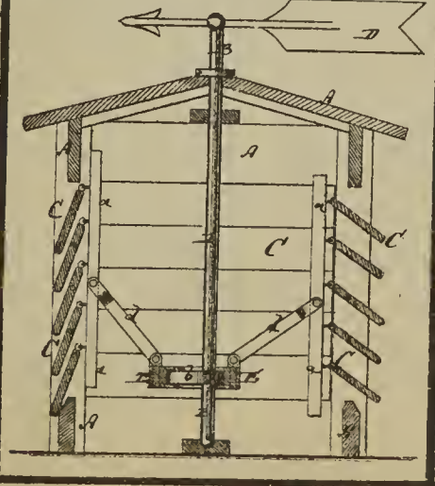
108,183. T. J. POWELL.
COMBINED ELEVATOR AND CONVEYER.



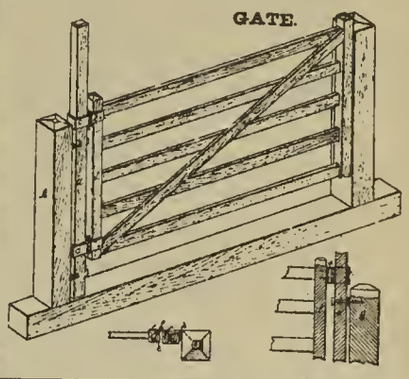
108,184. J. POLLITT. PARLOR SKATE.



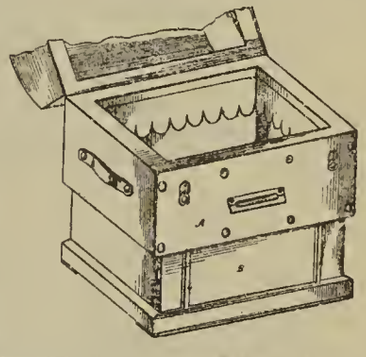
108,185. B. F. PRENTIS.
AUTOMATIC VENTILATOR



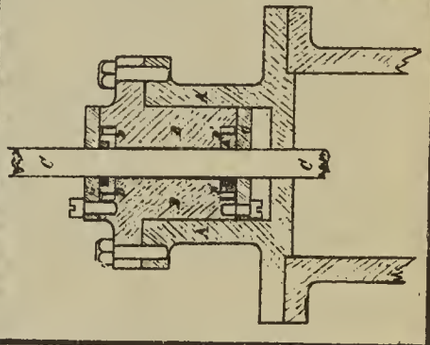
108,186. S. REGAN AND E. MEUSY
GATE.



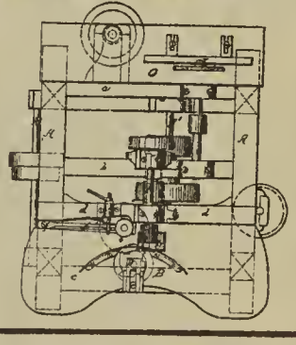
108,187. J. RICE. EXTENSION TRUNK.



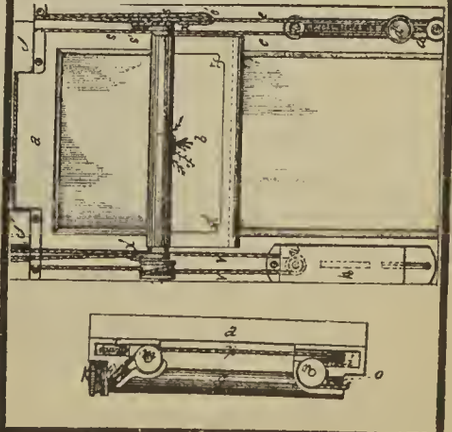
108,188. E. A. RICHMOND
PISTON ROD PACKING.



108,189. W. H. RODEHEAVER.
MACHINE FOR DRESSING FELLIES.

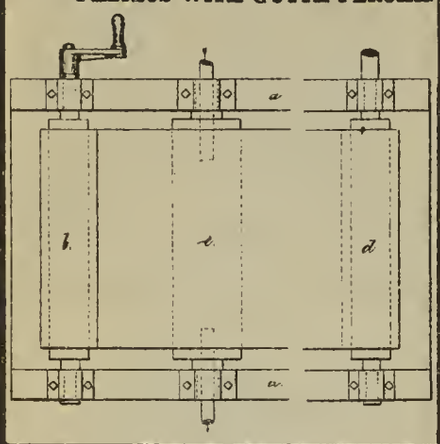


108,190. F. ROOT CURTAIN FIXTURE.



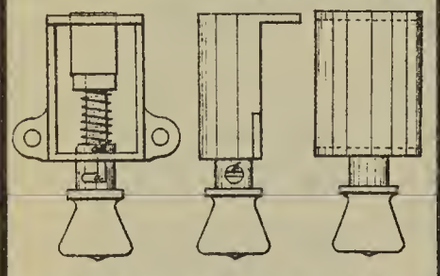
108,191. J. P. RUST **REMOVING GREASE FROM WASTE LEATHER.**

108,192. E. A. SCHUETTE. **APPARATUS FOR WATER PROOFING FABRICS WITH GUTTA PERCHA.**

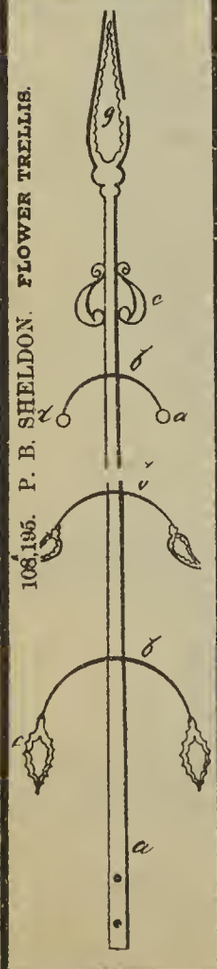


108,193. M. SCHWERIN. **CASTER FOR TRUNKS.**

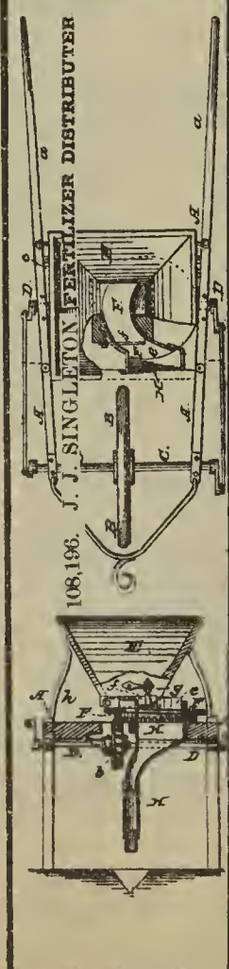
108,194. P. T. SHARE **SASH FASTENER.**



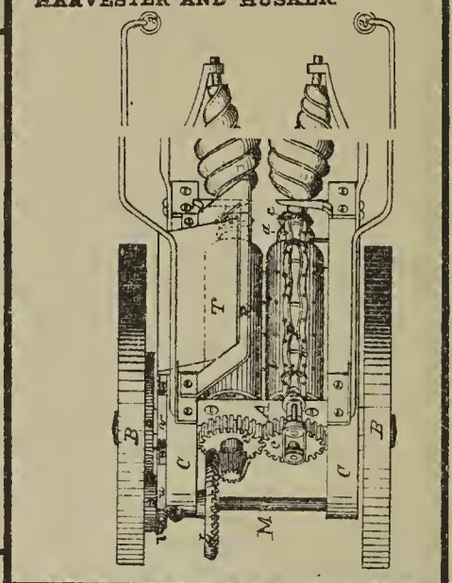
108,195. P. B. SHELDON. **FLOWER TRELLIS.**



108,196. J. J. SINGLETON **FERTILIZER DISTRIBUTER**



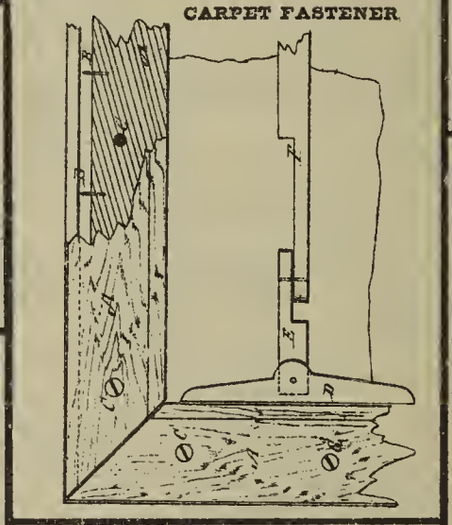
108,197. A. SMITH **COMBINED CORN HARVESTER AND HUSKER.**



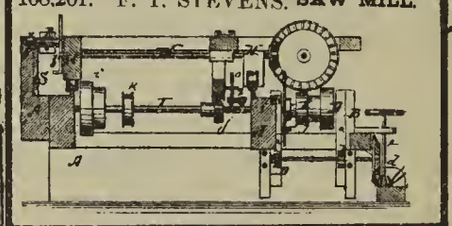
108,198. F. M. SMITH **PURIFYING BRINE FOR THE MANUFACTURE OF SALT.**

108,199. H. SMITH. **WASH FOR THE CURE OF SCAB IN SHEEP &c.**

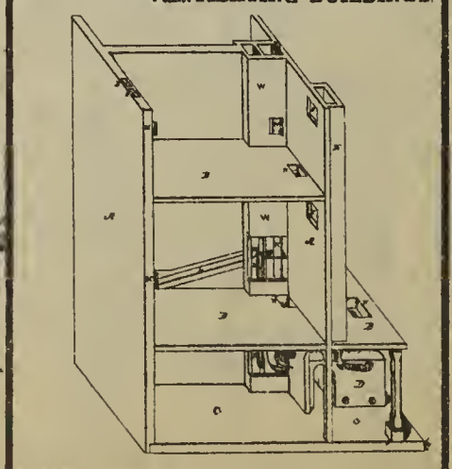
108,200. J. H. STANTON. **CARPET FASTENER.**



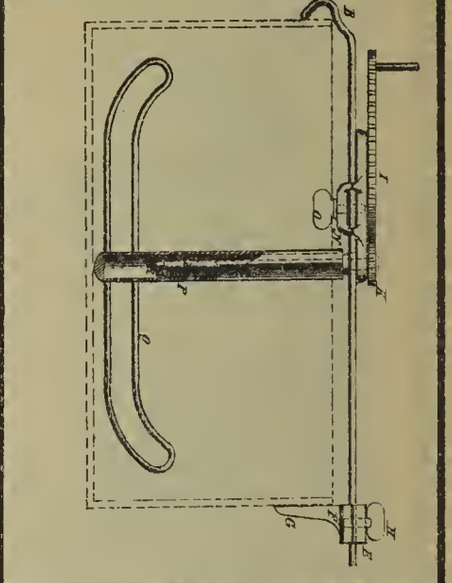
108,201. F. T. STEVENS. **SAW MILL.**



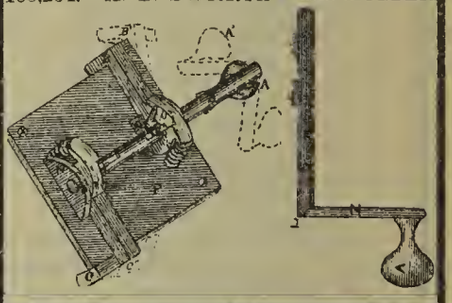
108,202. J. STOVER **APPARATUS FOR HEATING AND VENTILATING BUILDINGS.**



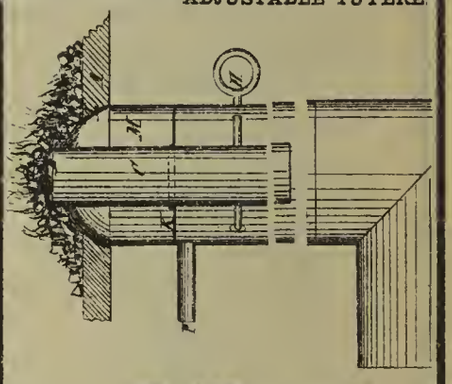
108,203. D. M. SWARTZ **EGG BEATER.**



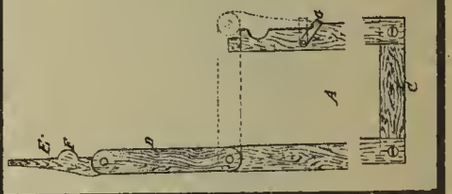
108,204. H. B. SWARTZ **SASH HOLDER.**



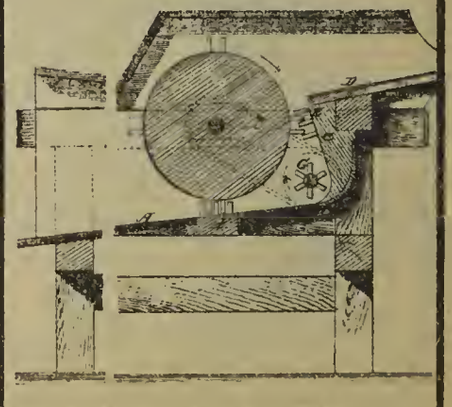
108,205. P. SWEENY **ADJUSTABLE TUYERE.**



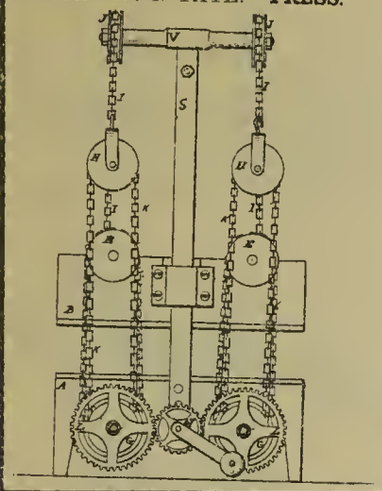
108,206. F. TALBOT. **SLEIGH LOCK.**



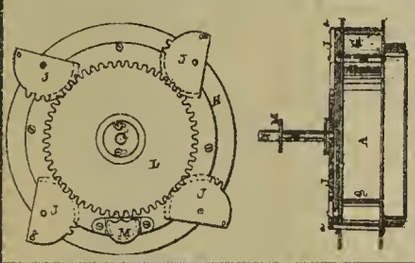
108,207. W. H. TAPPEY, W. C. LUMSDEN AND A. STEEL. **SHUCK HACKLING MACHINE.**



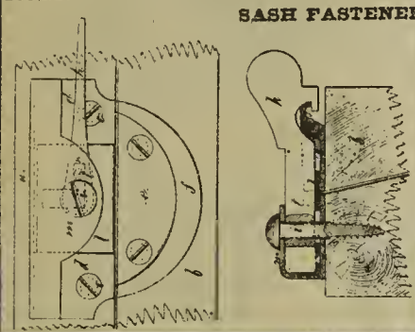
108,208. W. I. TATE. **PRESS.**



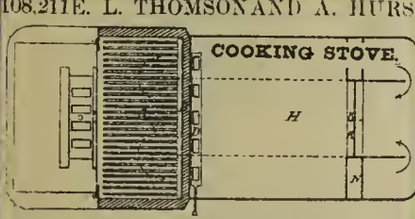
108,209 A. P. TEACHOUT **WATER WHEEL**



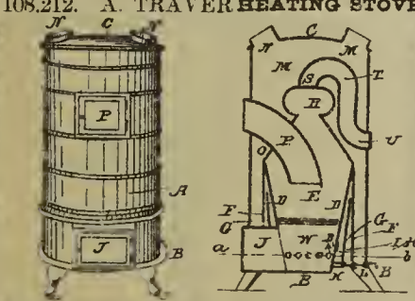
108,210 W. H. THOMAS **SASH FASTENER**



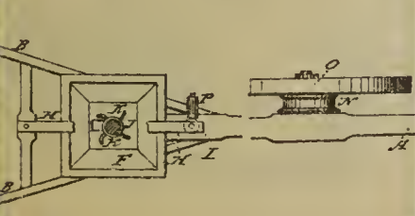
108,211 E. L. THOMSON AND A. HURSI **COOKING STOVE.**



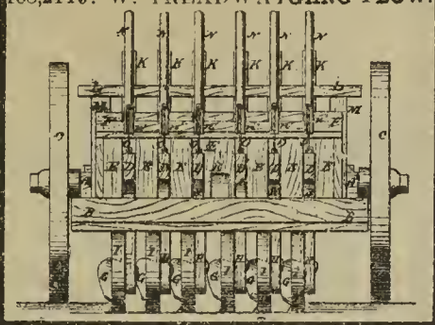
108,212. A. TRAVER **HEATING STOVE.**



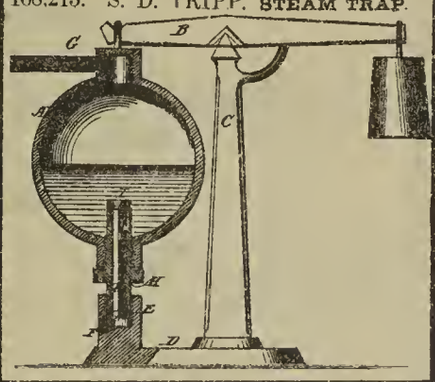
108,213. W. L. TRAYUHAM **SEED PLANTER AND GUANO DISTRIBUTER.**



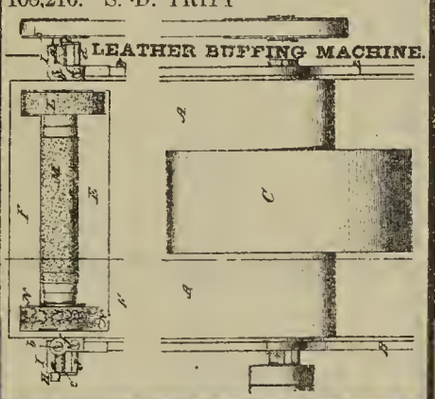
108,214 J. W. TREADWAY **GANG PLOW.**



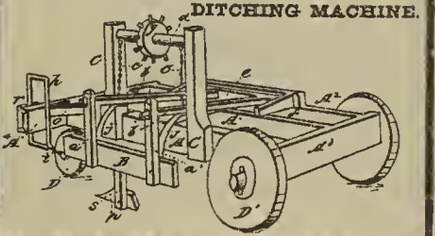
108,215. S. D. TRIPP. **STEAM TRAP.**



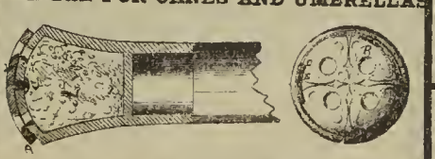
108,216. S. D. TRIPP **LEATHER BUFFING MACHINE.**



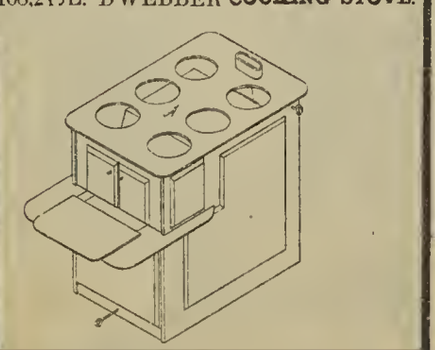
108,217. H. VANNATTA. **DITCHING MACHINE.**



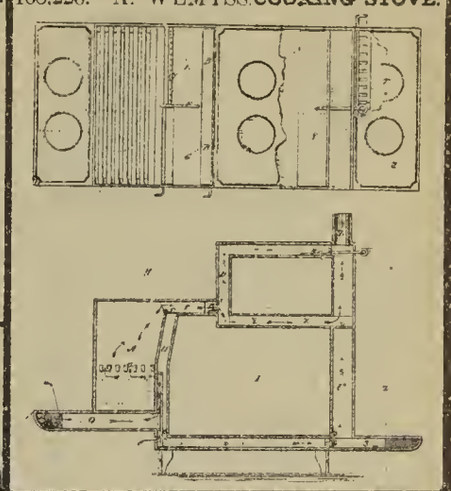
108,218. A. WANNER. **HANDLE FOR CANES AND UMBRELLAS**



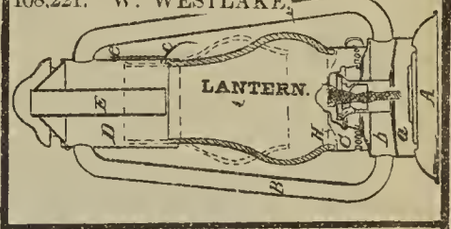
108,219 L. DWEBBER **COOKING STOVE.**



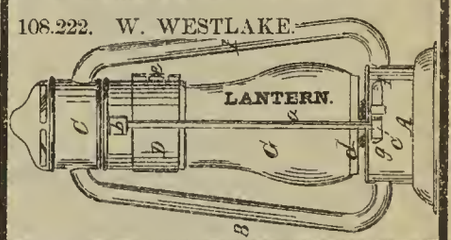
108,220. A. WEMYSS **COOKING STOVE.**



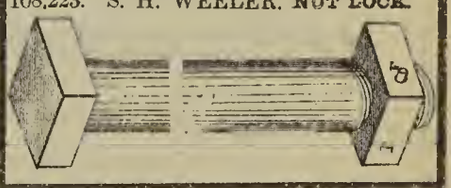
108,221. W. WESTLAKE. **LANTERN.**



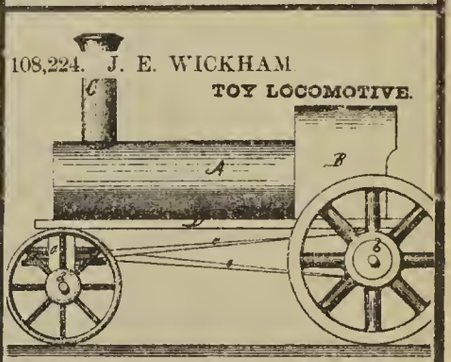
108,222. W. WESTLAKE. **LANTERN.**



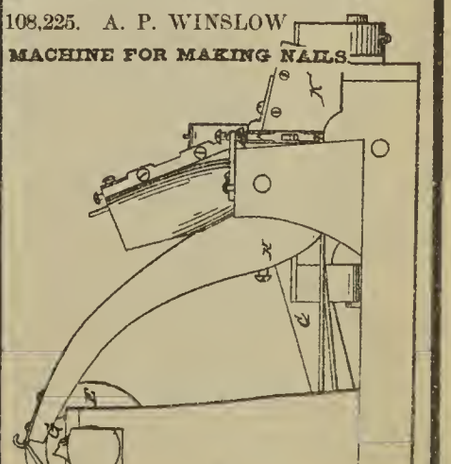
108,223. S. H. WEELER. **NUT LOCK.**



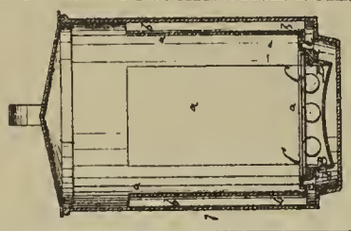
108,224. J. E. WICKHAM **TOY LOCOMOTIVE.**



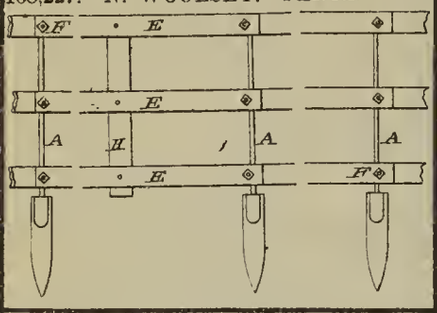
108,225. A. P. WINSLOW **MACHINE FOR MAKING NAILS**



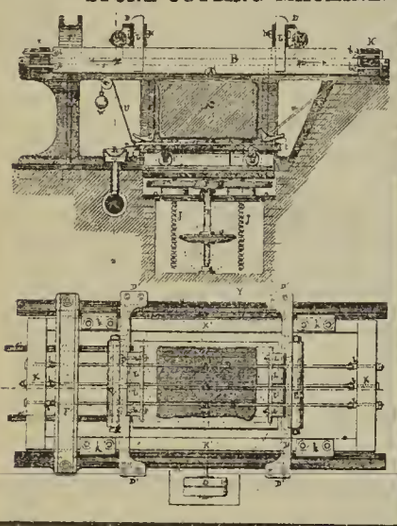
108,226 H. T. WOODMAN WASH BOILER



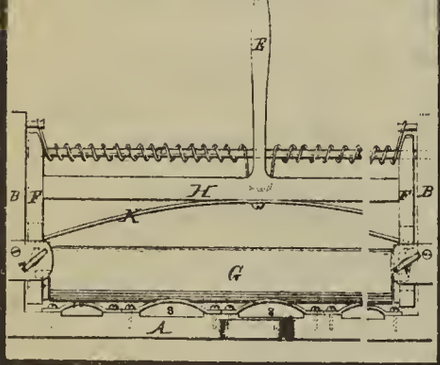
108,227. N. WOOLSEY. FENCE.



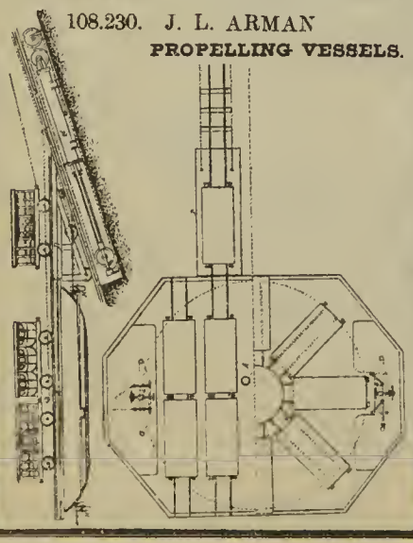
108,228. H. AND J. L. YOUNG STONE CUTTING MACHINE.



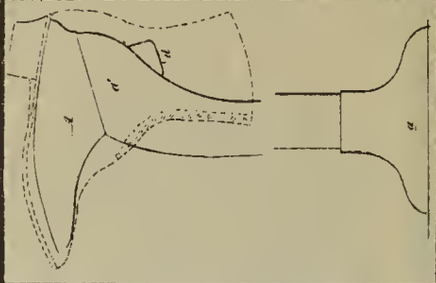
108,229. A. L. ZENT. LEATHER CUTTING MACHINE.



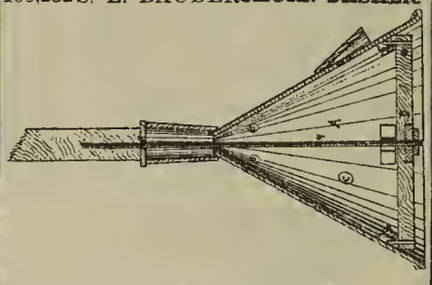
108,230. J. L. ARMAN PROPELLING VESSELS.



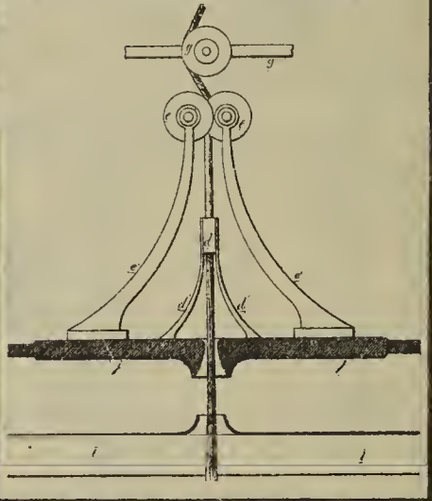
108,231. D. BAINBRIDGE ANVIL LAST.



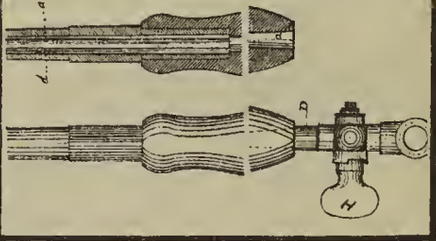
108,232 S. E. BAUDER CHURN DASHER.



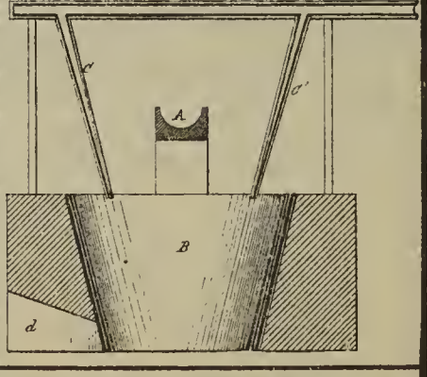
108,233. E. BAZIN. APPARATUS FOR SPINNING HEMP, FLAX, AND OTHER FIBROUS SUBSTANCES.



108,234. J. O. BENTLEY AND J. JACKSON. CURLING IRON.

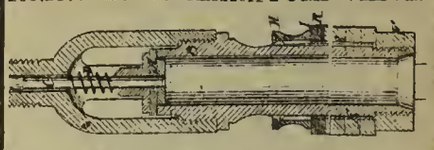


108,235. E. J. BIRD. EXTRACTING IRON FROM THE SLAG OF BLAST FURNACES.

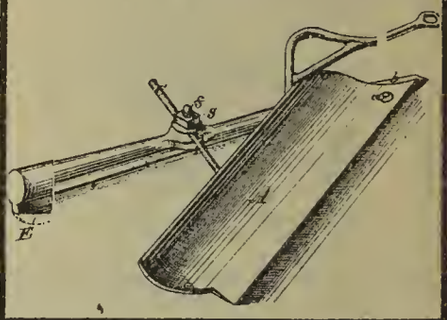


108,236. O. BRUECK. SPRING FAN.

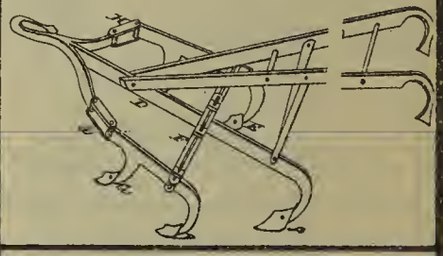
108,237. D. W. CLARK PUMP VALVE.



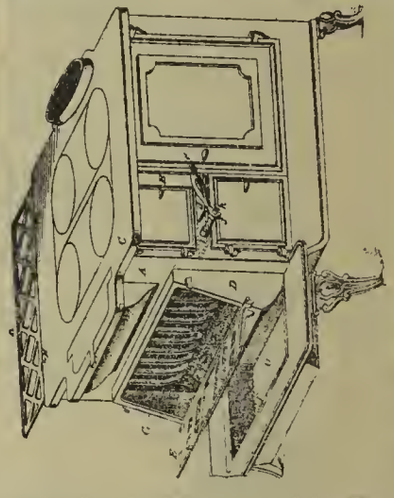
108,238. G. CLARK. ROAD SCRAPER AND DITCHER.



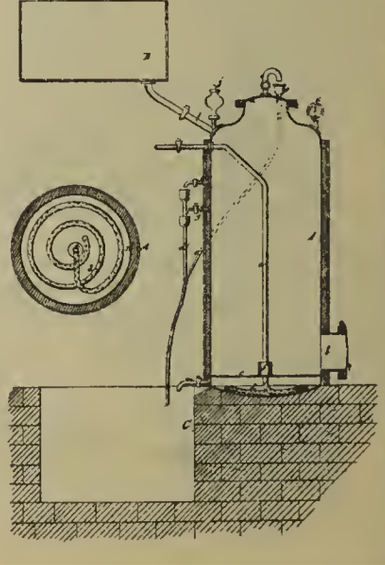
108,239. W. C. CLIFTON. CORN PLOW.



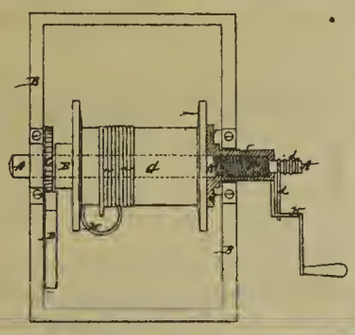
108,240. W. C. DAVIS. COOK STOVE.



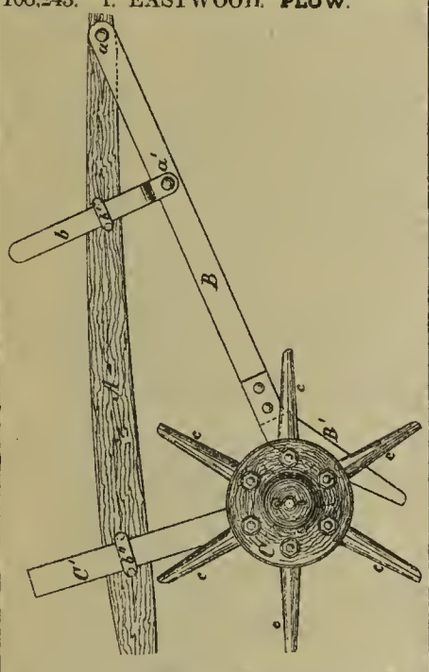
108,241. A. H. F. DEININGER DISINTEGRATING FIBROUS MATERIAL FOR PAPER PULP, &c.



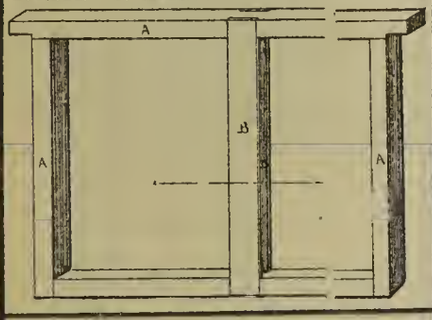
108,242. I. DEKLE. **WATER ELEVATOR.**



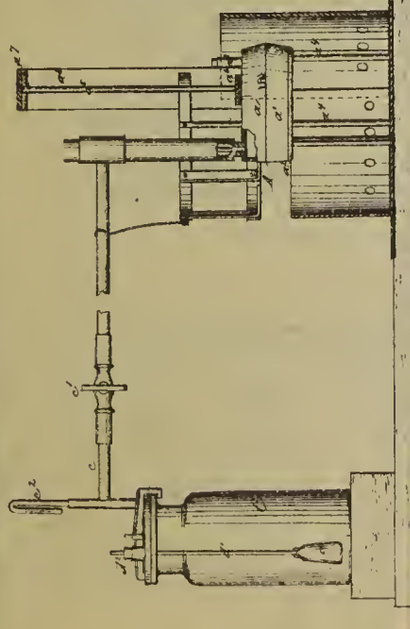
108,243. I. EASTWOOD. **PLOW.**



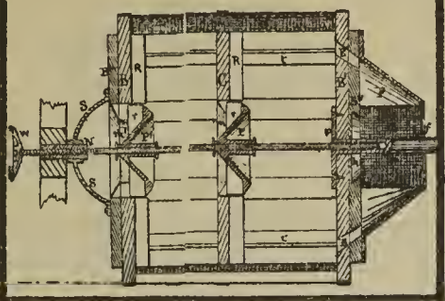
108,244. C. EMBREY. **BEE HIVE.**



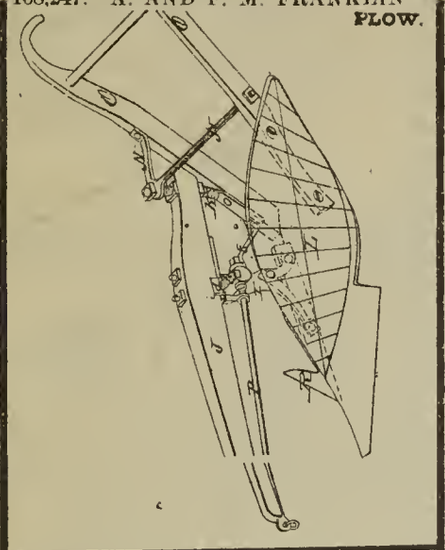
108,245. J. U. L. FEEMSTER **CASTING DENTAL PLATES.**



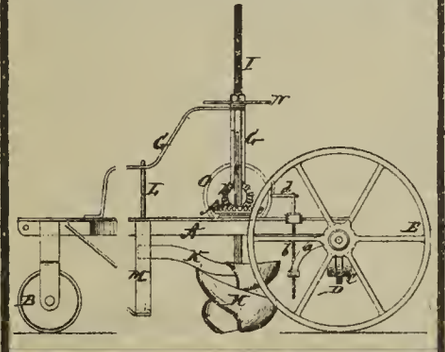
108,246. J. FICKINGER **FLOUR BOLT.**



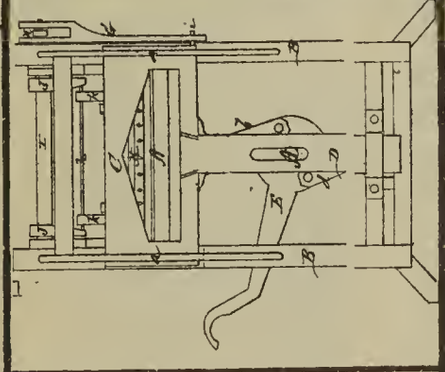
108,247. A. AND F. M. FRANKLIN **PLOW.**



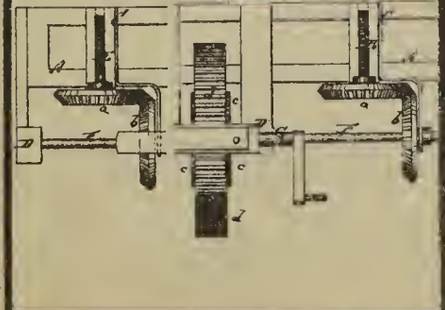
108,248 S. F. GARD **DITCHING MACHINE.**



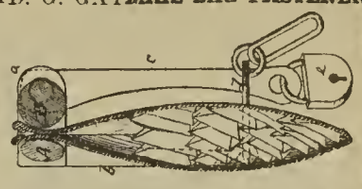
108,249. F. E. GARNER **FEED CUTTER.**



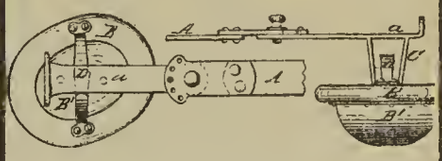
108,250. D. G. GAY. **SAW MILL.**



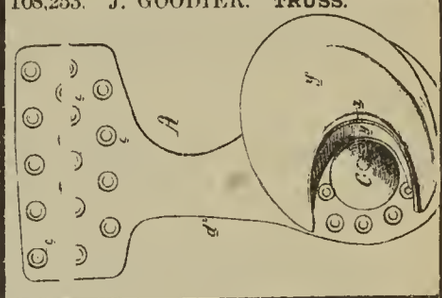
108,251 D. G. GAY **MAIL BAG FASTENER.**



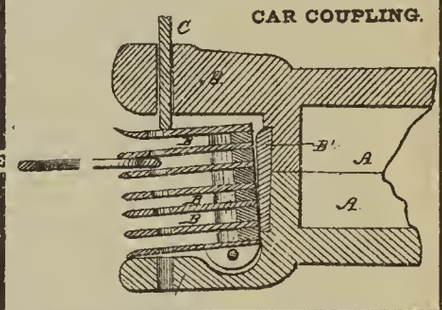
108,252. J. GEISS. **TRUSS.**



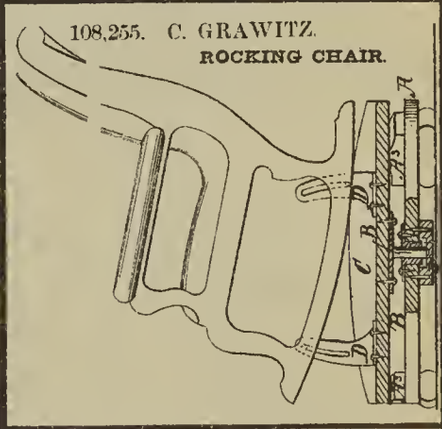
108,253. J. GOODIER. **TRUSS.**



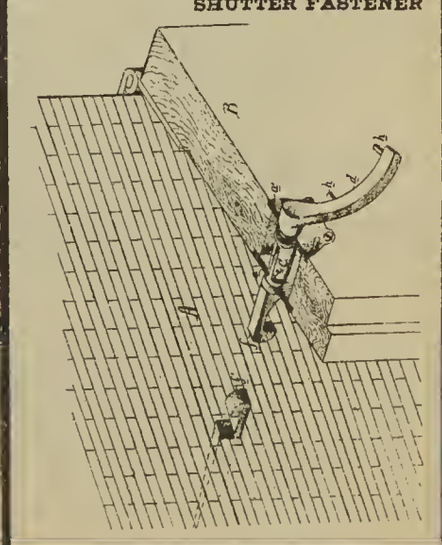
108,254. W. F. GRASLER. **CAR COUPLING.**



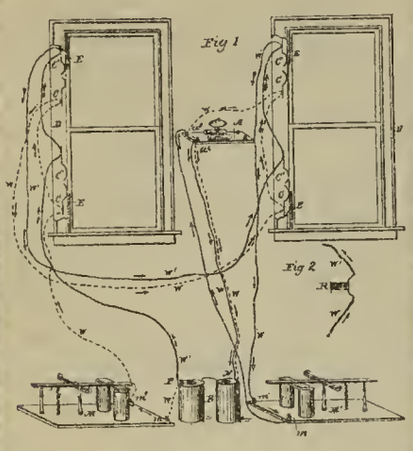
108,255. C. GRAWITZ. **ROCKING CHAIR.**



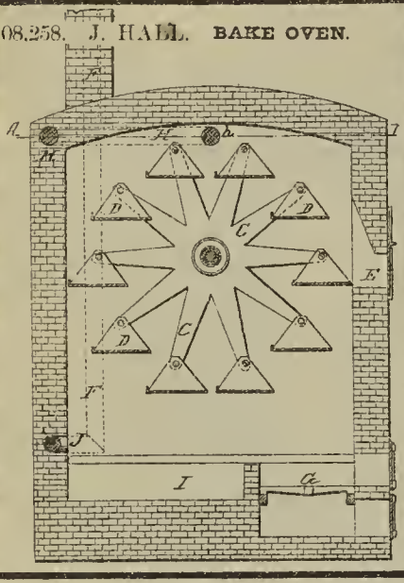
108,256. H. GROW **SHUTTER FASTENER.**



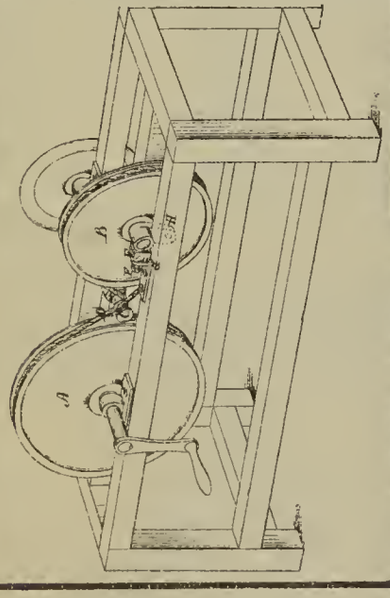
108,257. W. B. GUERNSEY. ELECTRO MAGNETIC BURGLAR ALARM



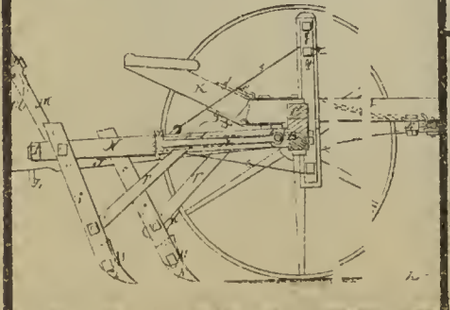
108,258. J. HALL. BAKE OVEN.



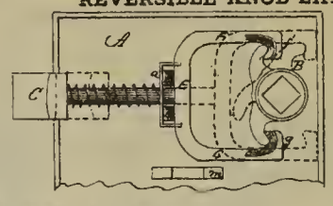
108,259. G. B. HAMLIN. BELT GEARING



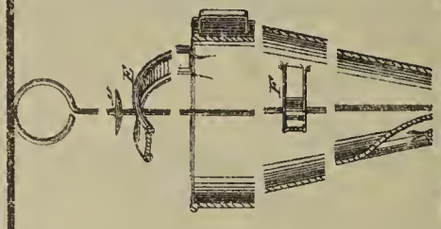
108,260. V. P. HARRIS. CULTIVATOR.



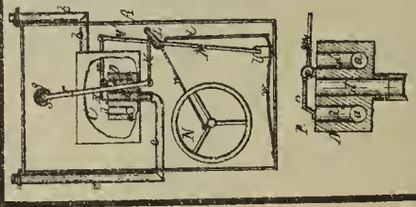
108,261. A. M. HILL. REVERSIBLE KNOB LATCH.



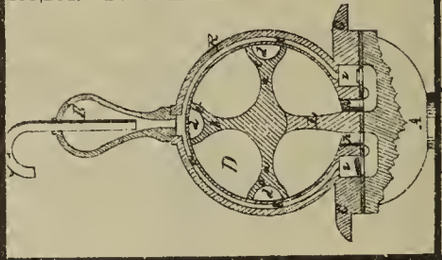
108,262. B. F. HINKLEY. GUANO DISTRIBUTER AND SEED SOWER



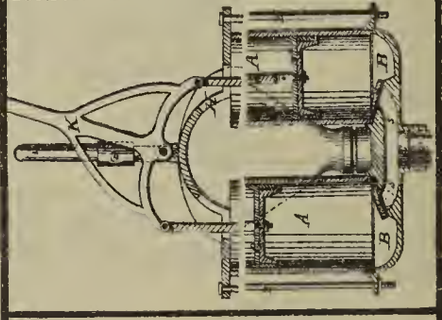
108,263. P. HODGE. DRY GAS METER.



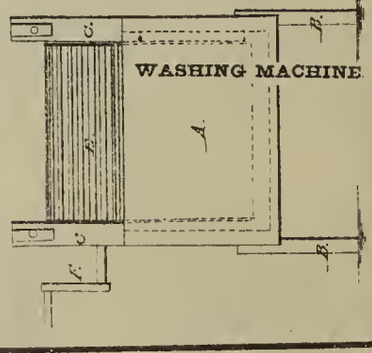
108,264. D. O HOLMAN. PUMP.



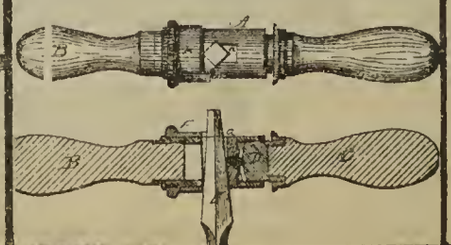
108,265. D. O. HOLMAN. PUMP.



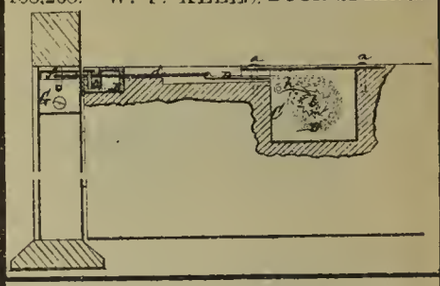
108,266. B. ILLINGWORTH WASHING MACHINE.



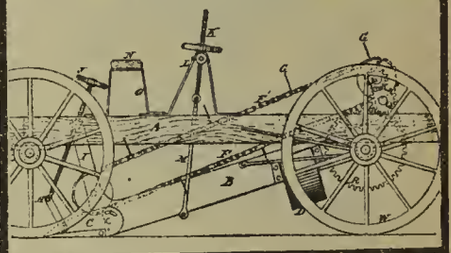
108,267. W. A. IVES. AUGER HANDLE.



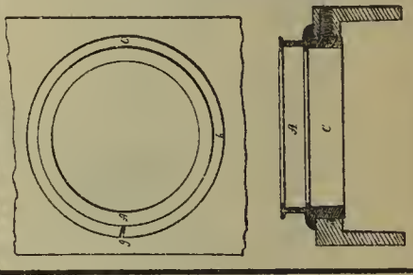
108,268. W. F. KELLS. DOOR SPRING.



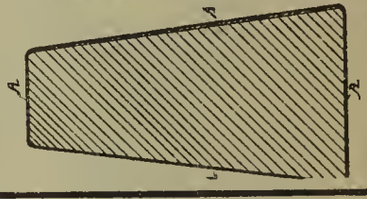
108,269. S. M. KING MACHINE FOR CLEANING AND DITCHING RICE FIELDS



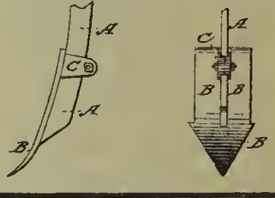
108,270. G. W. KNIGHT HOLDER OF SPINNING RINGS.



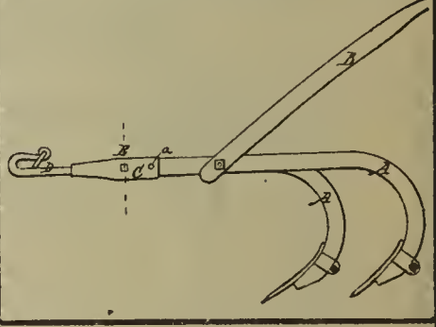
108,271. J. L. LUCAS. MANUFACTURE OF BLACKING



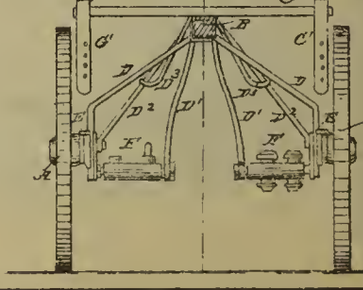
108,272. L. LUPPEN SHOVEL PLOW.



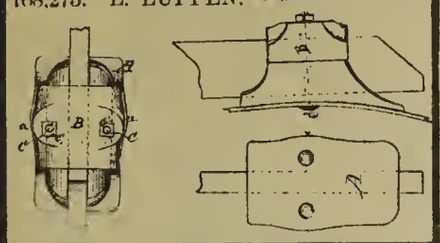
108,273. L. LUPPEN. SHOVEL PLOW



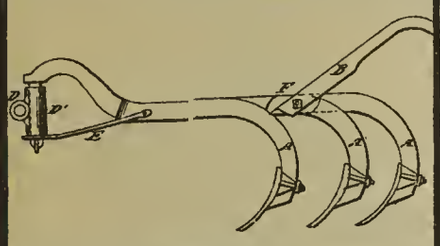
108,274. L. LUPPEN. SHOVEL PLOW.



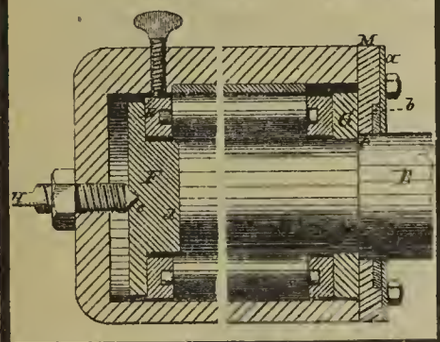
108,275. L. LUPPEN. SHOVEL PLOW.



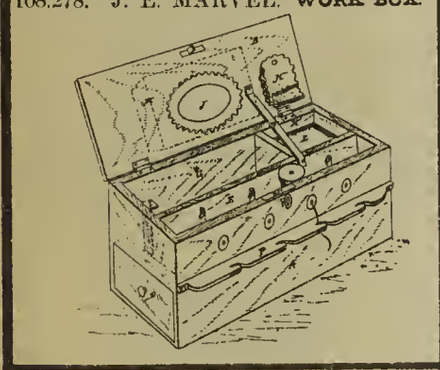
108,276. L. LUPPEN. SHOVEL PLOW.



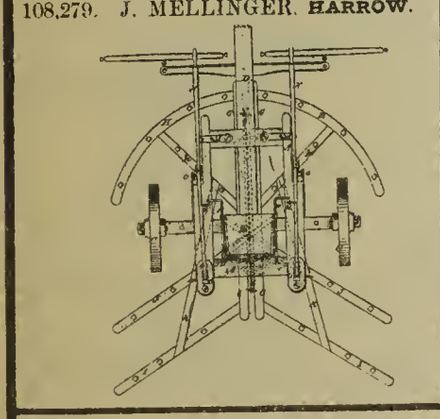
108,277. G. F. LYNCH RAILWAY CAR AXLE BOX.



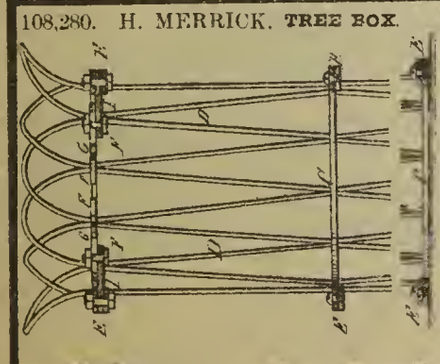
108,278. J. E. MARVEL. WORK BOX.



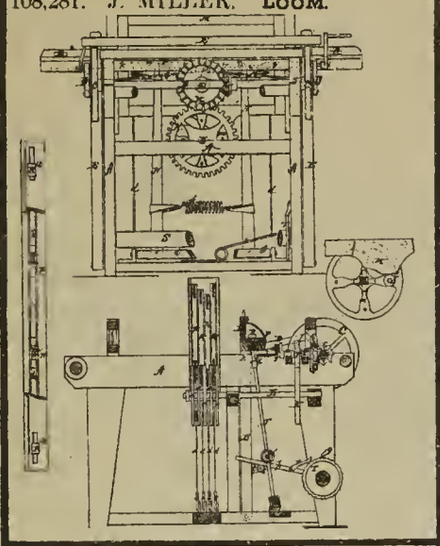
108,279. J. MELLINGER. HARROW.



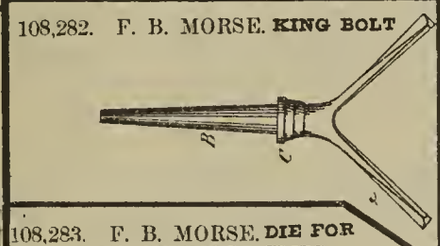
108,280. H. MERRICK. TREE BOX.



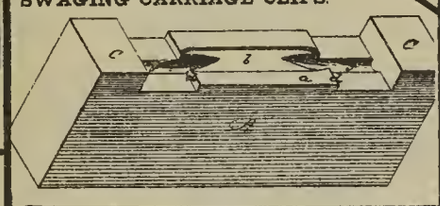
108,281. J. MILLER. LOOM.



108,282. F. B. MORSE. KING BOLT



108,283. F. B. MORSE. DIE FOR SWAGING CARRIAGE CLIPS.



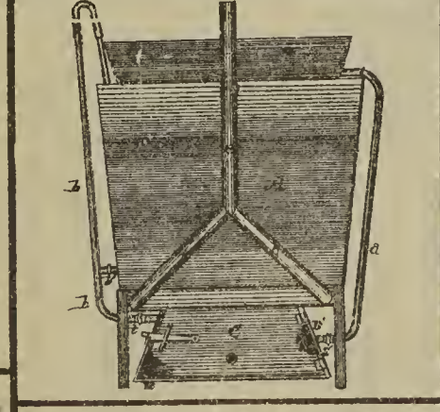
108,284. E. D. MURFEY IMPREGNATING FIBROUS MATERIAL FOR PACKING, &c

108,285. E. D. MURFEY SATURATING FIBROUS MATERIAL WITH POWDERED SUBSTANCES FOR BEARINGS AND PACKING

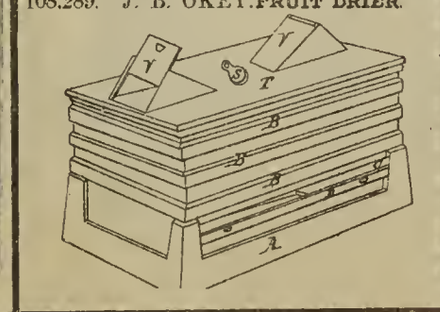
108,286. E. D. MURFEY MATERIAL FOR PACKING AND BEARINGS.

108,287. C. M. NES MANUFACTURE OF STEEL.

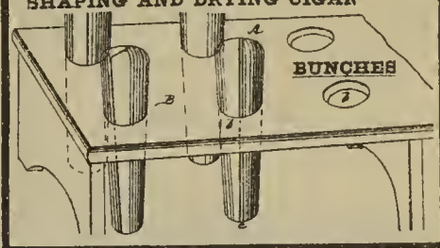
108,288. T. J. NEWBY. APPARATUS FOR COOKING AND EVAPORATING.



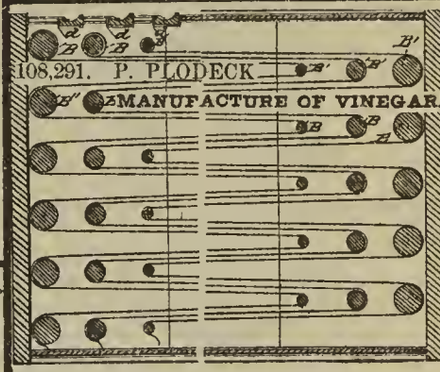
108,289. J. B. OKEY. FRUIT DRIER.



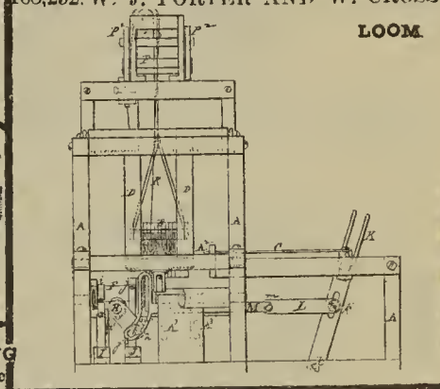
108,290. A. PEARL. MOLD FOR SHAPING AND DRYING CIGAR BUNCHES



108,291. P. PLODECK MANUFACTURE OF VINEGAR.

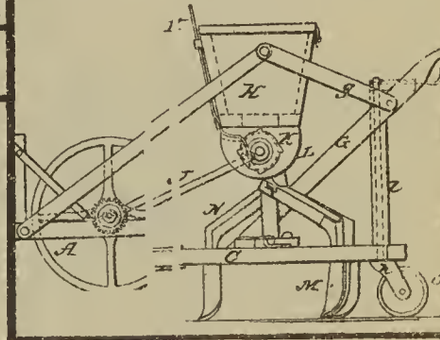


108,292. W. J. PORTER AND W. CROSS LOOM.

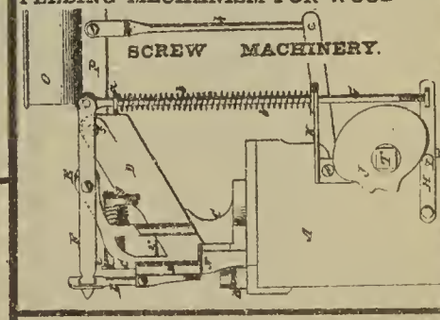


108,293. N. PURDEY. BOX OPENER.

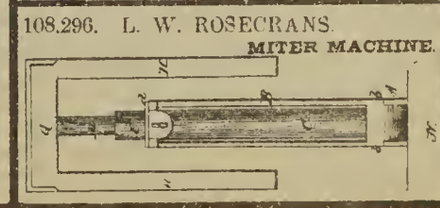
108,294. J. L. RITER. GRAIN DRILL



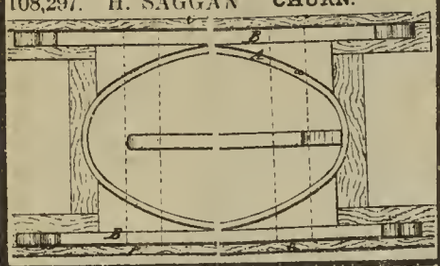
108,295. C. D. ROGERS. FEEDING MECHANISM FOR WOOD SCREW MACHINERY.



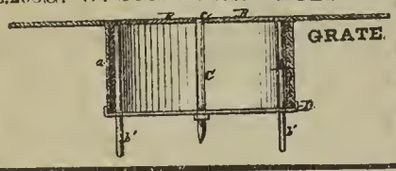
108,296. L. W. ROSECRANS. MITER MACHINE.



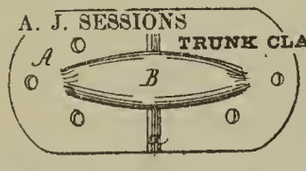
108,297. H. SAGGAN CHURN.



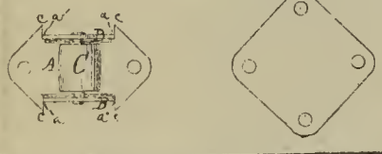
108,298. G. W. SCOTT COAL VAULT GRATE.



108,299. A. J. SESSIONS TRUNK CLAMP

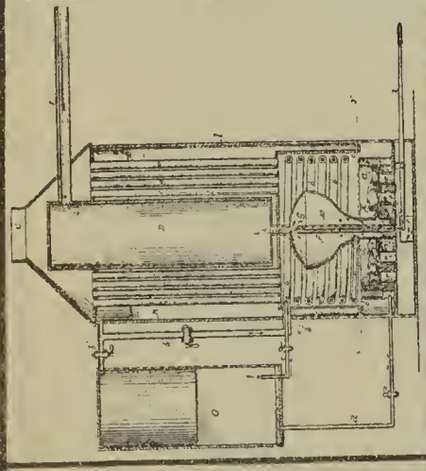


108,300. A. J. SESSIONS. CASTER FOR TRUNKS.



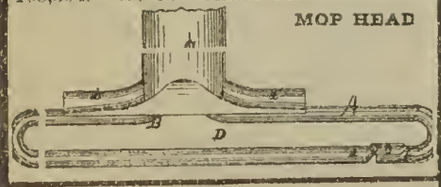
108,301. A. J. SHIRLEY. WELL TUBE.

108,302. L. STEVENS APPARATUS FOR GENERATING GAS FOR HEATING.



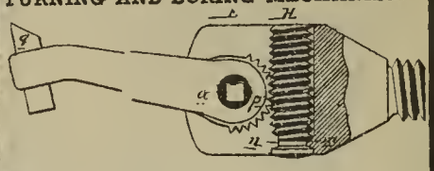
108,303. J. W. TUTTLE. CRUTCH.

108,304. W. P. VALENTINE MOP HEAD

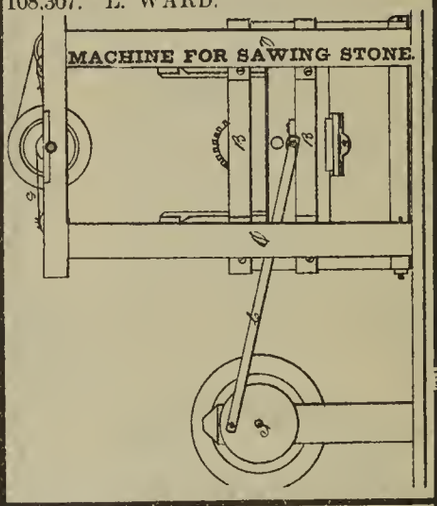


108,305. C. VAN HAAGEN PLANING MECHANISM

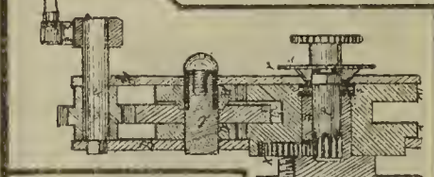
108,306. C. VAN HAAGEN TURNING AND BORING MECHANISM.



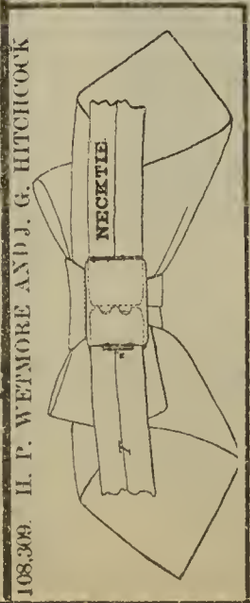
108,307. L. WARD. MACHINE FOR SAWING STONE.



108,308. M. WARNE. HEAD REST.

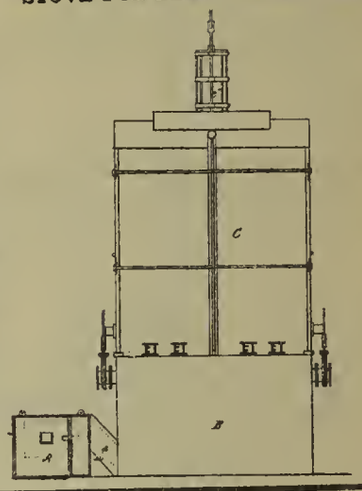


108,309. H. P. WETMORE AND J. G. HITCHCOCK NECKTIE

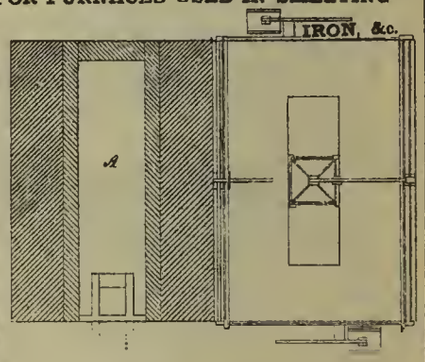


108,310. J. WHEELOCK BORING APPARATUS.

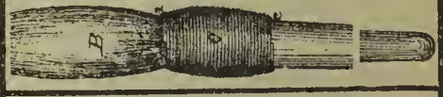
4,149. J. HENDERSON AND J. M. LAWFORD. HOT BLAST STOVE FOR BLAST FURNACES, &c.



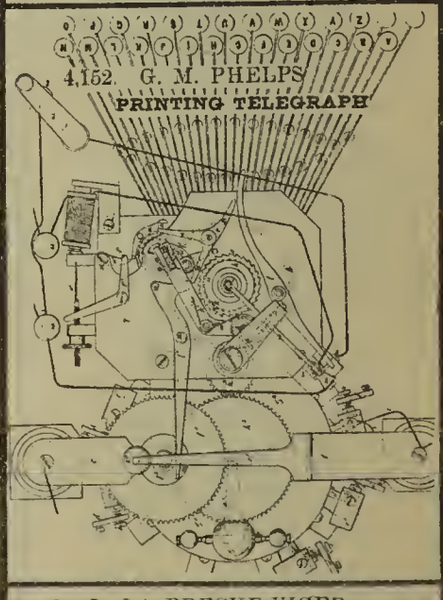
4,150. J. HENDERSON AND J. M. LAWFORD. APPARATUS FOR HEATING THE BLAST FOR FURNACES USED IN SMELTING IRON, &c.



4,151. J. McQUIDE. BRUSH.

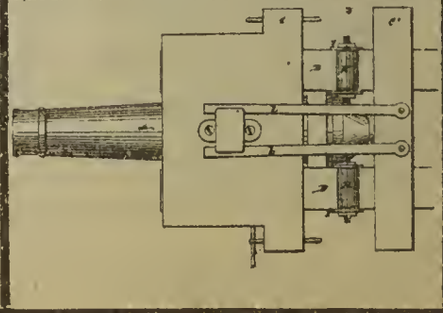


4,152. G. M. PHELPS PRINTING TELEGRAPH



4,153. L. LA BRECHE-VIGER MANUFACTURE OF CAST STEEL.

4,154. J. W. WILSON. GUN CARRIAGE.



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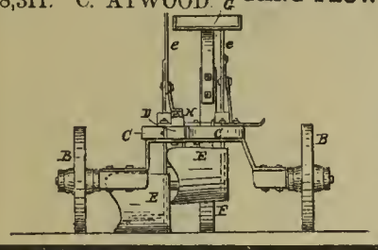
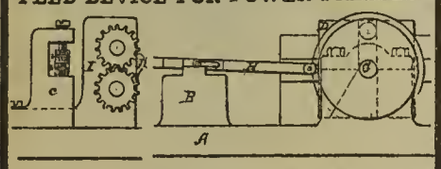
OCTOBER 18, 1870.

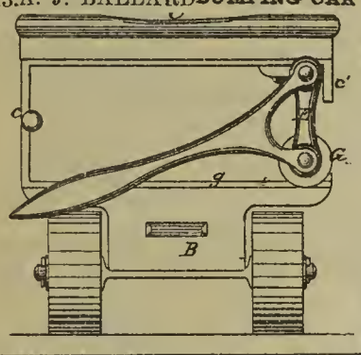
108,311. C. ATWOOD. GANG PLOW.



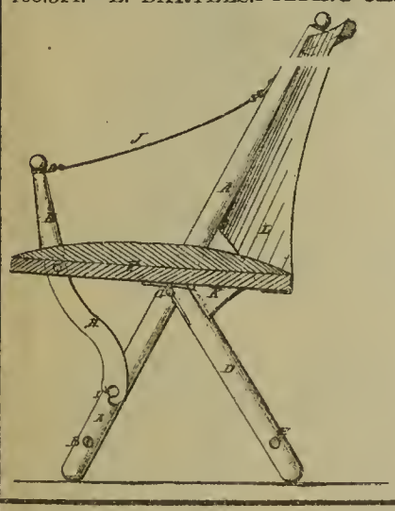
108,312. P. E. AUSTIN. FEED DEVICE FOR POWER PRESSES.



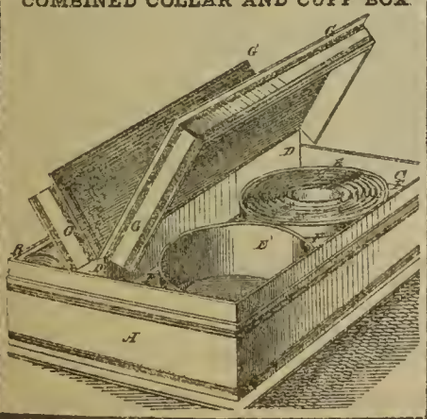
108,313. A. J. BALLARD. DUMPING CAR



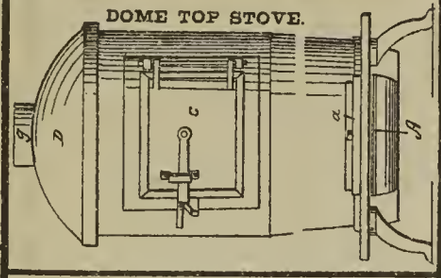
108,314. E. BARTELS. FOLDING CHAIR



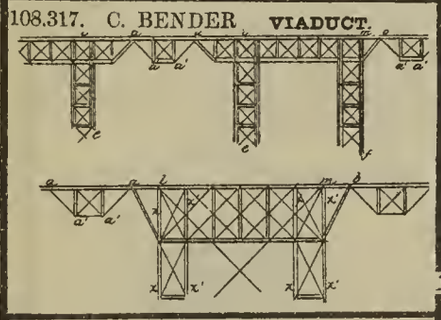
108,315. J. C. BAUER. COMBINED COLLAR AND CUFF BOX.



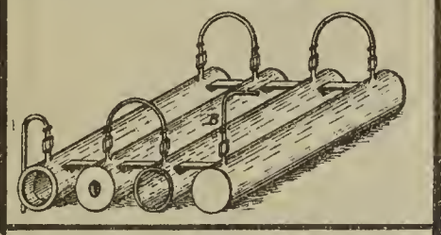
108,316. P. D. BECKWITH. DOME TOP STOVE.



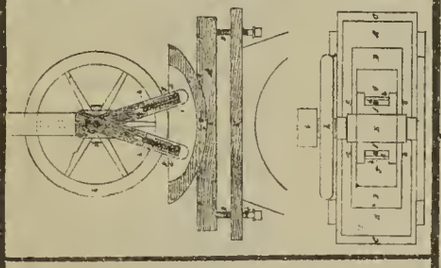
108,317. C. BENDER. VIADUCT.



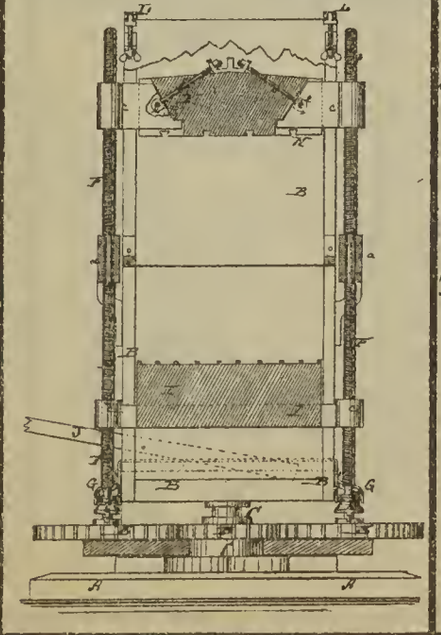
108,318. E. BIGELOW. LIQUID COOLER FOR COOLING LIQUIDS UNDER PRESSURE.



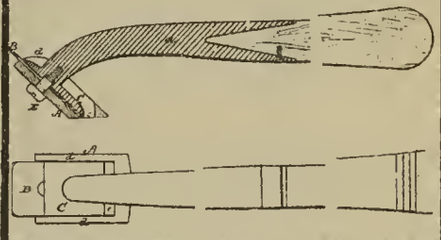
108,319. M. B. BISHOP. MACHINE FOR BOARDING LEATHER.



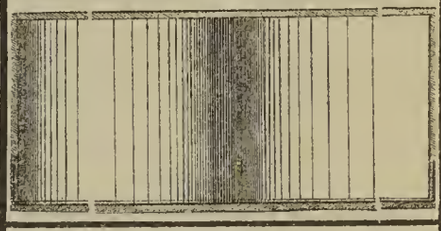
108,320. S. BOOTON. COTTON PRESS.



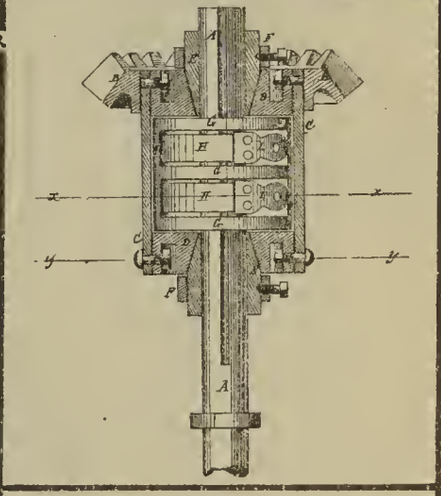
108,321. J. R. BROWN. BOX SCRAPER.



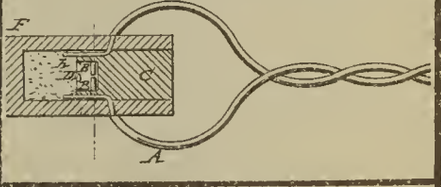
108,322. M. W. BROWN. BOX OR CASE TO CONTAIN BACON, HAMS, SIDES, &c.



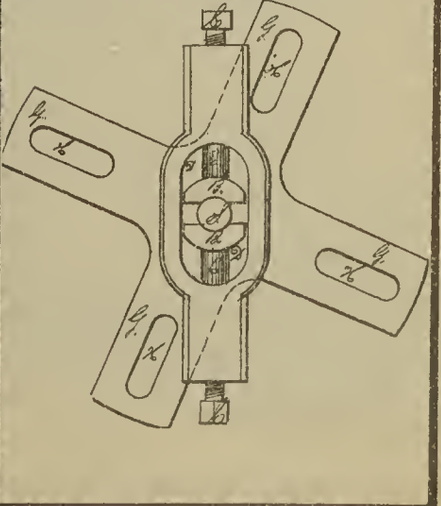
108,323. R. BROWN. ELASTIC SHAFTING.



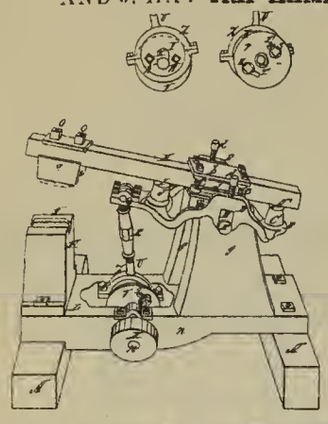
108,324. C. A. AND I. S. BROWNE. ELECTRIC BLASTING FUSE.



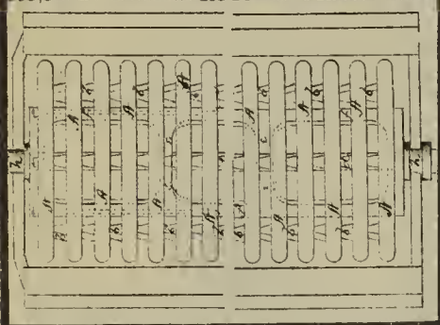
108,325. C. BUSS. LATHE DOG.



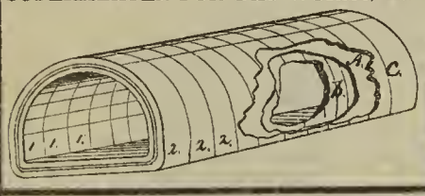
108,326. J. C. BUTTERFIELD AND J. HAY TRIP HAMMER.



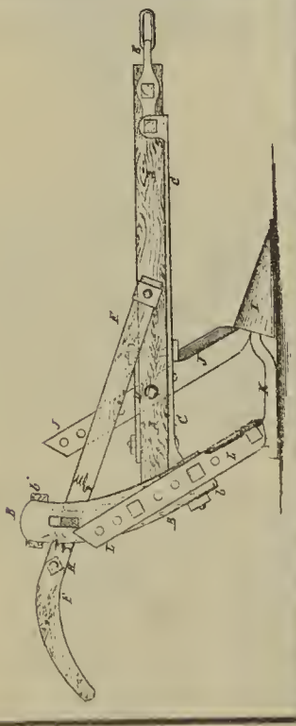
108,327 D. BYARD ROTARY GRATE BAR



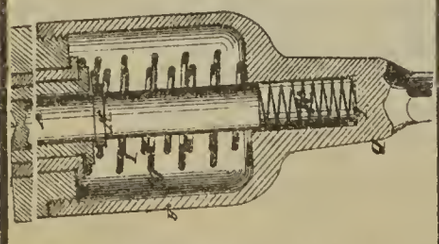
108,328. M. L. CALLENDER. SUPERHEATER FOR GAS WORKS, &c.



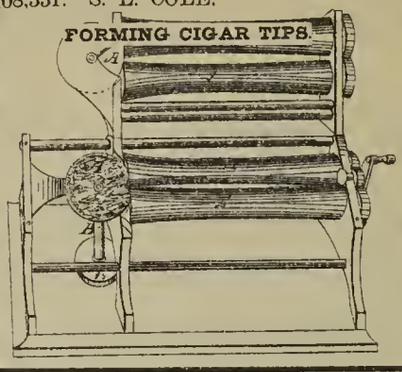
108,329. L. CARLETON SUBSOIL PLOW



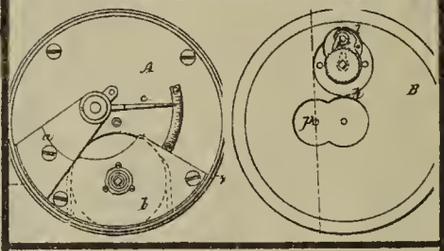
108,330. J. F. CASS. WRENCH



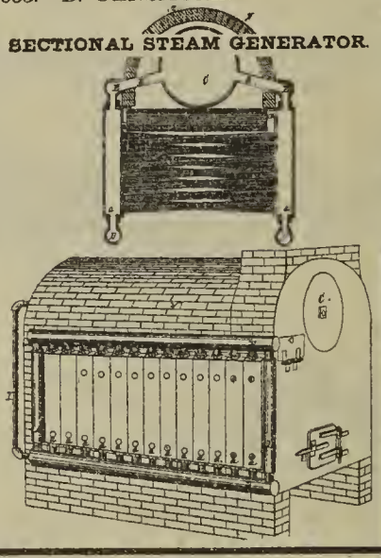
108,331. S. L. COLE. FORMING CIGAR TIPS.



108,332. D. G. CURRIER. CONSTRUCTION OF WATCHES.

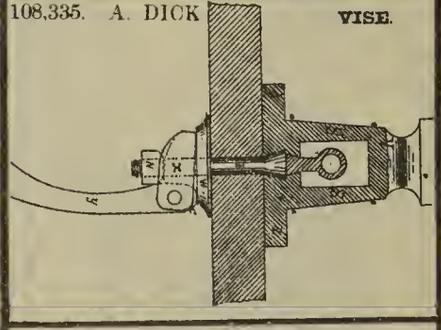


108,333. B. DENSMORE. SECTIONAL STEAM GENERATOR.

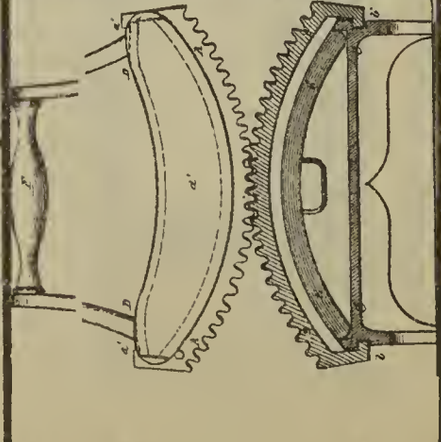


108,334 D. W. DENTON ROOFING FABRIC

108,335. A. DICK VISE.

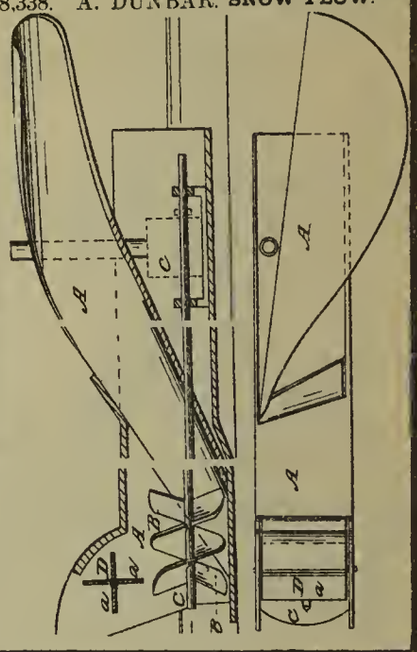


108,336. C. DION FLUTING MACHINE.

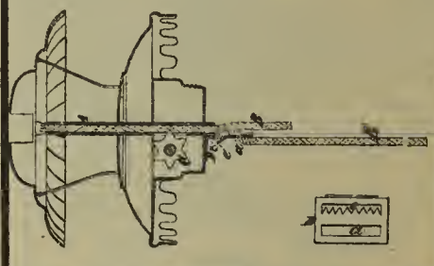


108,337. B. F. DUDLEY FINISHING COPPER PLATES

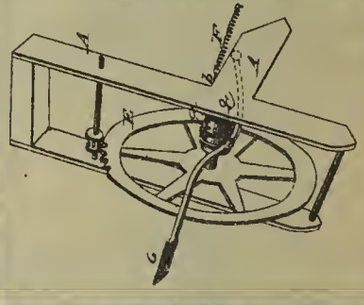
108,338. A. DUNBAR. SNOW PLOW.



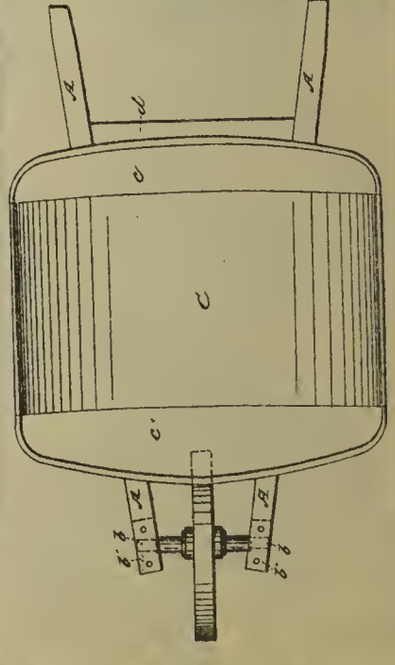
108,339. J. DUNN. LAMP.



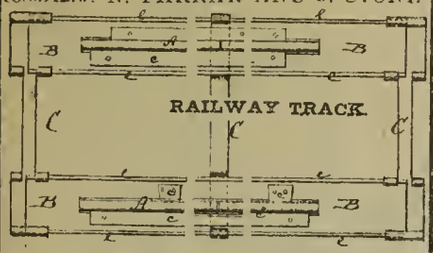
108,340. A. ECKERT. MECHANICAL MOVEMENT.



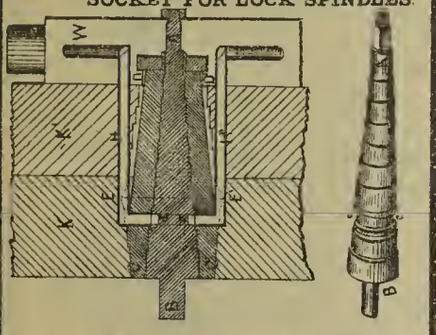
108,341. J. ENNIS. WHEELBARROW



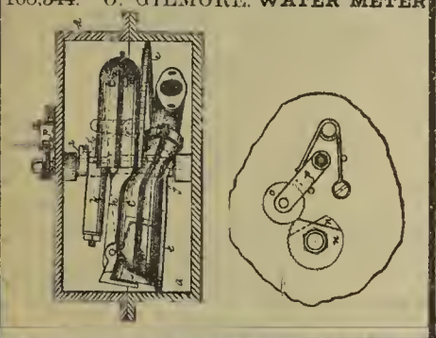
108,342. J. N. FARRAR AND J. STONE
RAILWAY TRACK.



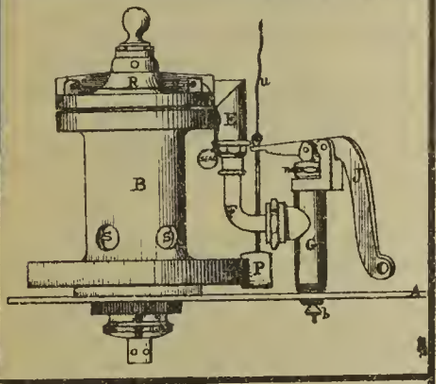
108,343. O. GALLAGHER.
SOCKET FOR LOCK SPINDLES.



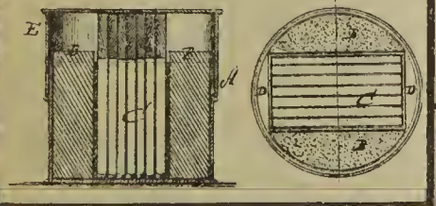
108,344. O. GILMORE. WATER METER



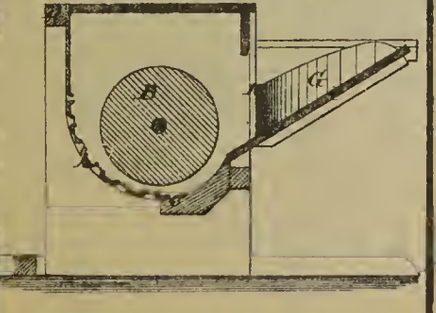
108,345. H. A. GOLL SAFETY VALVE.



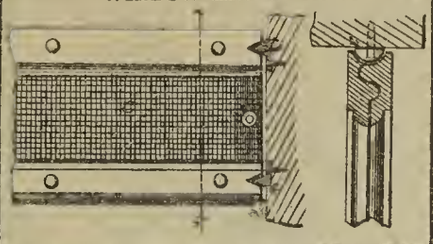
C. GOLDTHWAIT MATCH SAFE.



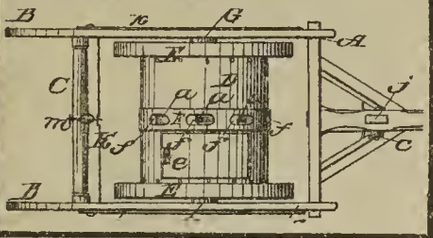
108,347. J. H. GOLLADAY
CLOVER HULLING ATTACHMENT TO THRASHING MACHINES.



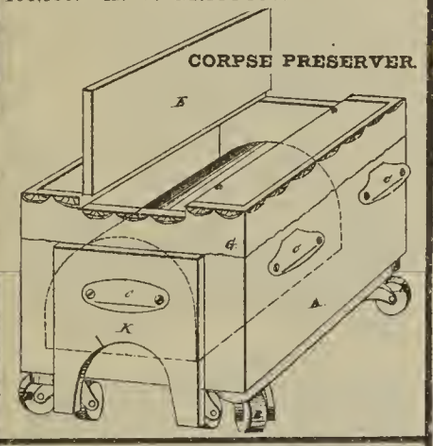
108,348. D. GOODWILLIE.
WINDOW AND DOOR SCREEN.



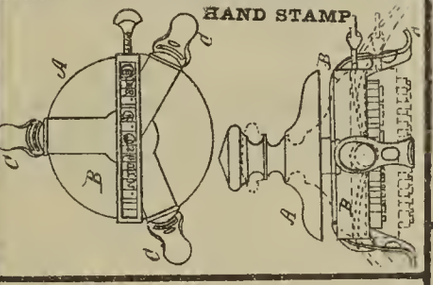
108,349. J. T. GRAVES. COTTON SEED AND GUANO DISTRIBUTER



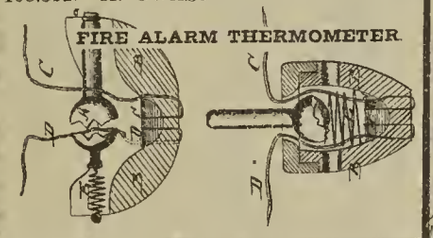
108,350. H. V. GRIFFITH
CORPSE PRESERVER.



108,351. H. H. H. GROSSKOPF.
HAND STAMP.

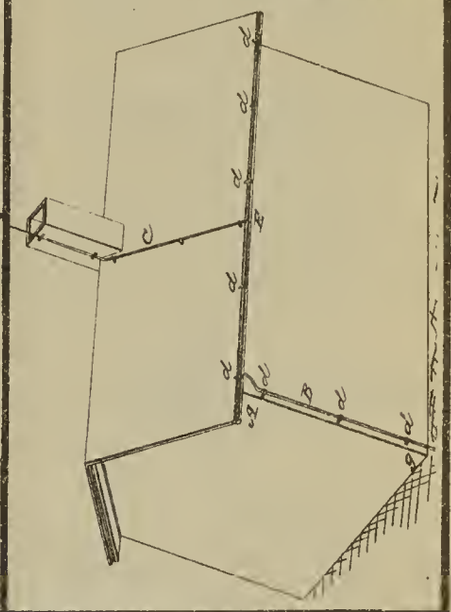


108,352. A. GUEST
FIRE ALARM THERMOMETER.

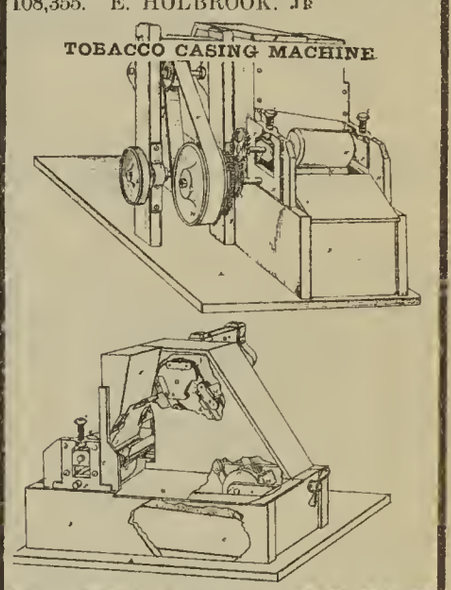


108,353. A. GUILD AND W. H. PIERCE
SELF RELEASING DAVIT RING.

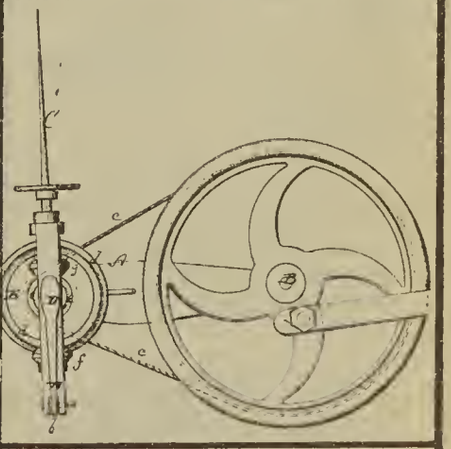
108,354. J. W. HANKENSON AND W. BAKER COMBINED EAVES TROUGH AND LIGHTNING ROD.



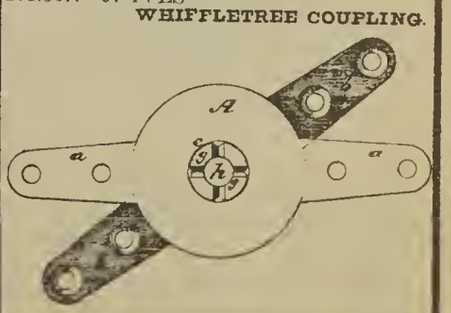
108,355. E. HOLBROOK. JR
TOBACCO CASING MACHINE.



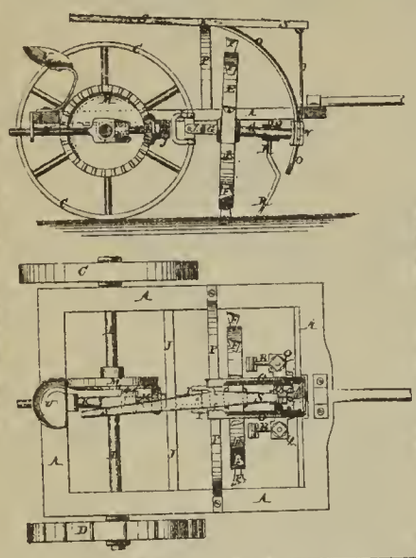
108,356. W. D. HUSE SPINNING MACHINE.



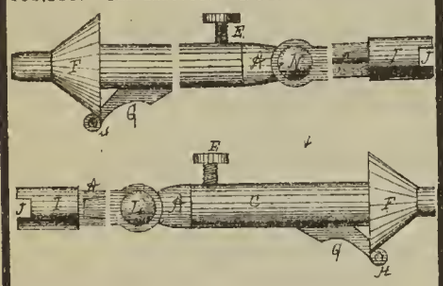
108,357. J. IVES
WHIFFLETREE COUPLING.



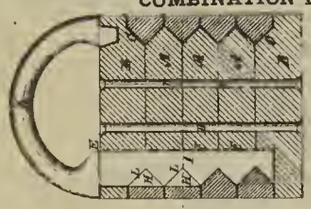
108,358. S. A. JEFFERSON SELF ADJUSTING ROTARY COTTON CHOPPER



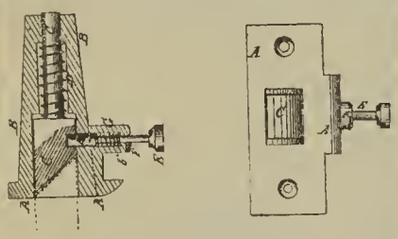
108,359. H. KAHN. GUN CHARGER



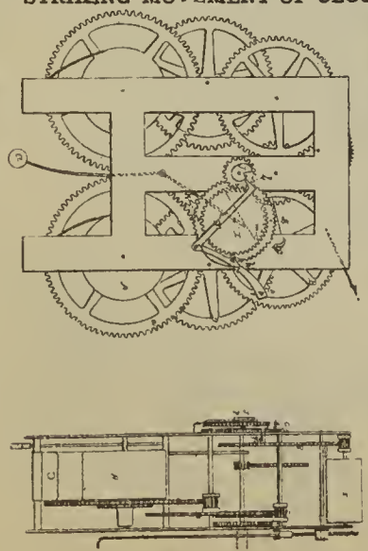
108,360. F. B. KALKBRENNER. COMBINATION LOCK.



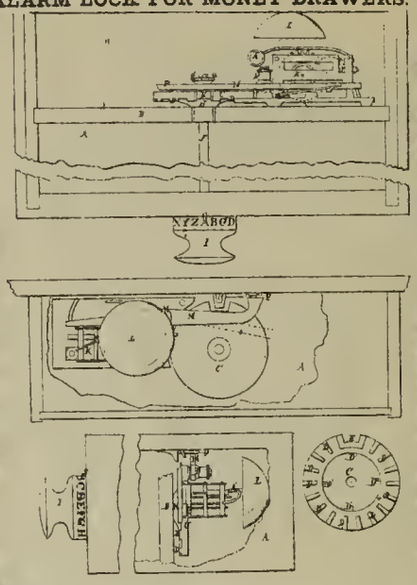
108,361. E. H. KENT. GUARD BOLT FOR LATCHES.



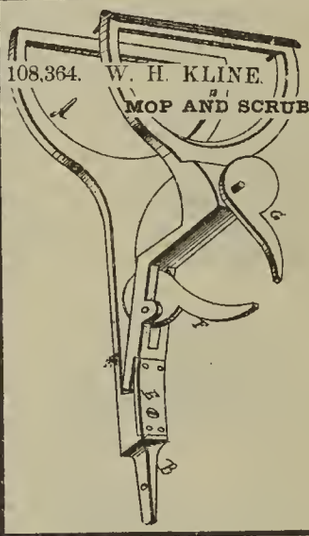
108,362. F. KIENAST. STRIKING MOVEMENT OF CLOCKS.



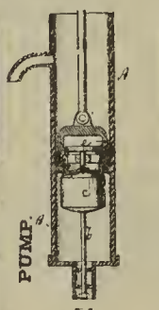
108,363. G. KIMBALL ALARM LOCK FOR MONEY DRAWERS.



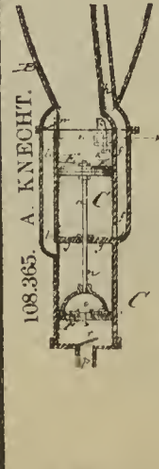
108,364. W. H. KLINE. MOP AND SCRUBBER HEAD.



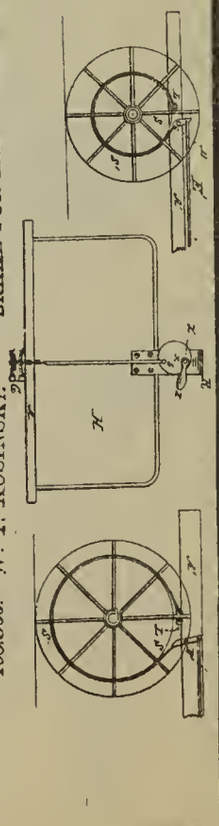
PUMP.



108,365. A. KNECHT.

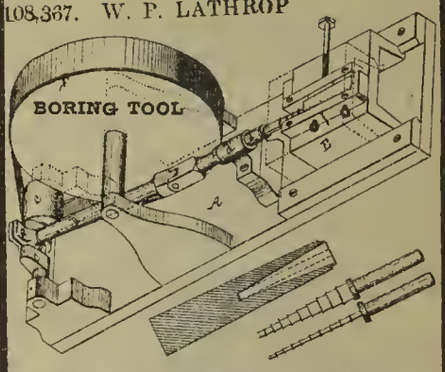


BRAKE FOR LAND CONVEYANCES.

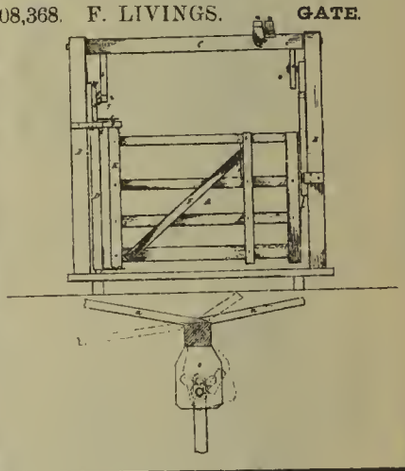


108,366. W. T. KOSINSKI.

108,367. W. P. LATHROP BORING TOOL

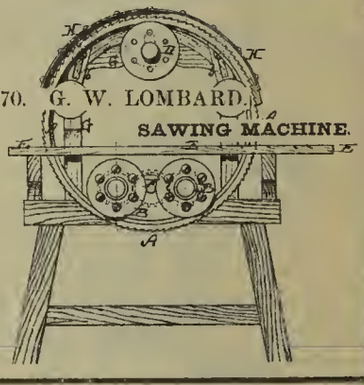


108,368. F. LIVINGS. GATE.



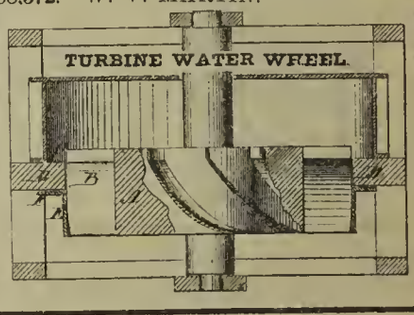
108,369. J. M. LOWENSTEIN. FERTILIZING COMPOUND.

108,370. G. W. LOMBARD. SAWING MACHINE.



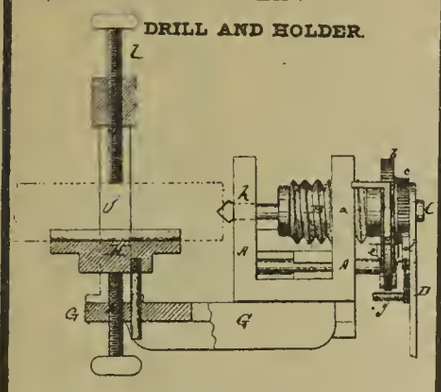
108,371 J. D. LOVE. MEDICAL COMPOUND OR LINIMENT.

108,372. W. V. MARTIN. TURBINE WATER WHEEL.

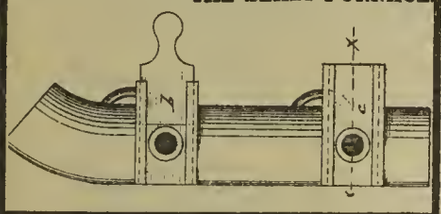


108,373. A. S. MAXWELL. BAKER'S TABLE.

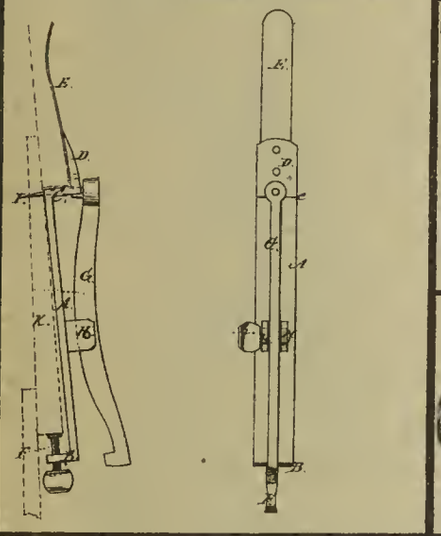
108,374. I. McLAUGHLIN.
DRILL AND HOLDER.



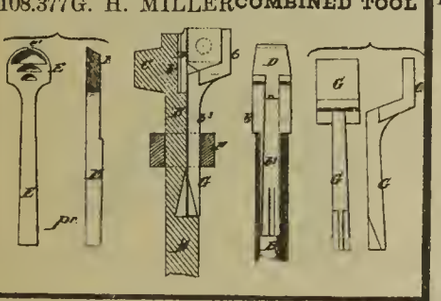
108,375. J. W. MIDDLETON.
PRODUCING CASTINGS DIRECT FROM THE BLAST FURNACE.



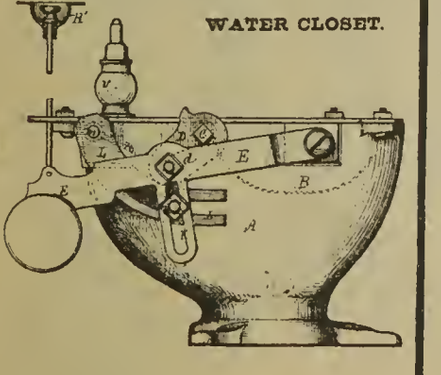
108,376. J. M. MILHOLLIN
WEATHER BOARD GAGE.



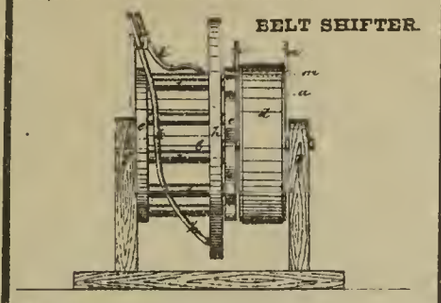
108,377 G. H. MILLER COMBINED TOOL



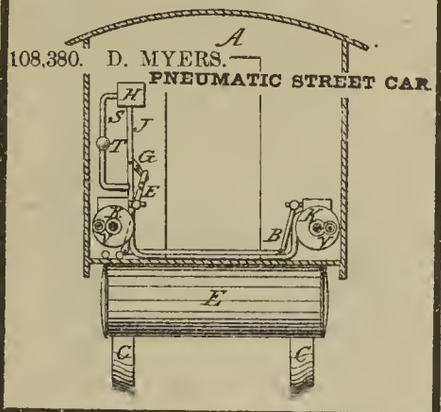
108,378
D. MORRISON AND J. D. SMITH
WATER CLOSET.



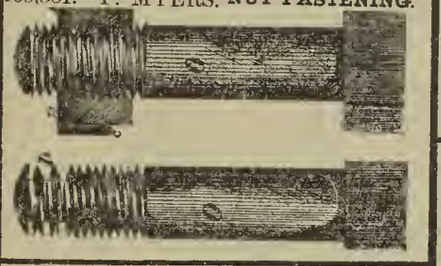
108,379. J. E. MUTCHLER.
BELT SHIFTER.



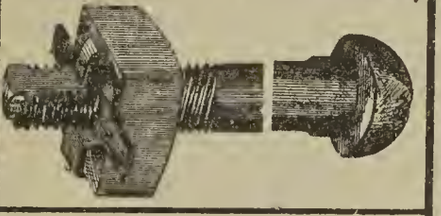
108,380. D. MYERS.
PNEUMATIC STREET CAR.



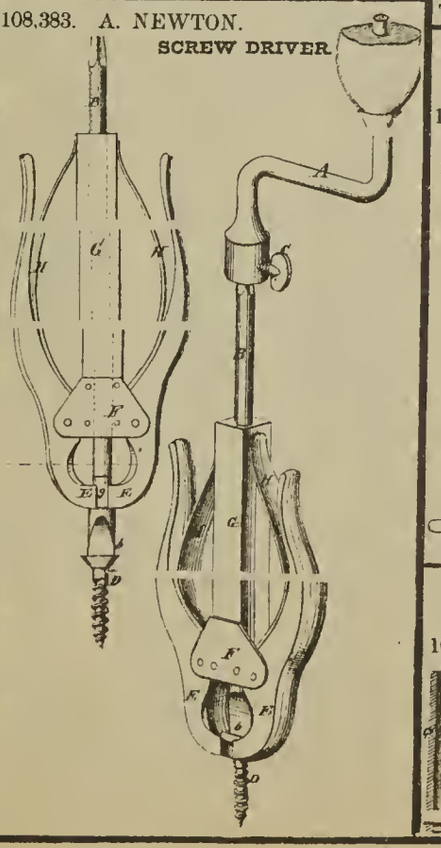
108,381. F. MYERS. NUT FASTENING.



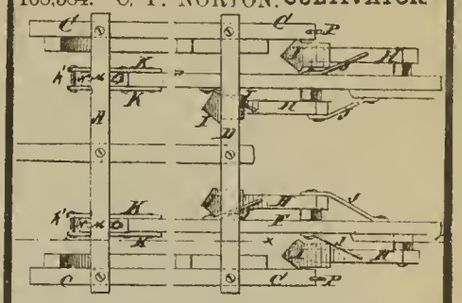
108,382. F. MYERS. NUT FASTENING.



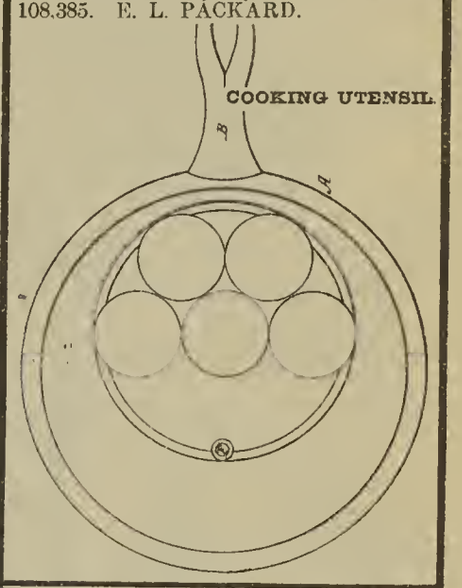
108,383. A. NEWTON.
SCREW DRIVER.



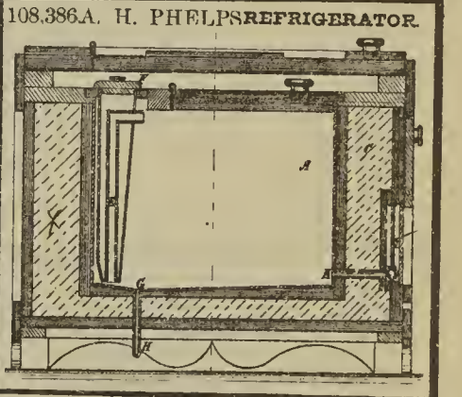
108,384. C. P. NORTON. CULTIVATOR.



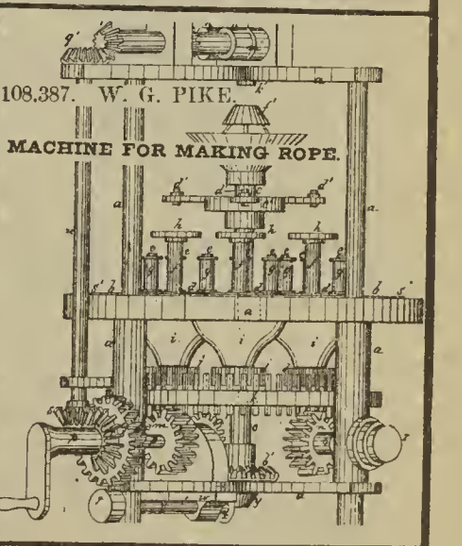
108,385. E. L. PACKARD.
COOKING UTENSIL.



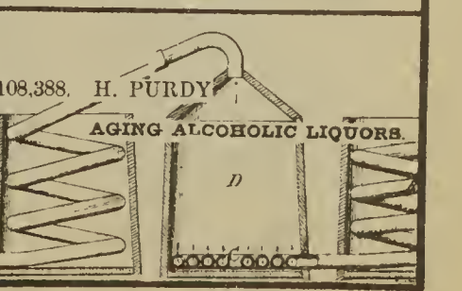
108,386A. H. PHELPS REFRIGERATOR.



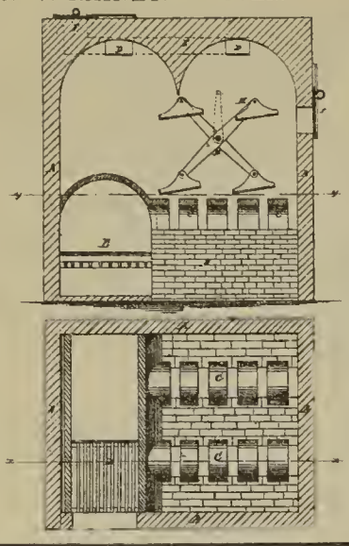
108,387. W. G. PIKE.
MACHINE FOR MAKING ROPE.



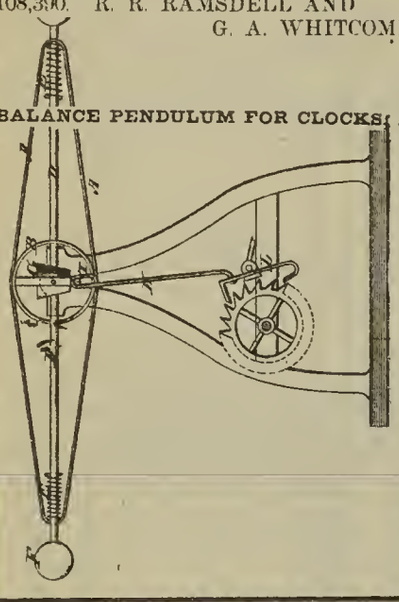
108,388. H. PURDY.
AGING ALCOHOLIC LIQUORS.



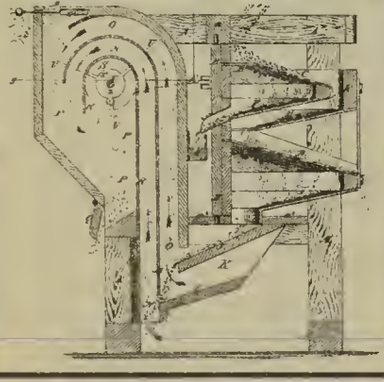
108,389. J. RAINEY. OVEN.



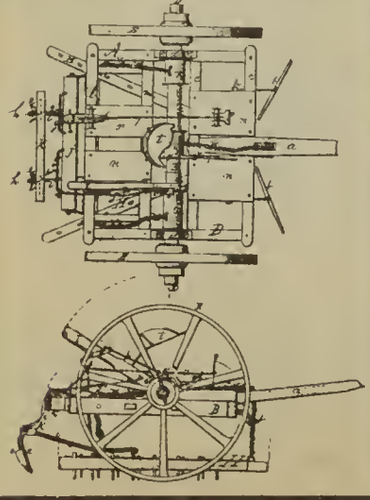
108,390. R. R. RAMSDELL AND G. A. WHITCOMB. BALANCE PENDULUM FOR CLOCKS.



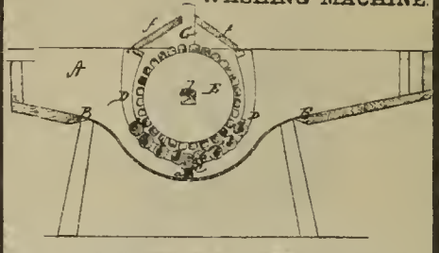
108,391 W. M. REDD GRAIN SEPARATOR.



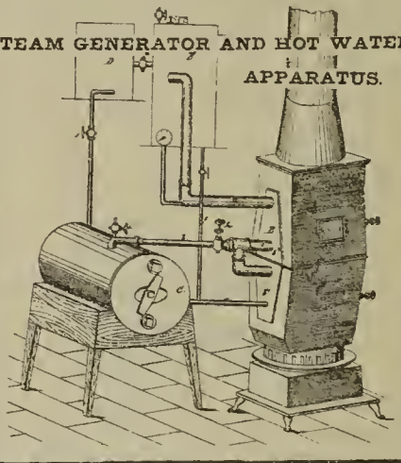
108,392. T. M. REED. CULTIVATOR.



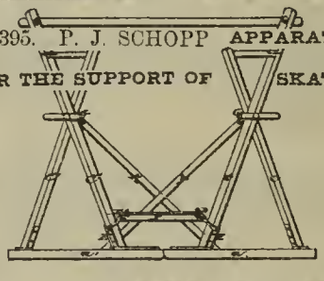
108,393. C. W. REEDER WASHING MACHINE.



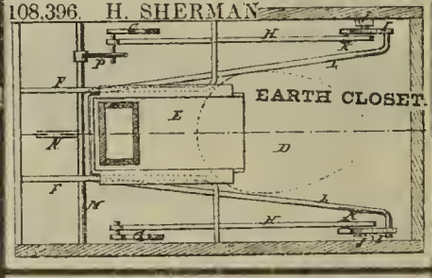
108,394. J. RIGBY AND P. A. PALMER. STEAM GENERATOR AND HOT WATER APPARATUS.



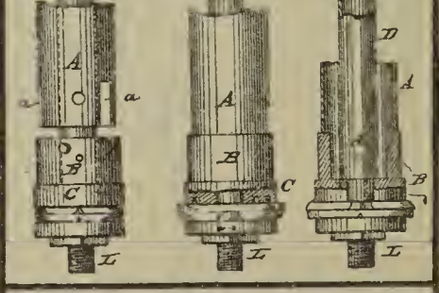
108,395. P. J. SCHOPP APPARATUS FOR THE SUPPORT OF SKATERS.



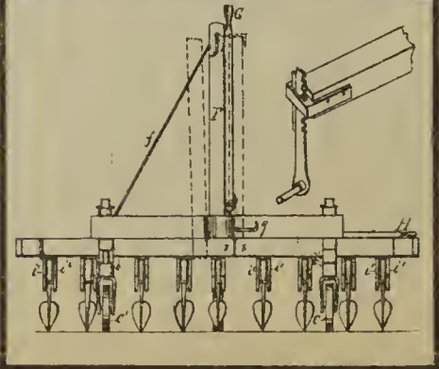
108,396. H. SHERMAN. EARTH CLOSET.



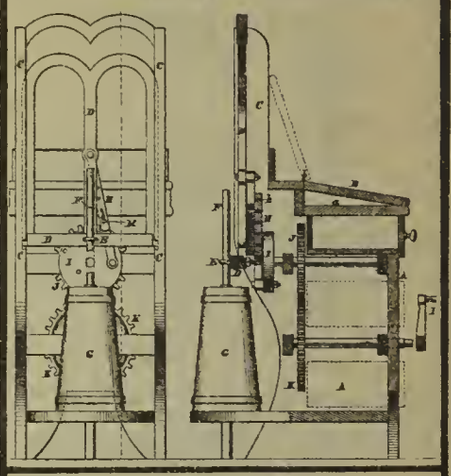
108,397. J. SHOEMAKER. TAMPING DEVICE FOR BLASTING PURPOSES.



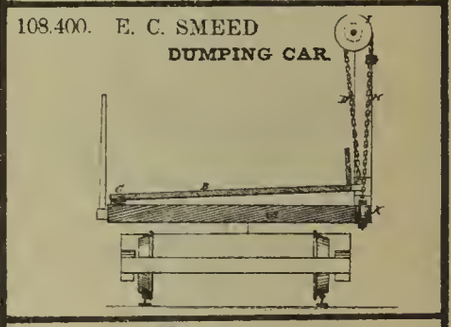
108,398. H. M. SKINNER CULTIVATOR.



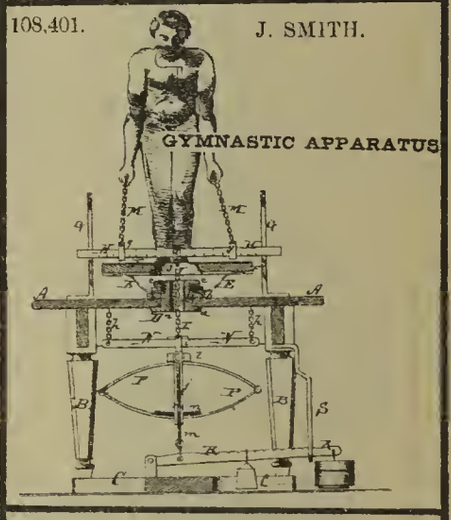
108,399. J. J. SLATER. DESK, BUREAU, AND CHURN POWER.



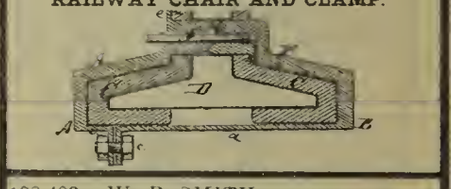
108,400. E. C. SMEED DUMPING CAR.



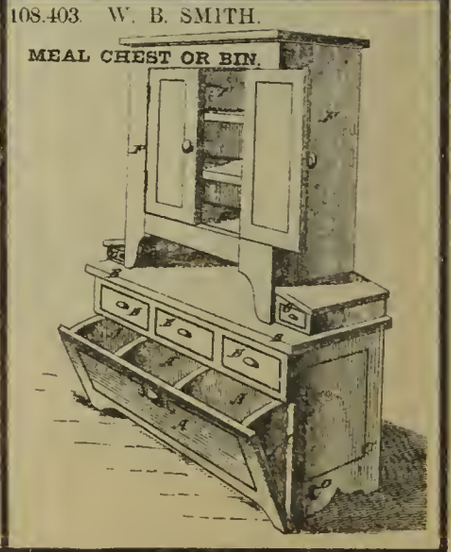
108,401. J. SMITH. GYMNASTIC APPARATUS.



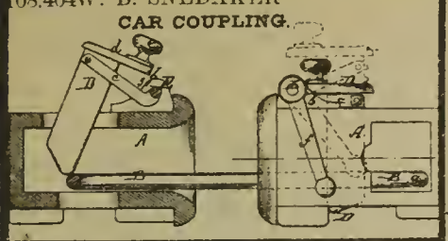
108,402. L. J. SMITH RAILWAY CHAIR AND CLAMP.



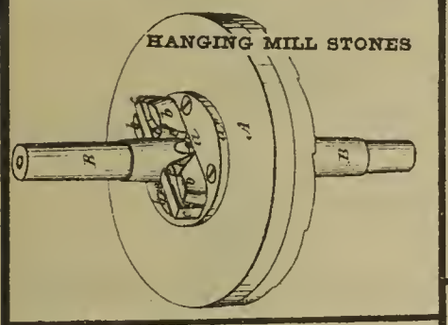
108,403. W. B. SMITH. MEAL CHEST OR BIN.



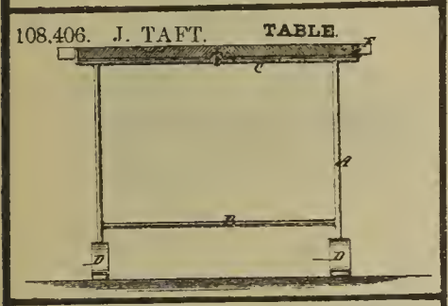
108,404 W. B. SNEDAKER
CAR COUPLING.



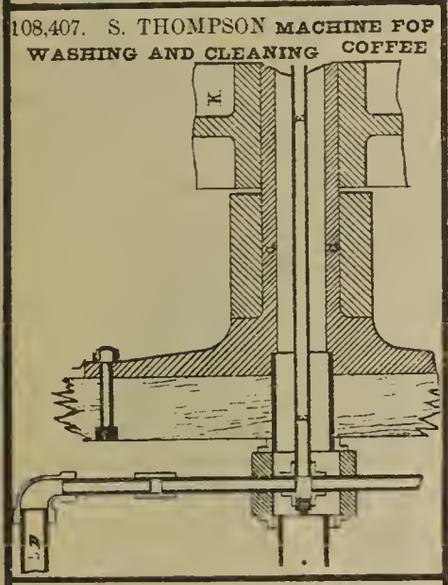
108,405. H. P. STRAUB.
HANGING MILL STONES



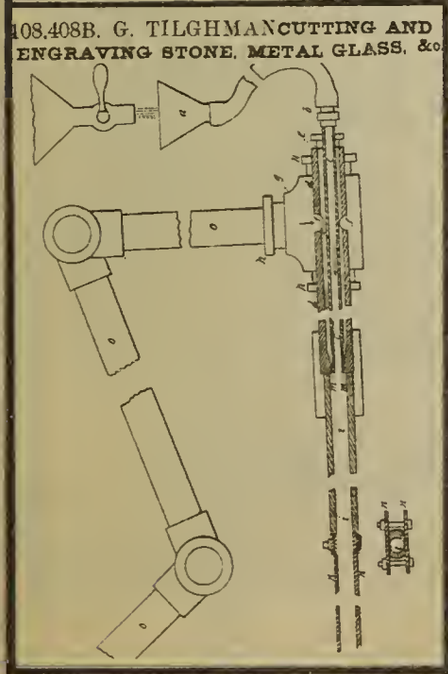
108,406. J. TAFT. TABLE.



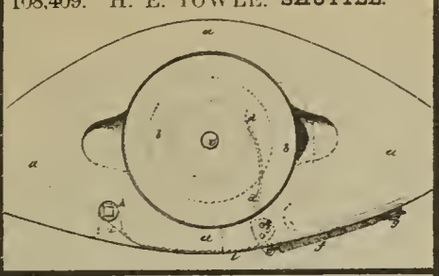
108,407. S. THOMPSON MACHINE FOR WASHING AND CLEANING COFFEE



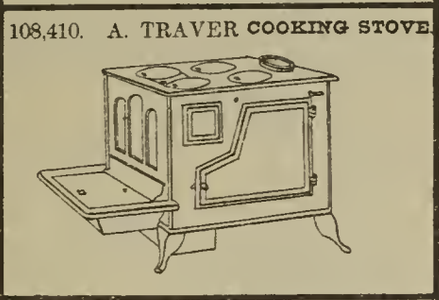
108,408 B. G. TILGHMAN CUTTING AND ENGRAVING STONE, METAL GLASS, &c.



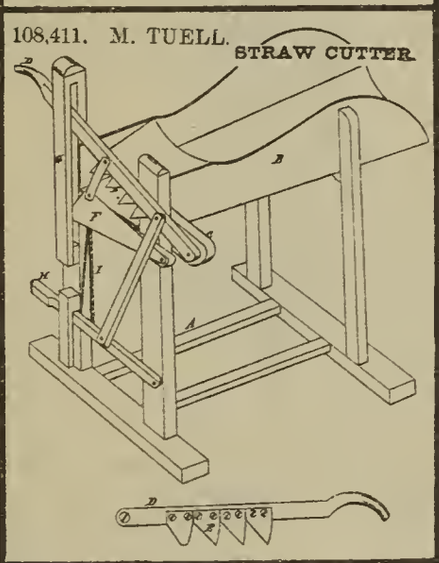
108,409. H. E. TOWLE. SHUTTLE.



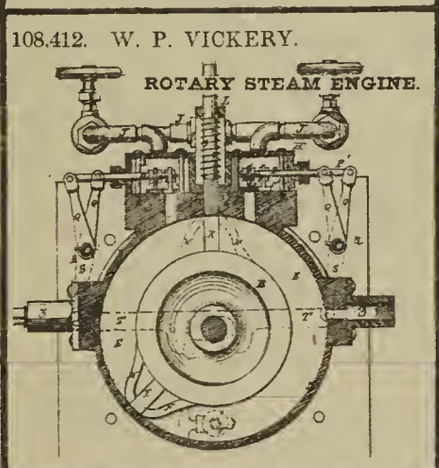
108,410. A. TRAVER COOKING STOVE.



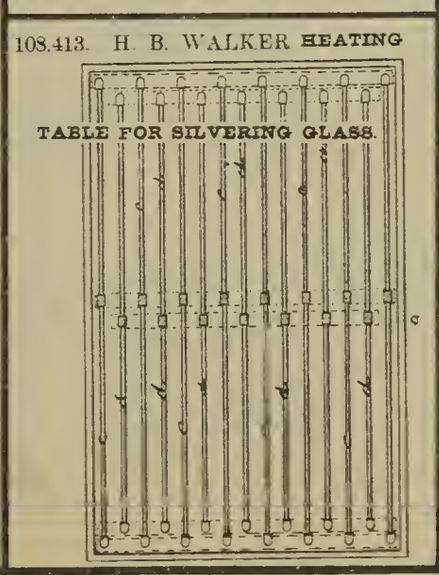
108,411. M. TUELL. STRAW CUTTER.



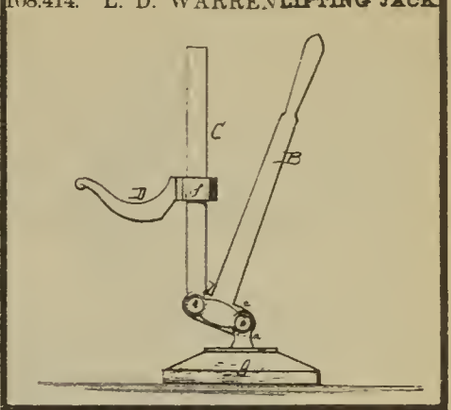
108,412. W. P. VICKERY.
ROTARY STEAM ENGINE.



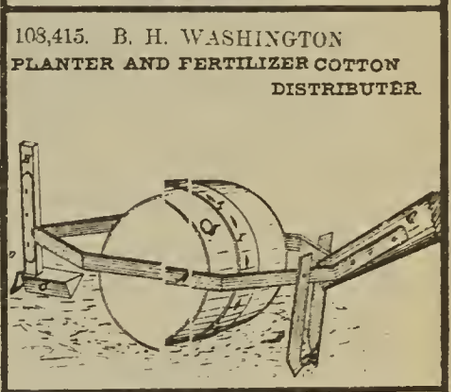
108,413. H. B. WALKER HEATING
TABLE FOR SILVERING GLASS.



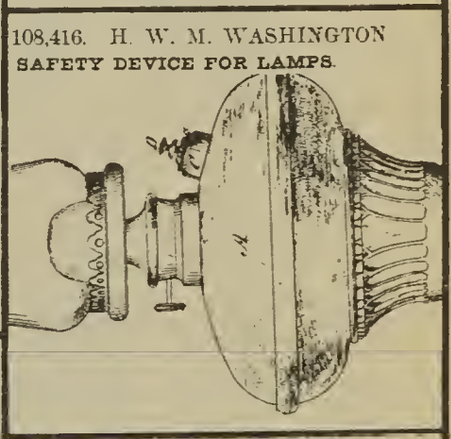
108,414. L. D. WARREN LIFTING JACK.



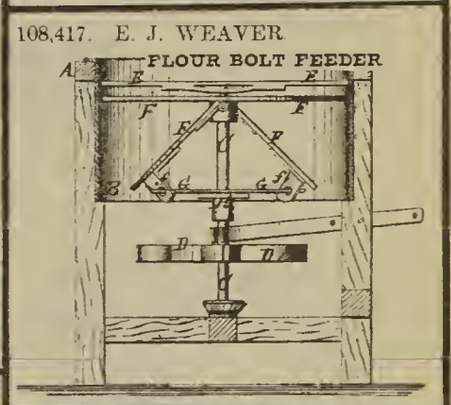
108,415. B. H. WASHINGTON
PLANTER AND FERTILIZER COTTON DISTRIBUTER.



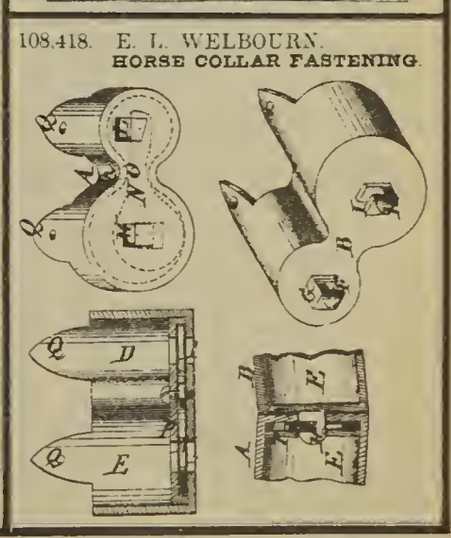
108,416. H. W. M. WASHINGTON
SAFETY DEVICE FOR LAMPS.



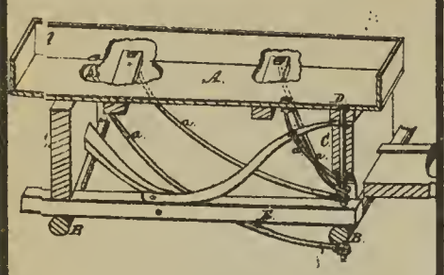
108,417. E. J. WEAVER.
FLOUR BOLT FEEDER



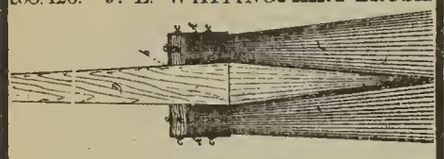
108,418. E. L. WELBOURN.
HORSE COLLAR FASTENING.



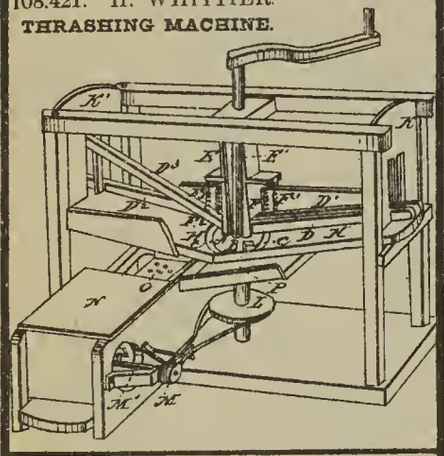
108,419. J. W. WEST. WAGON.



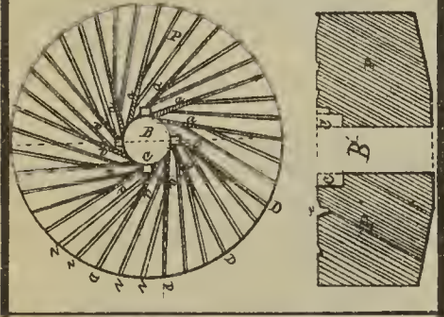
108,420. J. L. WHITING PAINT BRUSH



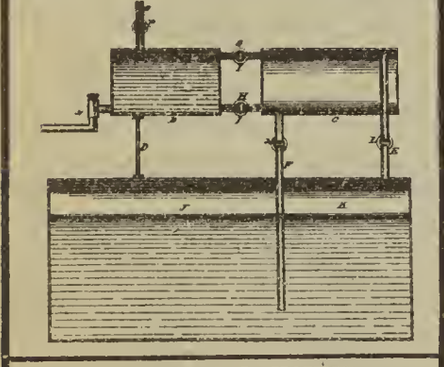
108,421. H. WHITTIER. THRASHING MACHINE.



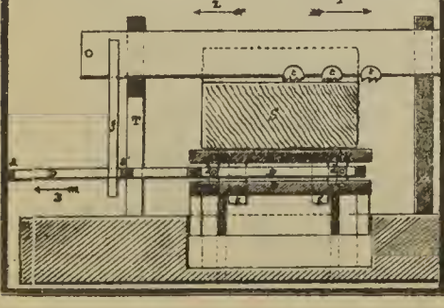
108,422. J. P. H. WOHLENBERG MILLSTONE DRESS.



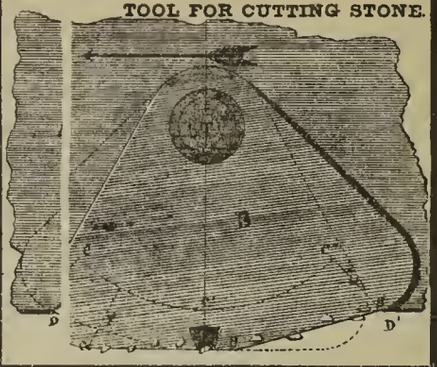
108,423. A. R. YOUNG BOILER FEEDER



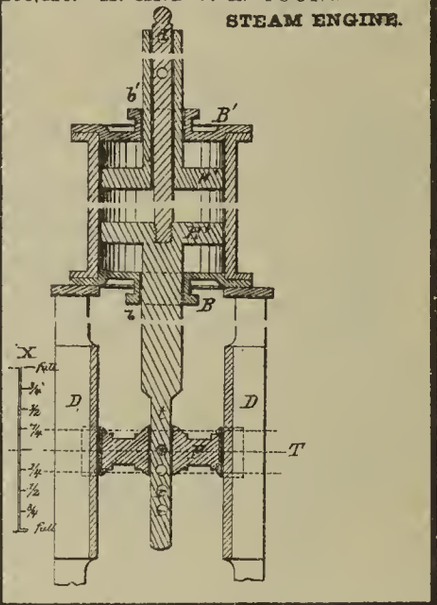
108,424. H. AND J. L. YOUNG. STONE CUTTING MACHINE.



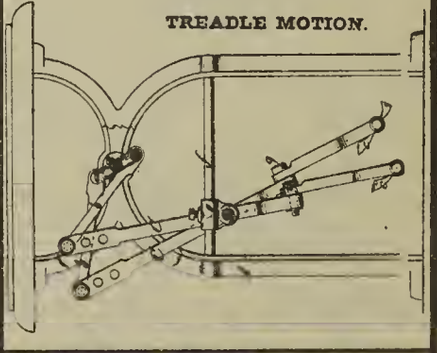
108,425. H. AND J. L. YOUNG TOOL FOR CUTTING STONE.



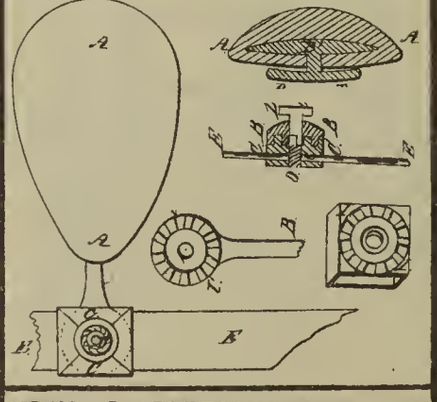
108,426. H. AND J. L. YOUNG STEAM ENGINE.



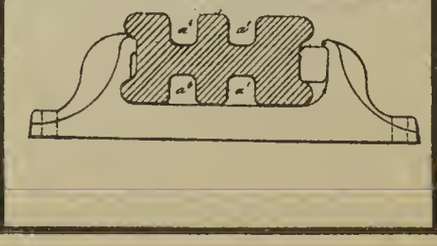
108,427. A. M. ALLEN TREADLE MOTION.



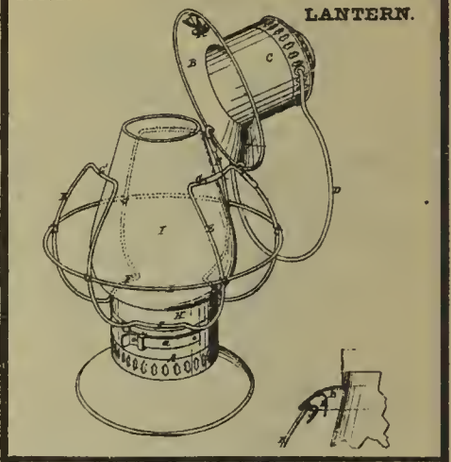
108,428. H. R. ALLEN. TRUSS.



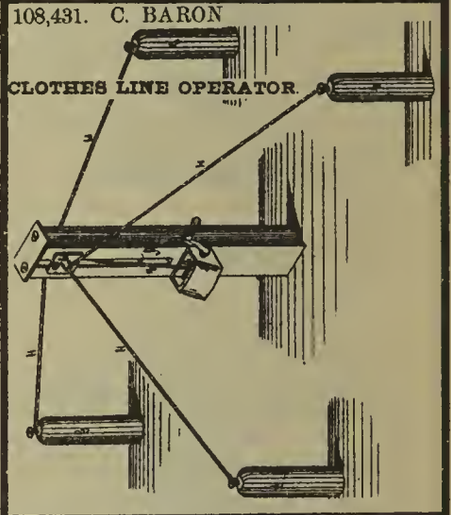
108,429. J. ARMSTRONG METHOD OF FORMING BIFURCATED ENDS OF RAILWAY CROSSINGS.



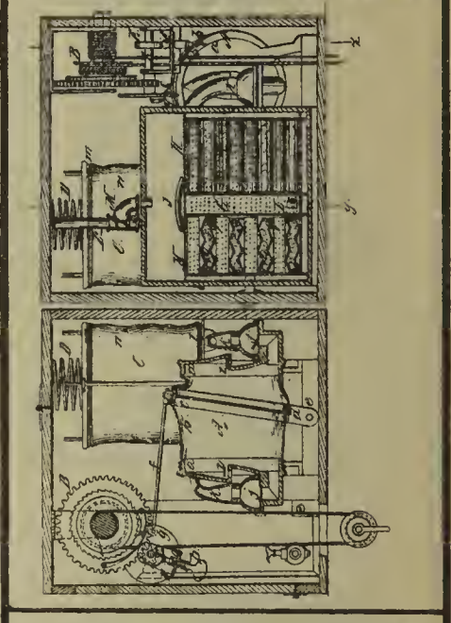
108,430. C. S. S. AND A. L. BARON LANTERN.



108,431. C. BARON CLOTHES LINE OPERATOR.

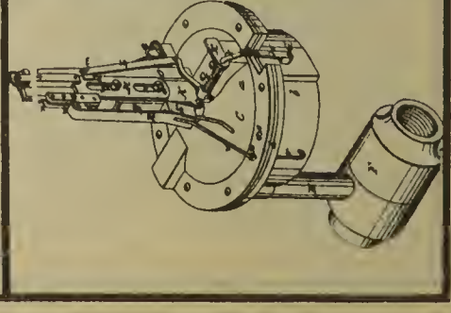


108,432. A. BARTHOLF APPARATUS FOR CARBURETING AIR AND GASES.

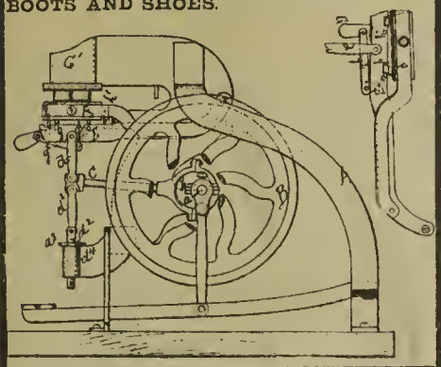


108,433. E. O. BARTLETT TREATING THE ORES OF LEAD AND ZINC FOR THE MANUFACTURE OF PIGMENTS &c.

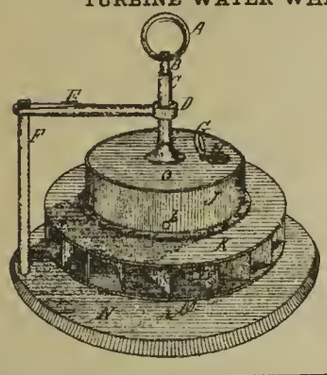
108,434. F. BEAN. APPARATUS FOR LIGHTING AND EXTINGUISHING GAS BY ELECTRICITY.



108,435. J. H. BEAN. MACHINE FOR CUTTING SOLES, &c., FOR BOOTS AND SHOES.

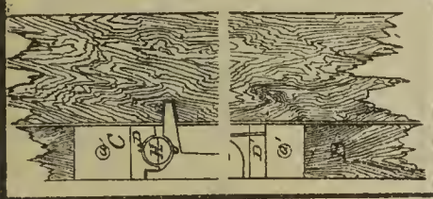


108,436. E. R. BEARDSLEY. TURBINE WATER WHEEL.

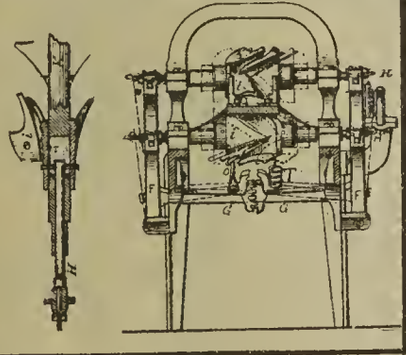


108,437. W. BERRI, Jr. MANUFACTURE OF OIL CLOTH.

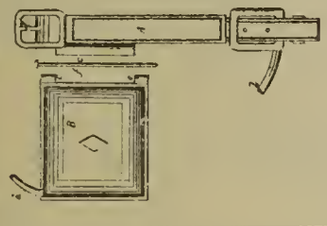
108,438. G. W. BISHOP SASH HOLDER.



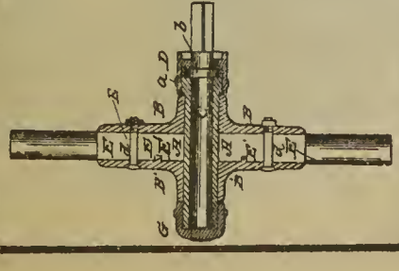
108,439. R. H. AND H. S. BOYNTON MACHINE FOR DRESSING SPOKES.



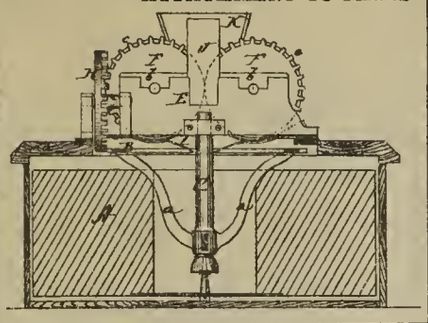
108,440. J. L. BROWN. BLIND FOR HARNESS BRIDLES.



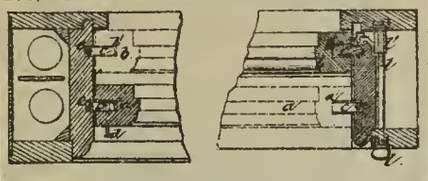
108,441. N. BRYAN. HUB FOR CARRIAGES.



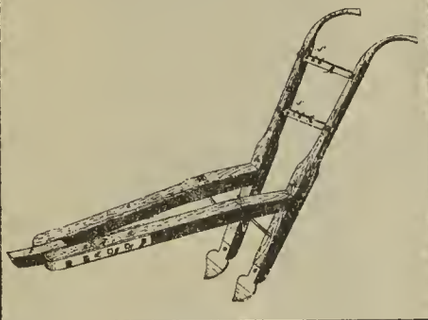
108,442. N. BRYAN. ATTACHMENT TO MILLS



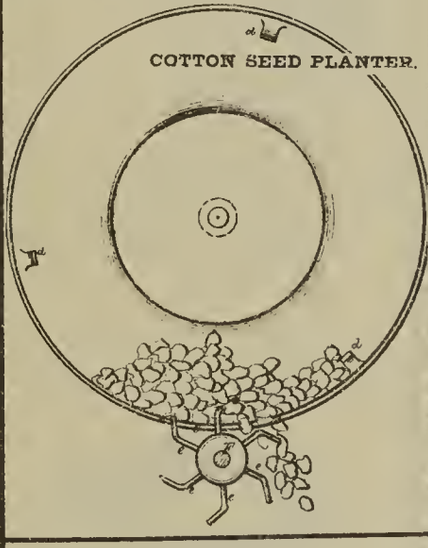
108,443. T. BULLIVANT. WINDOW.



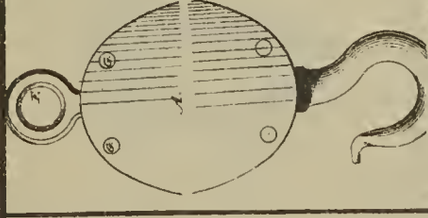
108,444. W. T. BUNN. PLOW.



108,445. M. S. BURNS COTTON SEED PLANTER.

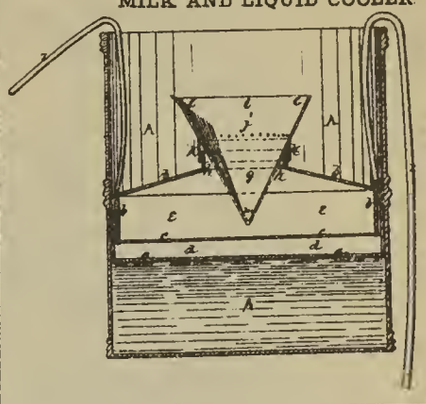


108,446. J. A. BURR HOISTING BLOCK.

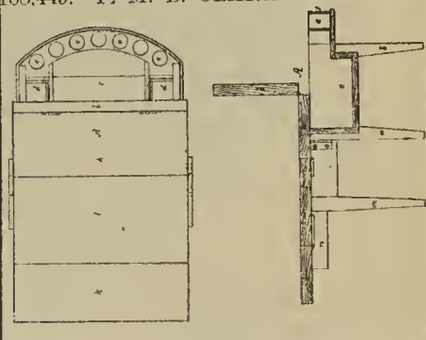


108,447. E. L. BUSHNELL BED BOTTOM.

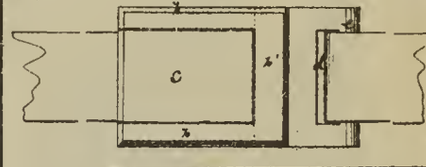
108,448. A. P. BUSSEY MILK AND LIQUID COOLER.



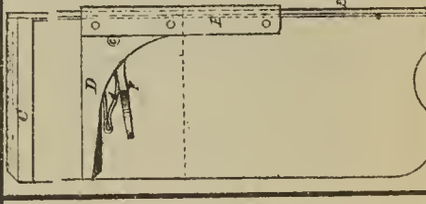
108,449. F. M. B. CLARK WORK TABLE.



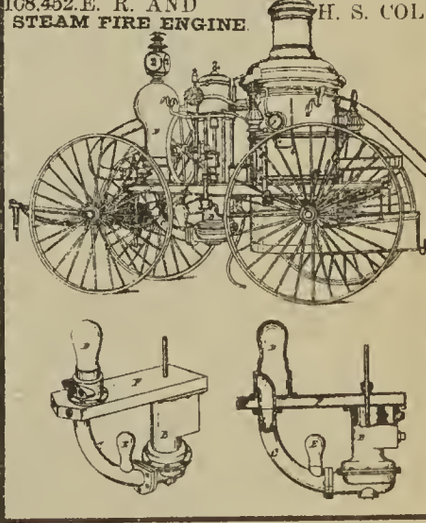
108,450 M. R. CLARK COTTON BALE TIE.



108,451. A. F. CLOUDMAN AND G. W. COFFIN COMPOSING STICK.



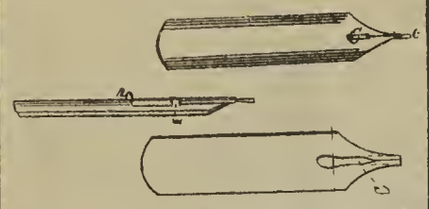
108,452. E. R. AND H. S. COLE STEAM FIRE ENGINE.



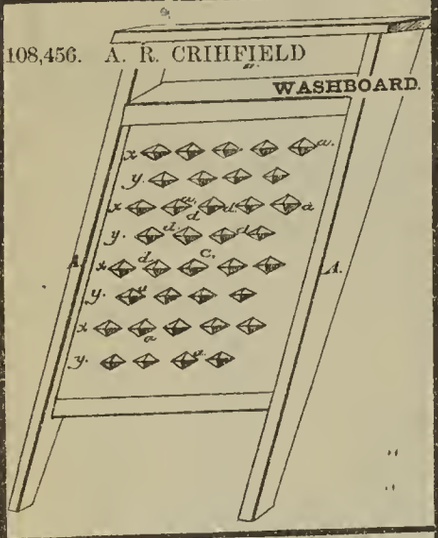
108,453. T. L. COTTEN MEDICAL COMPOUND FOR HOG CHOLERA.

108,454. J. C. COTTINGHAM. BOAT DETACHING APPARATUS.

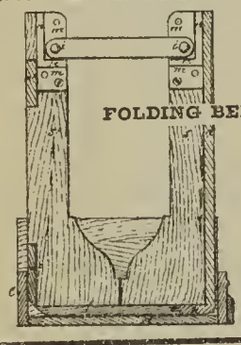
108,455. G. CRANDELL. PEN.



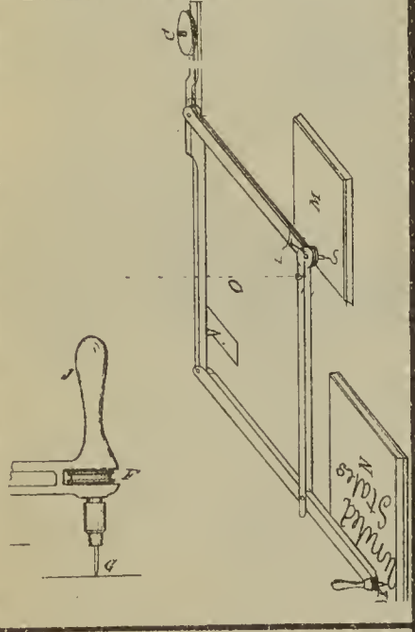
108,456. A. R. CRIHFIELD WASHBOARD.



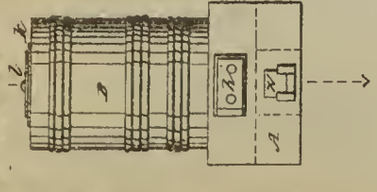
108,457. M. CROSBY. FOLDING BEDSTEAD.



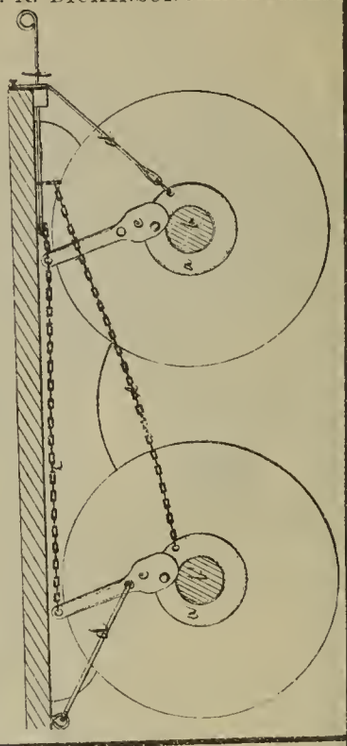
108,458. W. M. DAVIS. MACHINE FOR ORNAMENTING AND LETTERING LOOKING GLASSES, SIGNS &c.



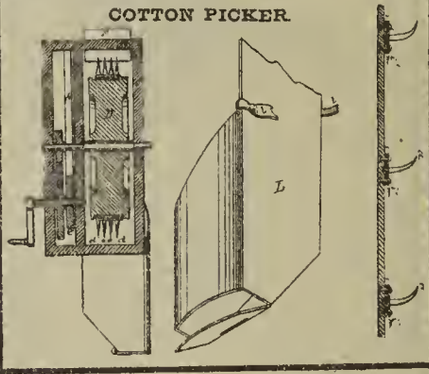
108,459. I. DE HAVEN HEATING STOVE.



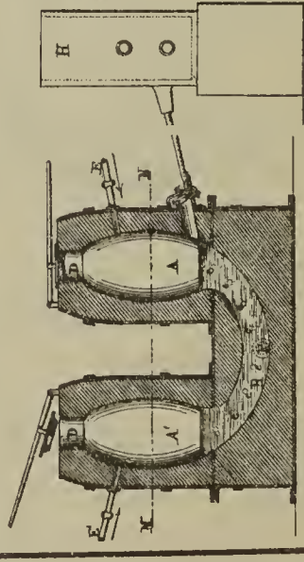
108,460D. A. DICKINSON CAR STARTER.



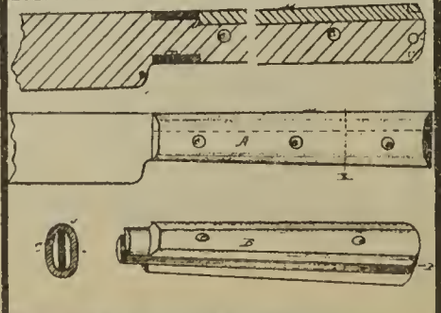
108,461. B. I. DREESON COTTON PICKER.



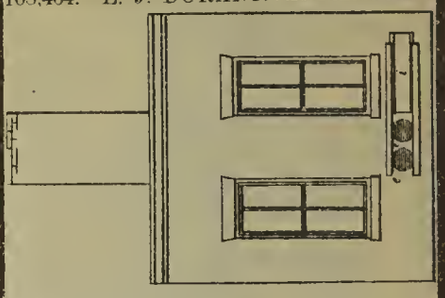
108,462. C. M. T. DU MOTAY. TREATING COPPER PYRITES.



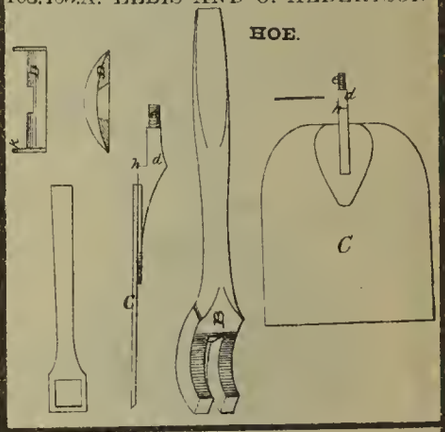
108,463 E. G. DURANT TABLE CUTLERY



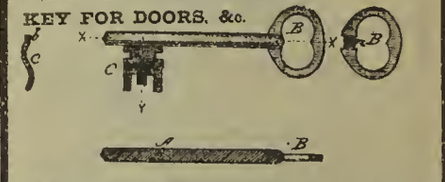
108,464. E. J. DURANT. VENTILATOR.



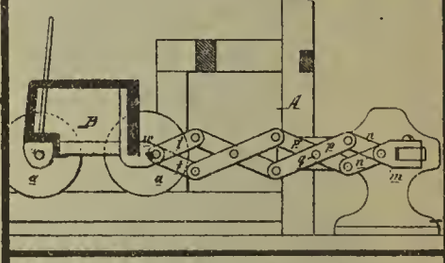
108,465. A. ELLIS AND O. ALBERTSON HOE.



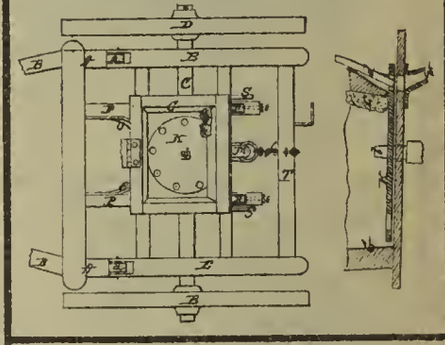
108,466. H. H. ELWELL. KEY FOR DOORS, &c.



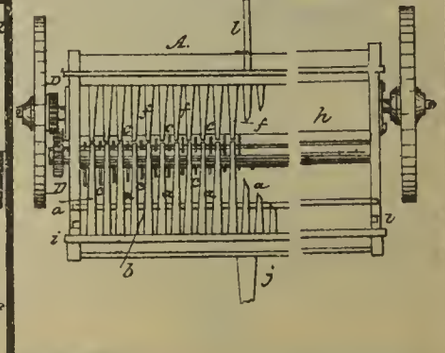
108,467. J. ENTWISTLE. SELF ACTING MULE, &c., FOR SPINNING



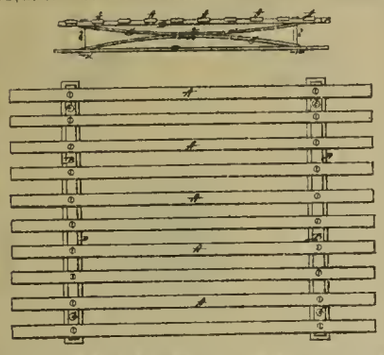
108,468. R. ERDLY. CORN PLANTER



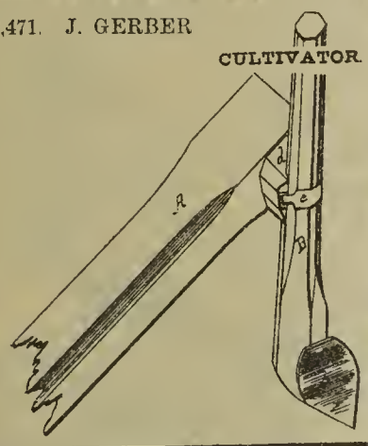
108,469. S. L. FRASER. MANURE DISTRIBUTER AND SEED SOWER



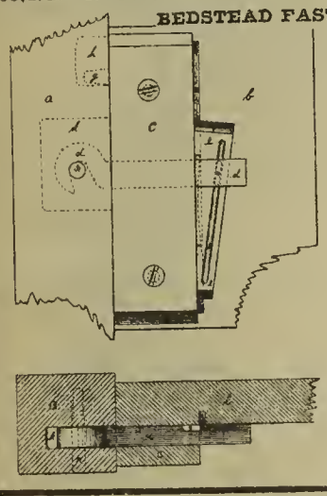
108,470. S. B. FREEMAN BED BOTTOM.



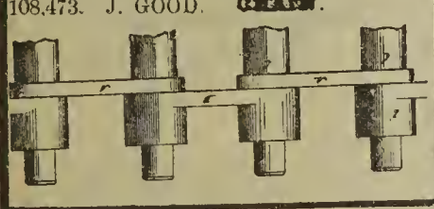
108,471. J. GERBER CULTIVATOR.



108,472. E. F. GILBERT. BEDSTEAD FASTENING.



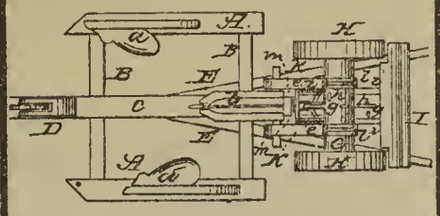
108,473. J. GOOD. CHAIN.



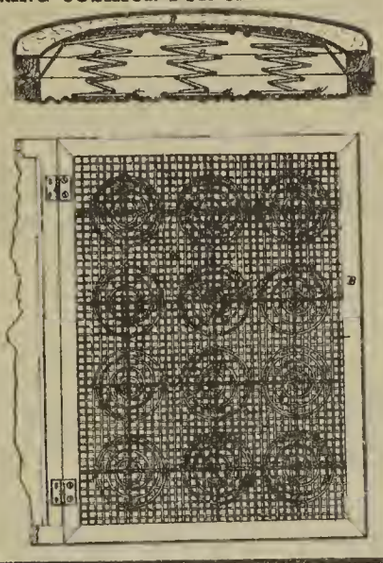
108,474T. F. GRIFFIN AND R. TARR JR. COPPER PAINT FOR SHIPS BOTTOMS &c.

108,475 J. HAMILTON AND G. F. MORSE CHANGEABLE GAGE CAR WHEEL.

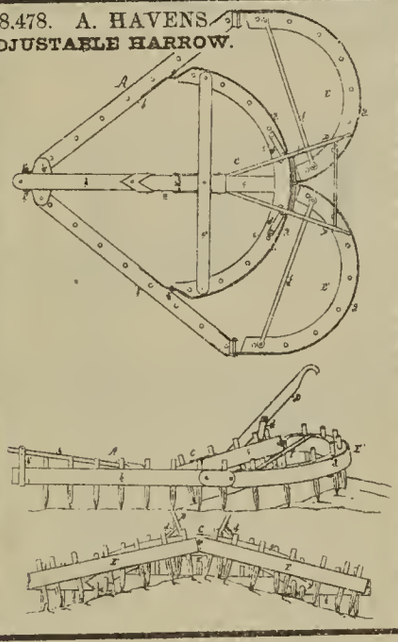
108,476. J. N. HANNON COTTON PLOW AND PLANTER.



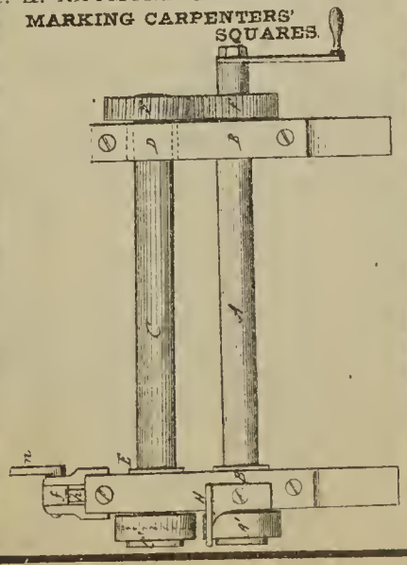
108,477. W. B. HATCH SPRING CUSHION FOR CAR SEATS.



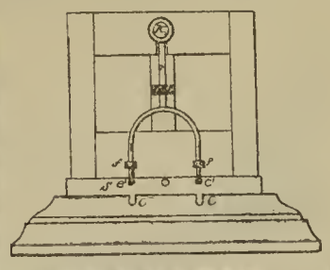
108,478. A. HAVENS. ADJUSTABLE HARROW.



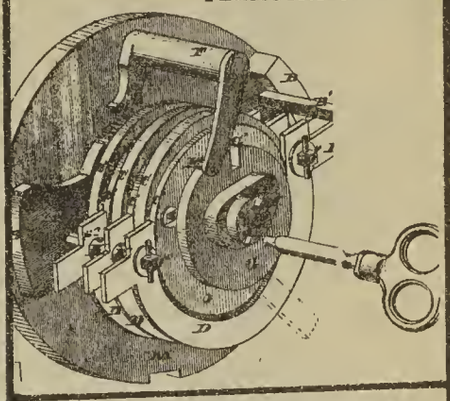
108,479. A. M. HEALY AND C. H. RAYMOND. MACHINE FOR MARKING CARPENTERS' SQUARES.



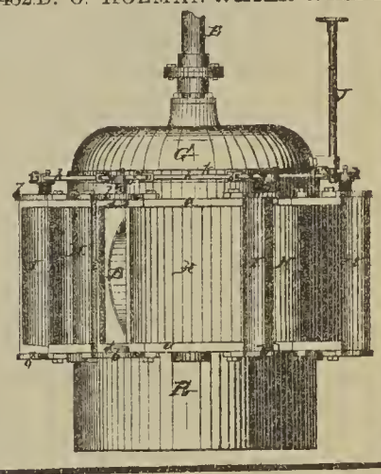
108,480. C. HICKS. WEATHER STRIP.



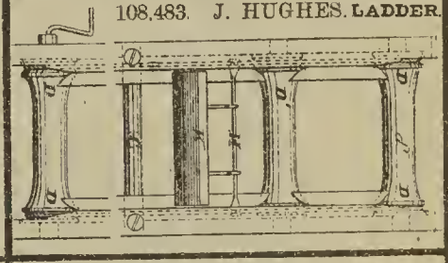
108,481. J. C. HINTZ, JR. PERMUTATION LOCK.



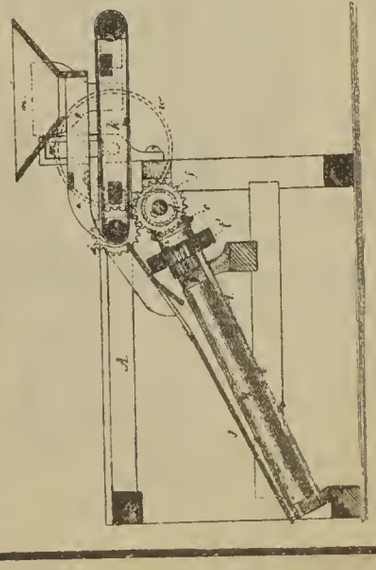
108,482. D. O. HOLMAN WATER WHEEL.



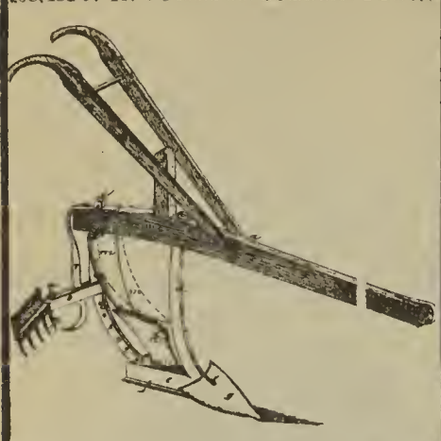
108,483. J. HUGHES. LADDER.



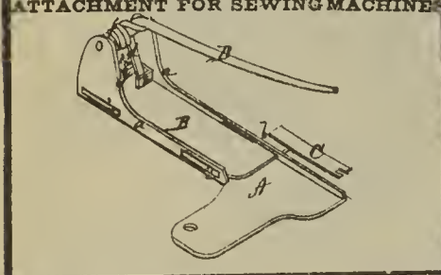
108,484. M. C. JEFFERS CORN HUSKING MACHINE.



108,485 J. H. JOHNSON SUBSOIL PLOW.

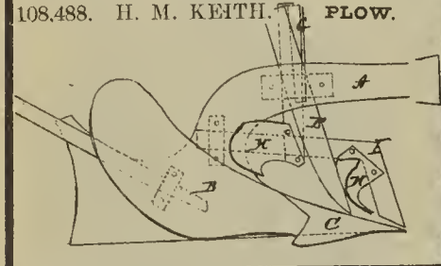


108,486. A. JOHNSTON. RUFFLING ATTACHMENT FOR SEWING MACHINE.

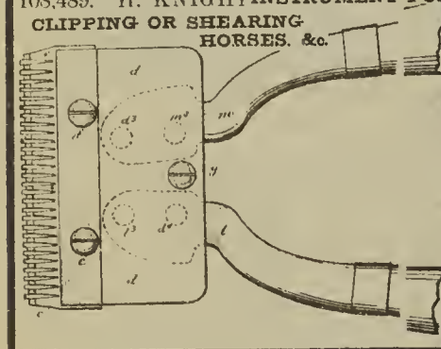


108,487. M. L. KEEN. MANUFACTURE OF PAPER STOCK.

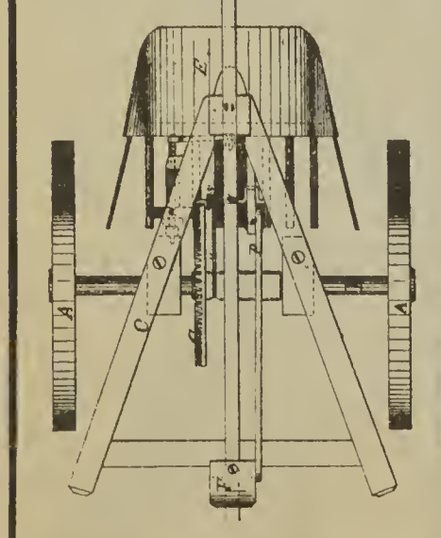
108,488. H. M. KEITH. PLOW.



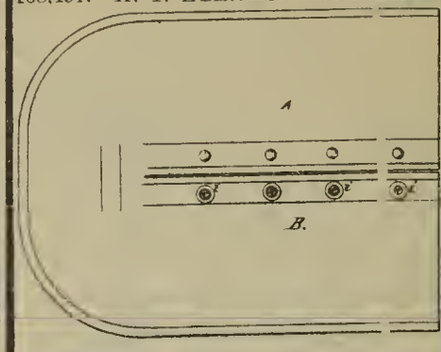
108,489. H. KNIGHT INSTRUMENT FOR CLIPPING OR SHEARING HORSES. &c.



108,490. M. W. KNOX POTATO DIGGER.

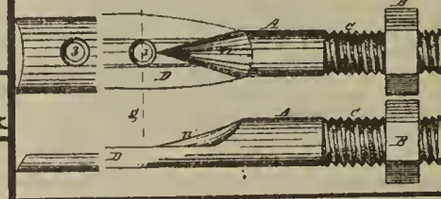


108,491. H. T. LEE. SHOE FASTENING.

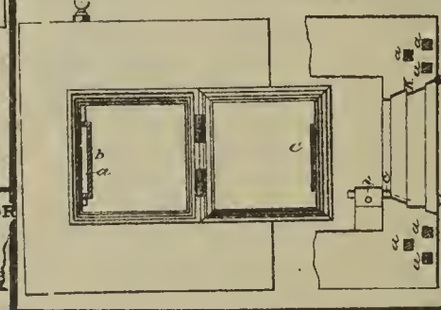


108,492. A. M. LESLIE. RUFFLER FOR SEWING MACHINES.

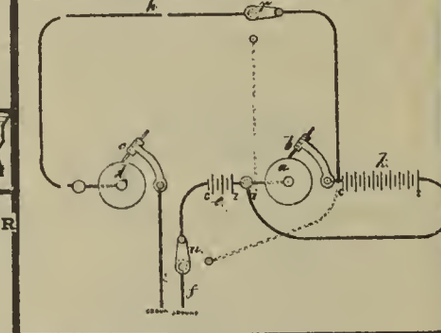
108,493. W. J. LEWIS AND H. W. OLIVER, JR. STRAP BOLT FOR WAGON BEDS.



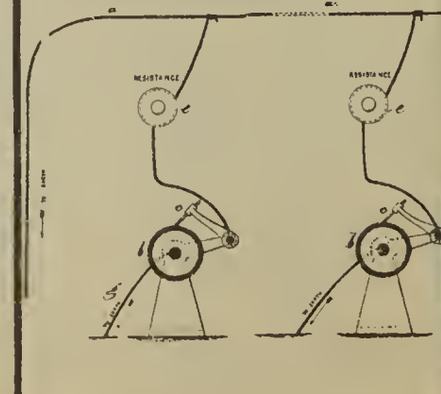
108,494. L. LILLIE. IRON SAFE.



108,495. G. LITTLE. ARRANGEMENT OF ELECTRICAL CIRCUITS FOR AUTOMATIC TRANSMITTING INSTRUMENTS.



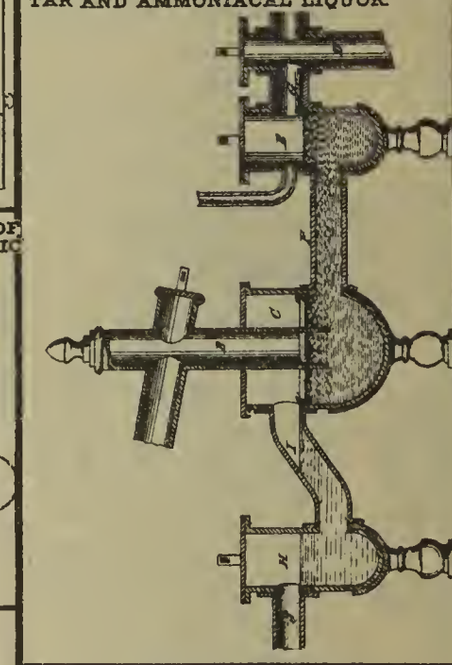
108,496. G. LITTLE. CHEMICAL TELEGRAPH.



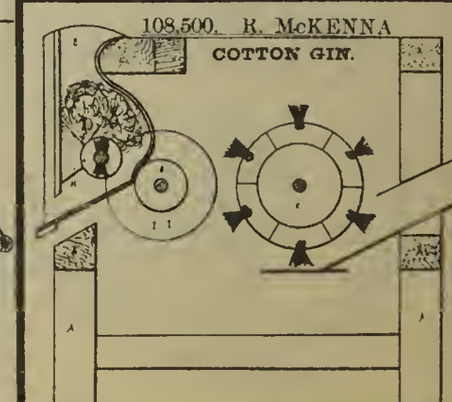
108,497B. K. MALTBY WALL PROTECTOR.

108,498. H. S. MALTBY. EGG AND CAKE BEATER.

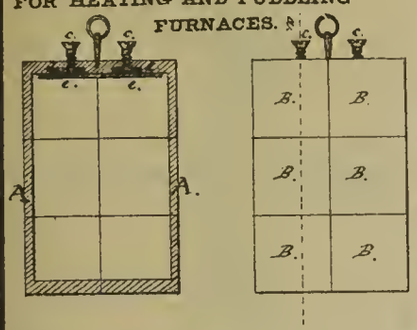
108,499. E. D. McCRACKEN. APPARATUS FOR SEPARATING GAS TAR AND AMMONIACAL LIQUOR.



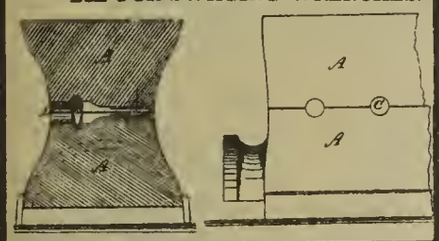
108,500. R. McKENNA. COTTON GIN.



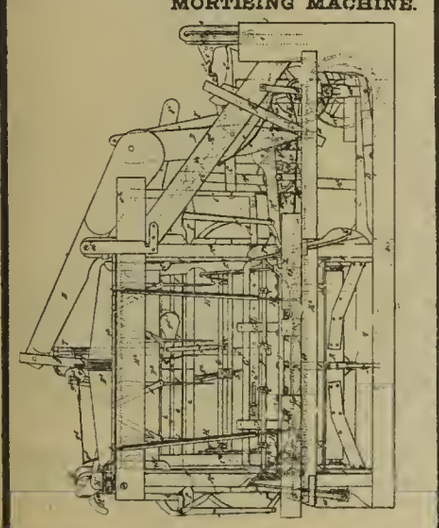
108,501. S. McLAUGHLIN SLIDE DOOR FOR HEATING AND PUDDLING FURNACES.



108,502. T. MEIKLE. DIE FOR SWAGING WRENCHES.

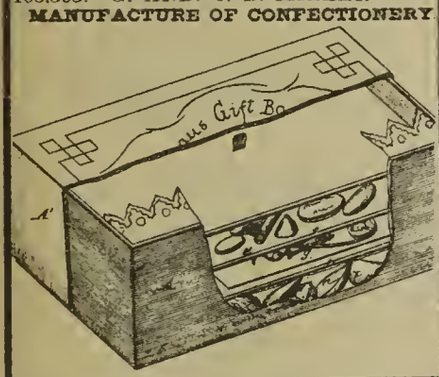


108,503. L. G. MERRILL. MORTISING MACHINE.

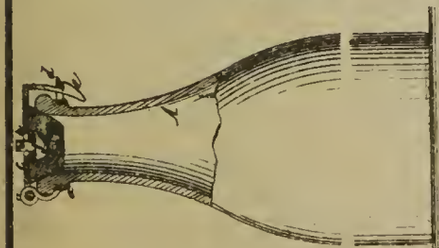


108,504. E. MILLER. MEDICINE.

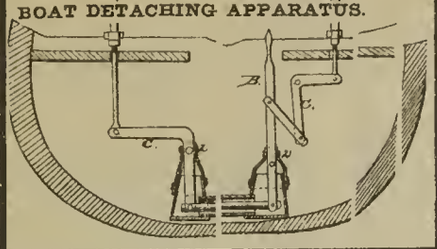
108,505. G. AND. C. B. MILLER MANUFACTURE OF CONFECTIONERY.



108,506. W. MORGENSTERN BOTTLE STOPPER.

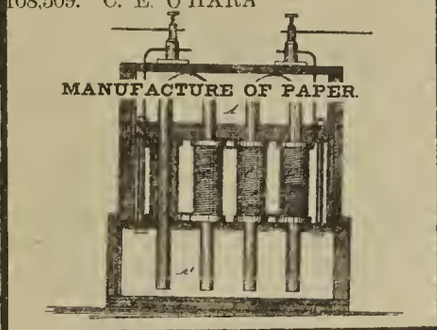


108,507. M. V. NOBLES. BOAT DETACHING APPARATUS.

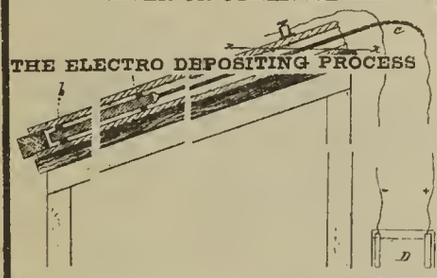


108,508. W. W. OGLESBY MEDICAL COMPOUND.

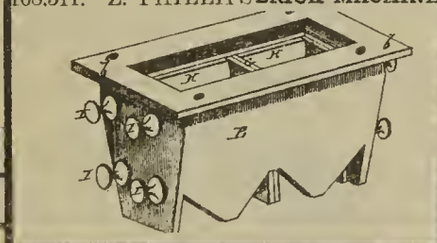
108,509. C. E. O'HARA MANUFACTURE OF PAPER.



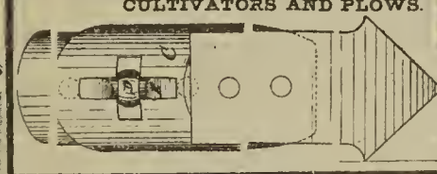
108,510. D. D. PARMELEE. COATING THE INTERIOR OF PIPES, TUBES &c., WITH SILVER OR OTHER METAL BY THE ELECTRO DEPOSITING PROCESS.



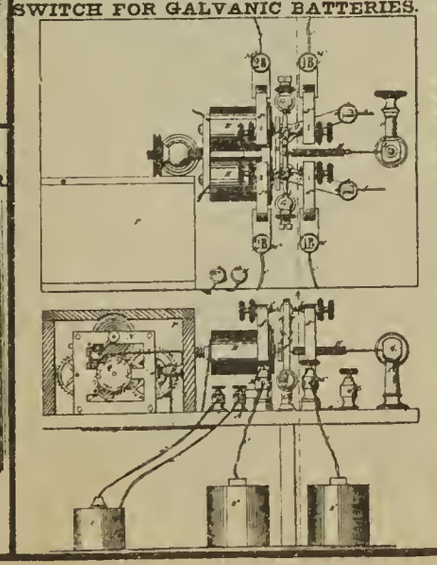
108,511. Z. PHILLIPS BRICK MACHINE.



J. PIERPONT AND S. S. TUTTLE 108,512 FASTENING FOR SHOVELS FOR CULTIVATORS AND PLOWS.



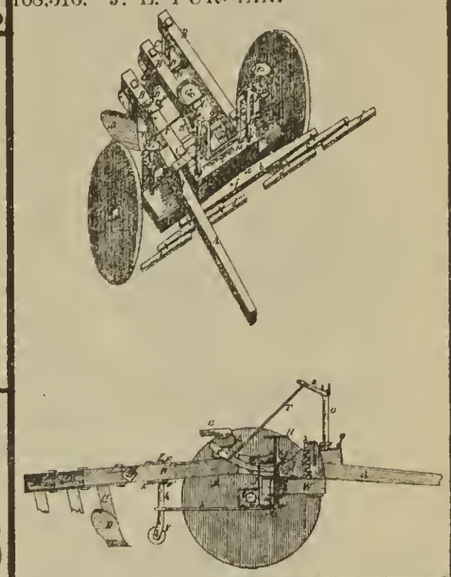
108,513. E. M. PIERSON SWITCH FOR GALVANIC BATTERIES.



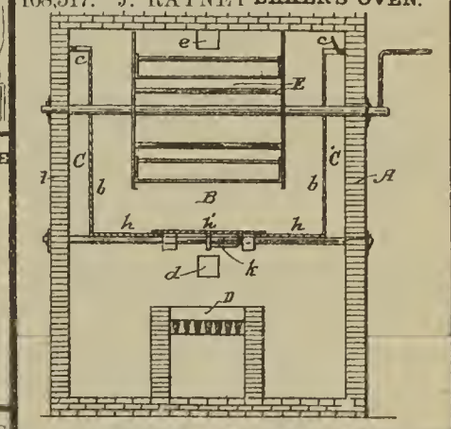
108,514 J. POEY MANUFACTURE OF SUGAR.

108,515. J. L. POST. BACK LASH FOR MILL GEARING.

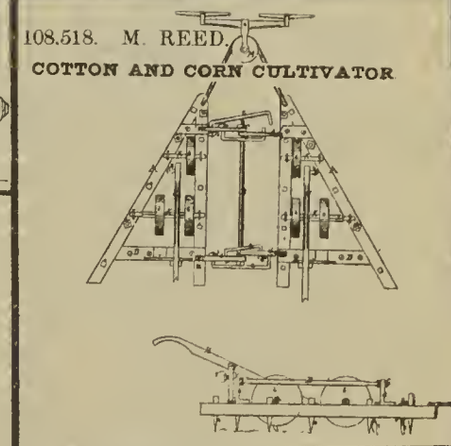
108,516. J. L. PURCELL GANG PLOW.



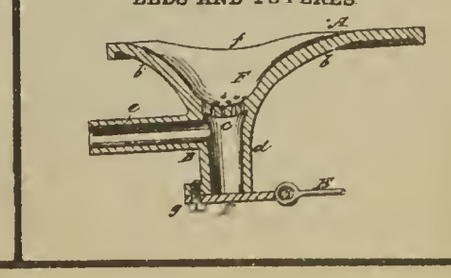
108,517. J. RAYNEY BAKER'S OVEN.



108,518. M. REED. COTTON AND CORN CULTIVATOR.



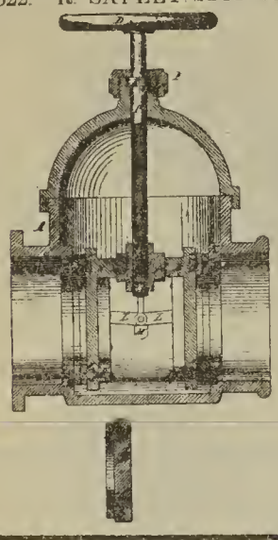
108,519. P. H. AND F. M. ROOTS. CONSTRUCTION, JOINTLY, OF FIRE BEDS AND TUYERES.



108,520. W. SACKERMANN
BROOCH FASTENING.

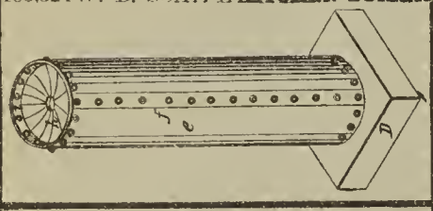
108,521. C. SACRE, S. PERKINS, AND W. SMELLIE.
MANUFACTURE OF WROUGHT IRON.

108,522. R. SAFELY. STOP VALVE.

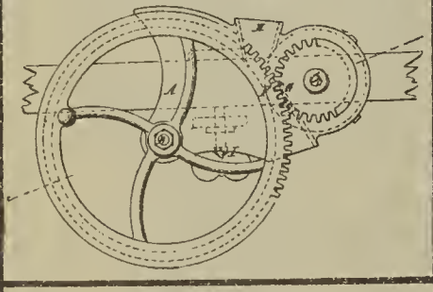


108,523. W. W. SANBORN
DYEING WOOLEN GOODS

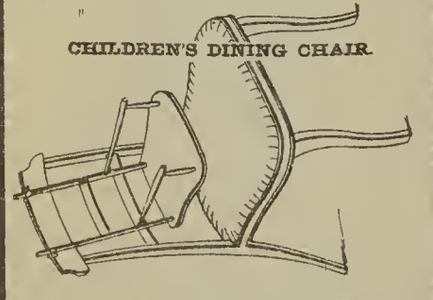
108,524 W. B. SCAIFE KITCHEN BOILER



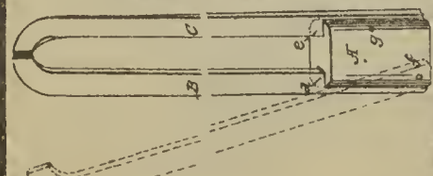
108,525 H. SEIB VEGETABLE CUTTER.



108,526. A. SMITH.
CHILDREN'S DINING CHAIR.

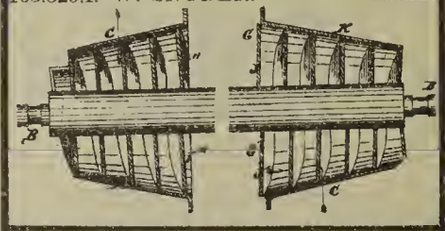


108,527. A. D. SMITH
LAMP CHIMNEY CLEANER.

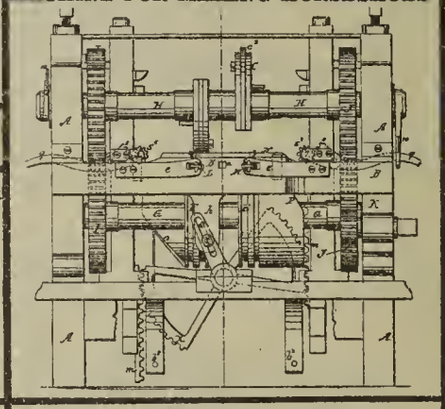


108,528. C. E. SMITH.
VAPOR BURNER.

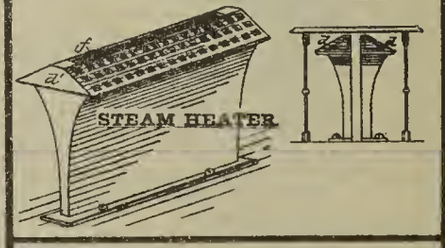
108,529. I. W. SNYDER. WATER WHEEL.



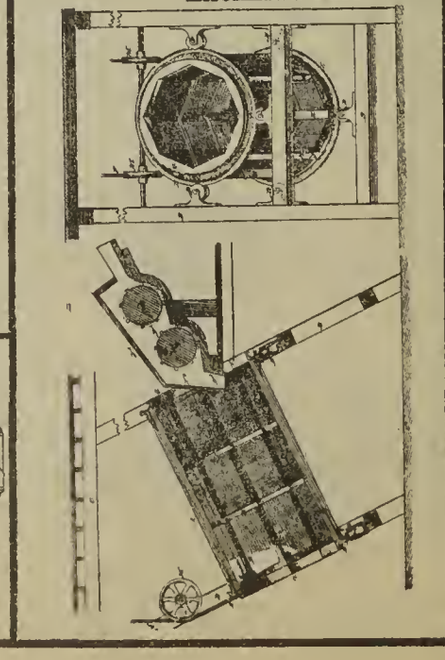
108,530. J. H. SNYDER.
MACHINE FOR MAKING HORSESHOES



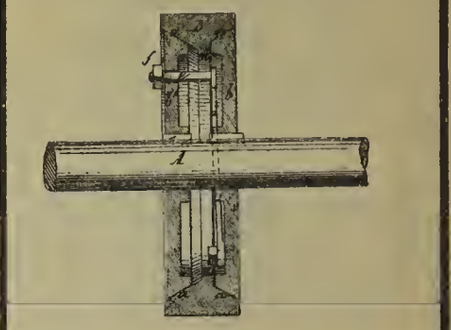
108,531. D. E. AND F. C. SOMES.
STEAM HEATER.



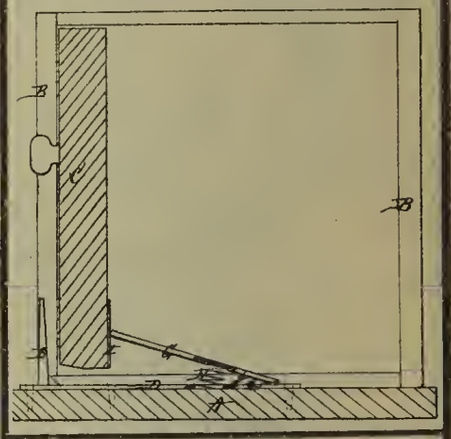
108,532. G. B. STACY.
SEPARATING ATTACHMENT FOR HUSK HACKLING MACHINES.



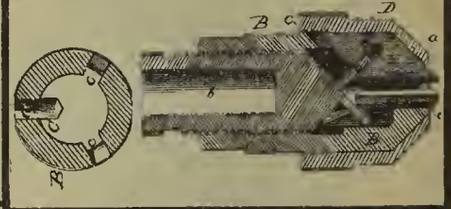
108,533. J. STEGER FRICTION PULLEY.



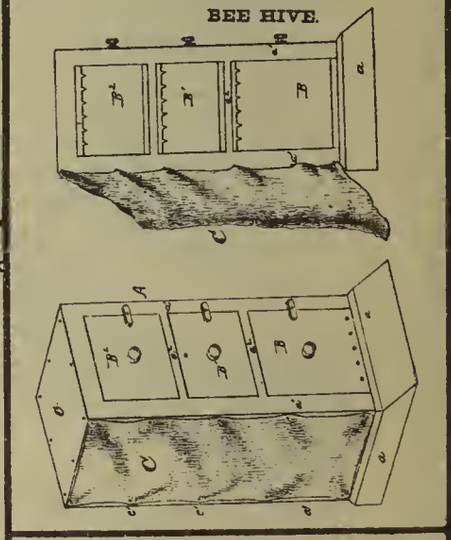
108,534. J. B. SWEETLAND.
DEVICE FOR HOLDING OPEN DOORS.



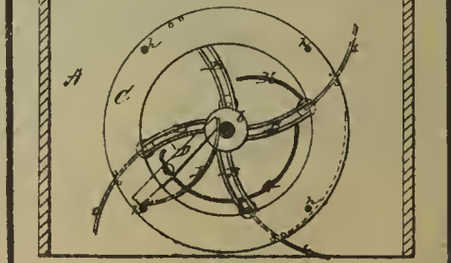
108,535. J. F. THOMAS. CHUCK.



108,536. E. B. TURNIPSEED.
BEE HIVE.

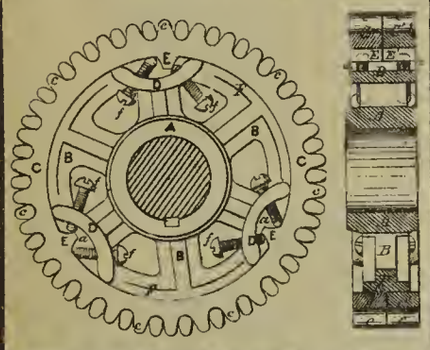


108,537. N. VANDENBURGH
POTATO DIGGER.



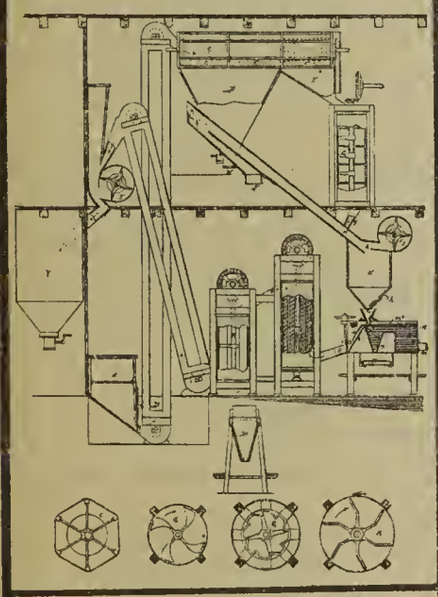
108,538. S. WALSH. SINK.

108,539. W. H. WARD. ADJUSTABLE GEAR WHEEL.



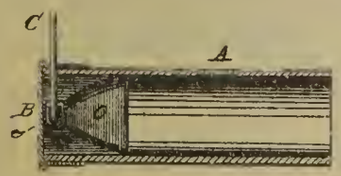
108,540. A. WARFIELD MANUFACTURE OF SOAP

108,541. F. WEGMANN MACHINE FOR CLEANING AND SEPARATING GRAIN

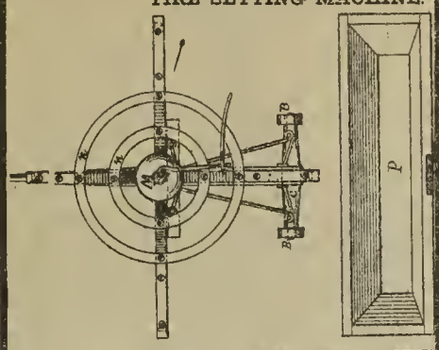


108,542. C. S. WELLS MANUFACTURE OF BOXES, CARTRIDGE CASES, &c.

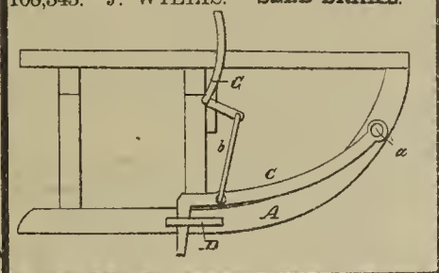
108,543. D. E. WILLIAMS CARTRIDGE.



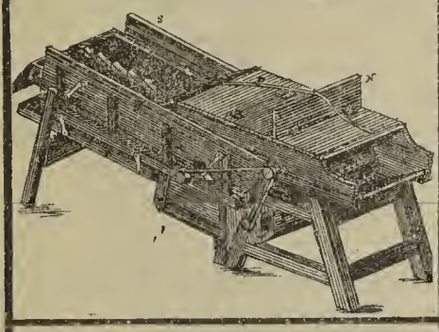
108,544. J. H. WILLIAMS. TIRE SETTING MACHINE.



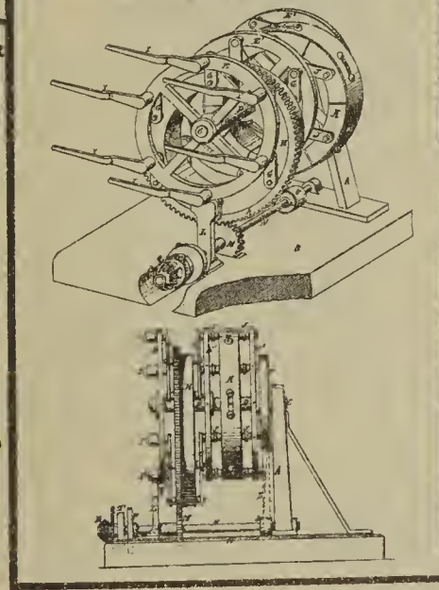
108,545. J. WILLIS. SLED BRAKE.



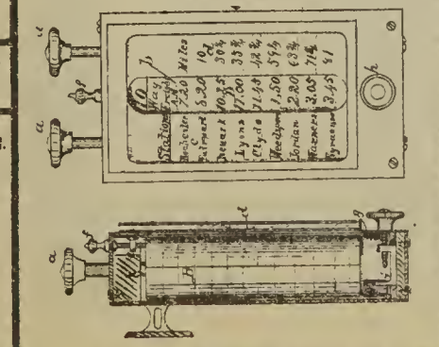
108,546. A. WISSLER. SEPARATOR OF THRASHING MACHINES.



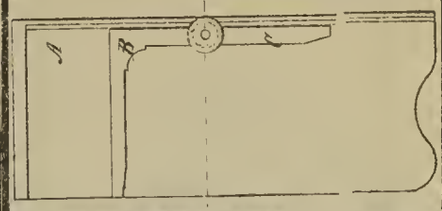
108,547. J. WOOLF. MECHANICAL MOVEMENT



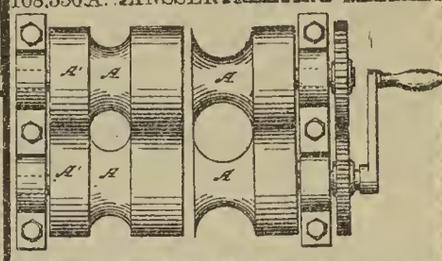
108,548. L. WRIGHT. TIME TABLE INDICATOR.



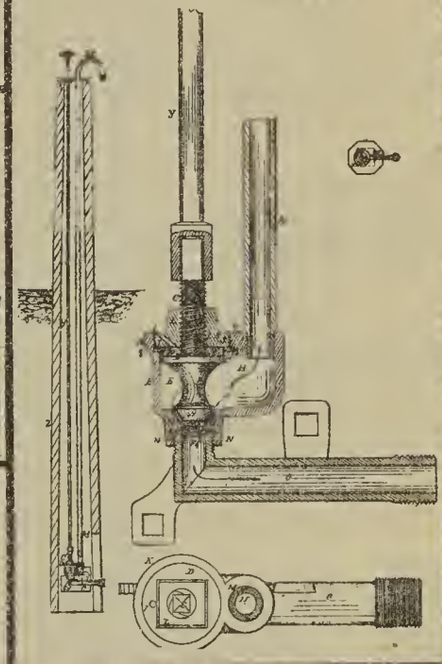
108,549. R. C. YOUNG. COMPOSING STICK.



108,550 A. ZINSSER TREATING SHELLAC

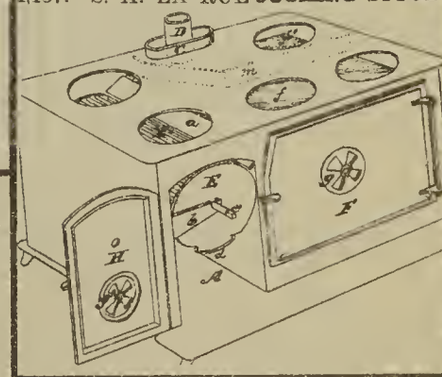


4,155. W. BAILEY. HYDRANT.



4,156. W. A. IVES. AUGER.

4,157. S. H. LA RUE COOKING STOVE



4,158. J. L. SAMUELS. PRESERVING AND HARDENING WOOD.

4,159. D. S. WOOD OCHER FOR PAINTS

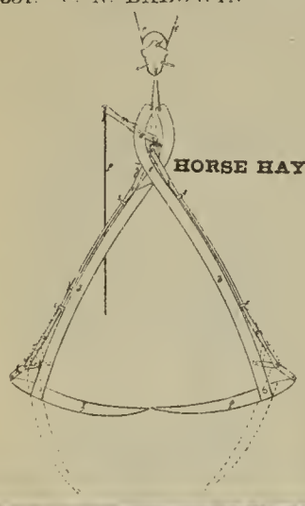
ILLUSTRATIONS OF PATENTS

ISSUED FROM

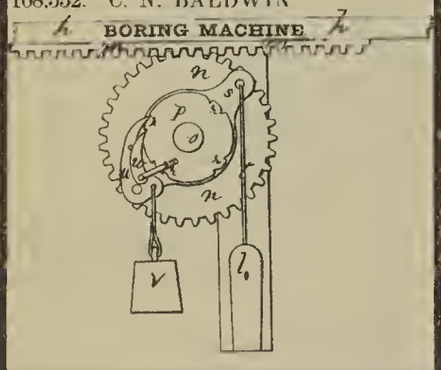
THE UNITED STATES PATENT OFFICE

OCTOBER 25, 1870.

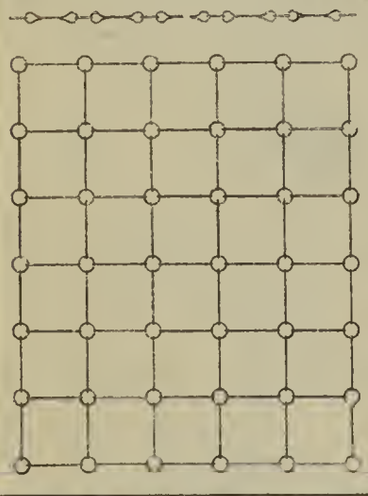
108,551. C. N. BALDWIN
HORSE HAY FORK.



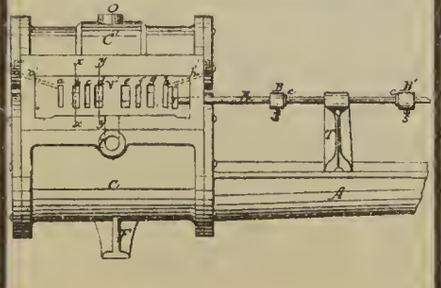
108,552. C. N. BALDWIN
BORING MACHINE.



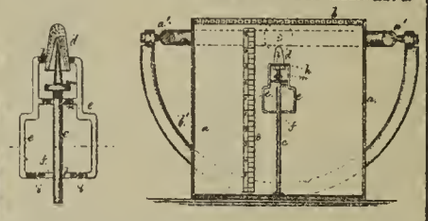
108,553. W. BECK.
METALLIC FISH NET, &c.



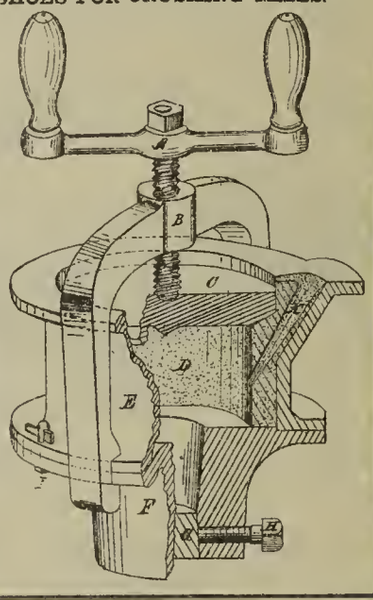
108,554. G. F. BLAKE. STEAM PUMP.



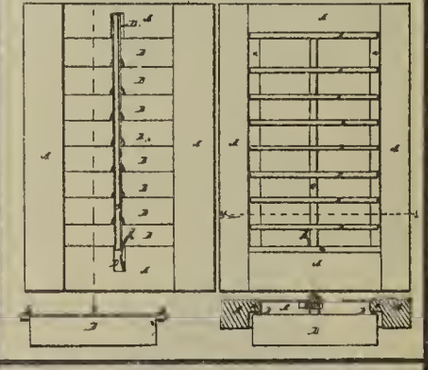
108,555. J. BLOMGREN
COMPASS FOR MINING



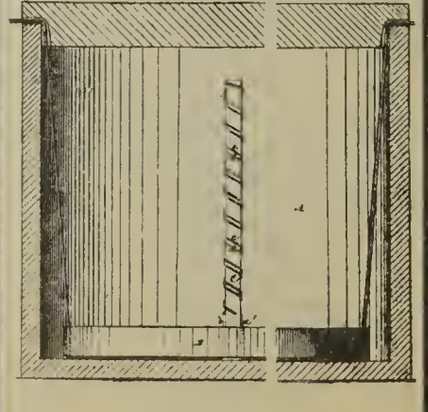
108,556. H. BOLTHOFF.
FLASK FOR CASTING STAMP SHOES FOR CRUSHING MILLS.



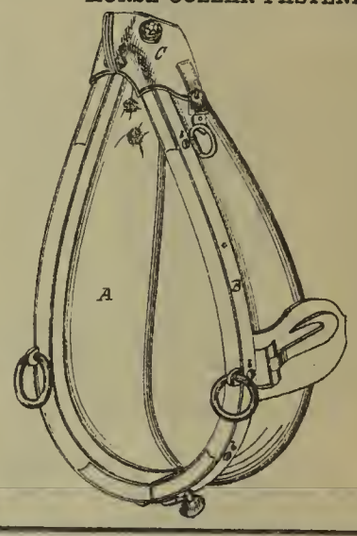
108,557. J. P. BOYD. WINDOW BLIND.



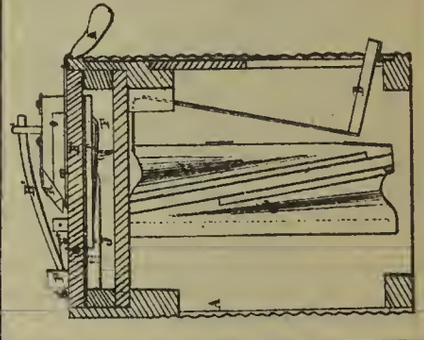
108,558. L. BRADLEY. APPARATUS FOR DEODORIZING AND IMPROVING ALCOHOLIC AND VINOUS LIQUORS.



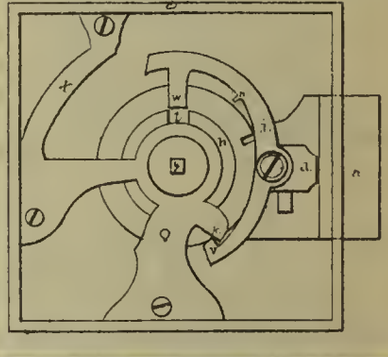
108,559. A. BRATNOBER.
HORSE COLLAR FASTENING.



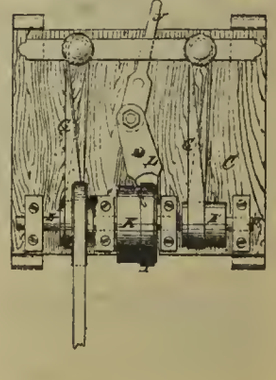
108,560. T. BRETT. MELODEON.



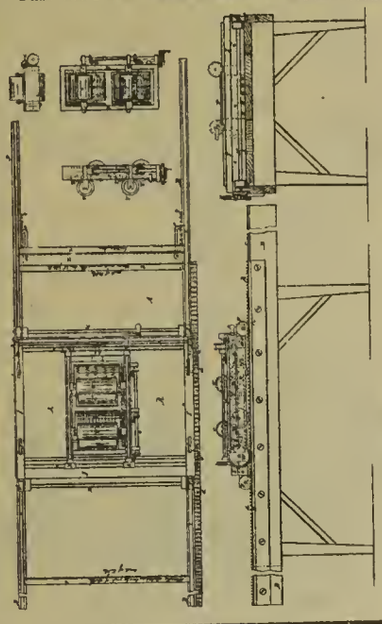
108,561. E. W. BRETTELL
PERMUTATION LOCK.



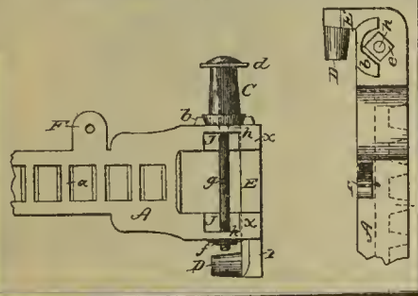
108,562. J. B. BROWN.
HAT POUNCING MACHINE.



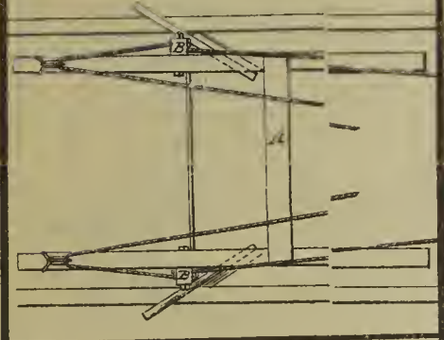
108,563. A. F. BUCHANAN. OIL CLOTH PRINTING MACHINERY.



108,564. G. E. BURT. LINK FOR ENDLESS CHAIN HORSE POWER.

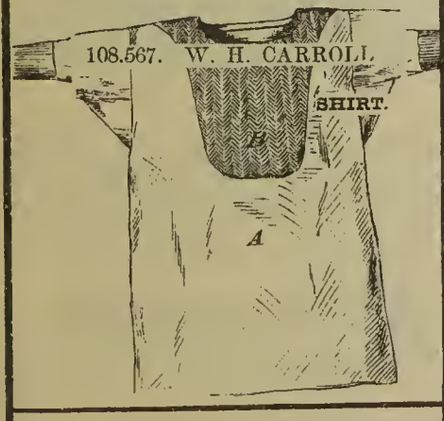


108,565. A. M. BUTTS. SNOW PLOW.

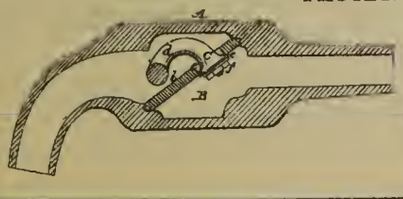


108,566. A. C. CAMPBELL. ASPHALT PAVEMENT.

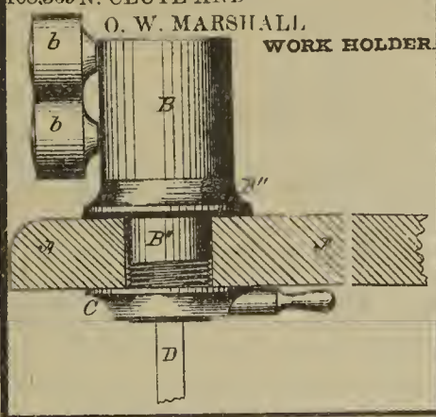
108,567. W. H. CARROLL. SHIRT.



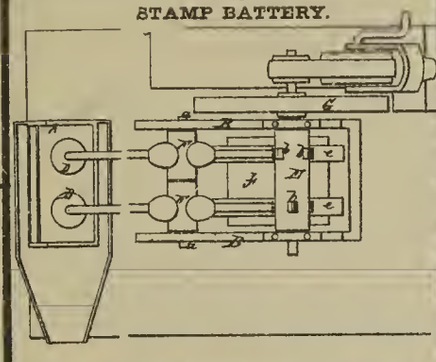
108,568. W. F. CLASS AND L. W. SAPP. FAUCET.



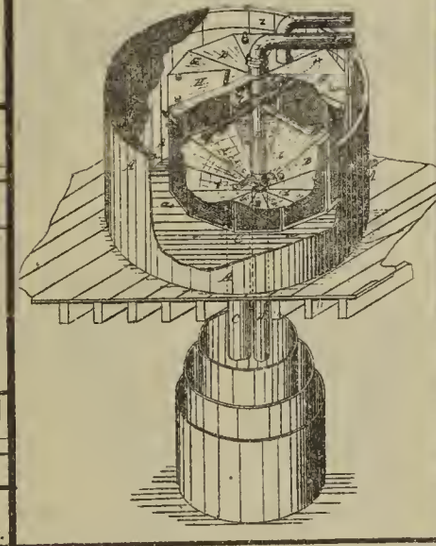
108,569. N. CLUTE AND O. W. MARSHALL. WORK HOLDER.



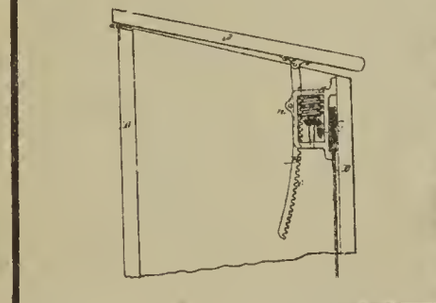
108,570. G. D. CROCKER. STAMP BATTERY.



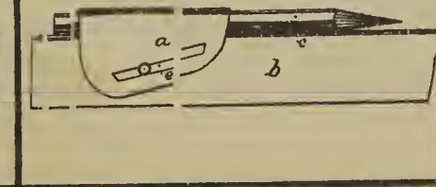
108,571. C. W. DWELLE. MANUFACTURE OF WHITE LEAD.



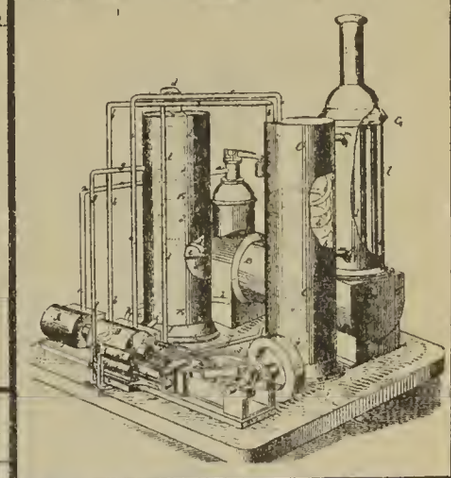
108,572. W. DYATT. DEVICE FOR OPERATING SKYLIGHTS.



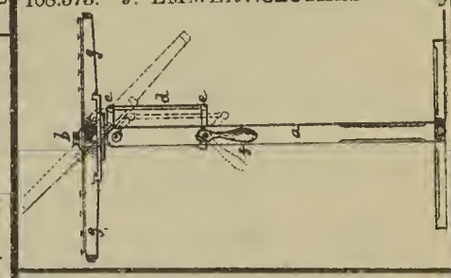
108,573. C. A. EATON. PENCIL HOLDER.



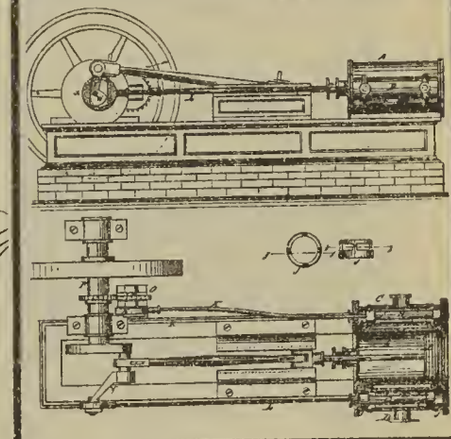
108,574. J. A. H. ELLIS. COMBINED STEAM AND GAS ENGINE.



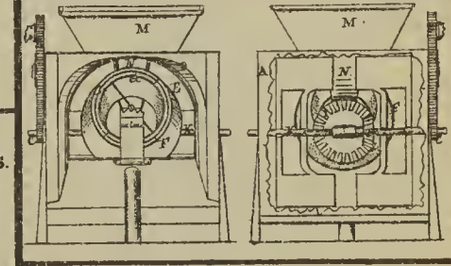
108,575. J. EMMERT. CLOTHES DRIER.



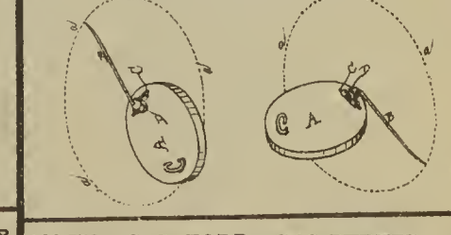
108,576. P. ESTES. STEAM ENGINE.



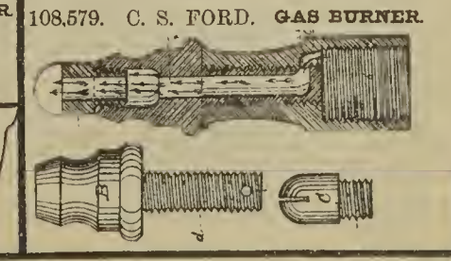
108,577. J. G. EVANS. GRAIN SEPARATOR.



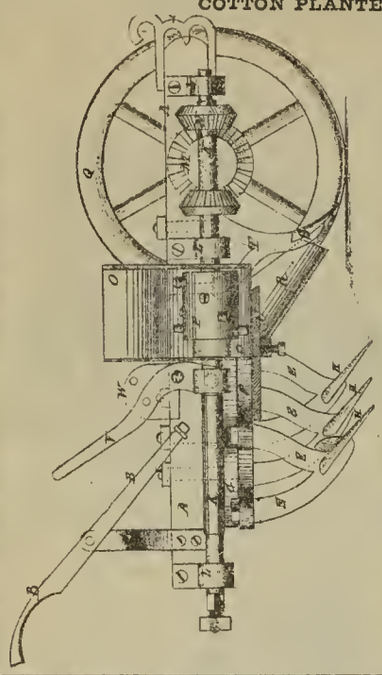
108,578. I. FARJEON AND W. H. HORTON. JEWELRY PIN.



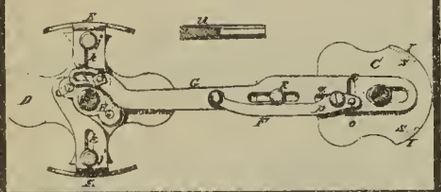
108,579. C. S. FORD. GAS BURNER.



108,580. A. G. W. FOSTER COTTON PLANTER.

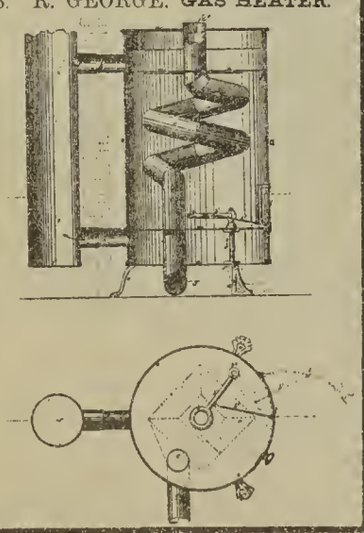


108,581. B. GALLAGHER SKATE FASTENING.

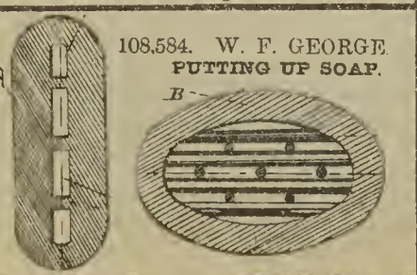


108,582. C. GAYTES WOOD PAVEMENT

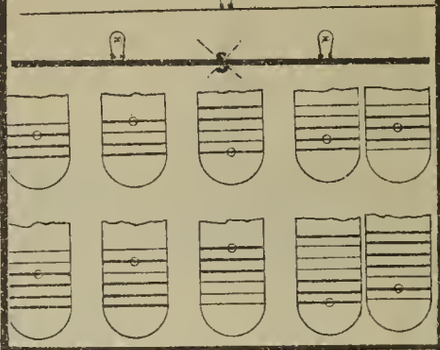
108,583. R. GEORGE. GAS HEATER.



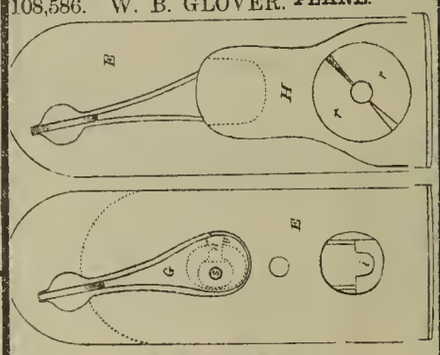
108,584. W. F. GEORGE PUTTING UP SOAP.



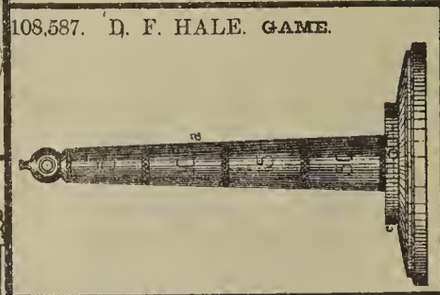
108,585 J. W. GIRDLESTONE PREVENTING THE DEVIATION OF SHIPS COMPASSES.



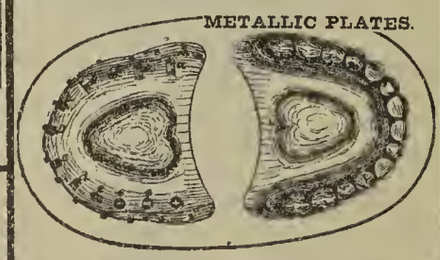
108,586. W. B. GLOVER. PLANE.



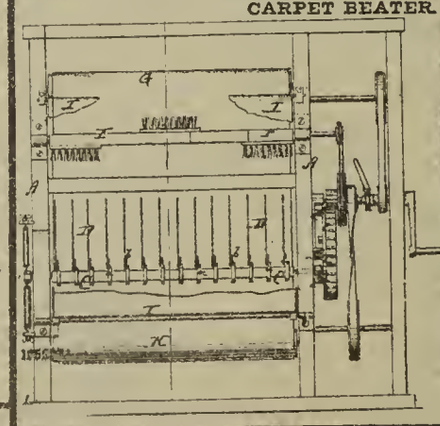
108,587. D. F. HALE. GAME.



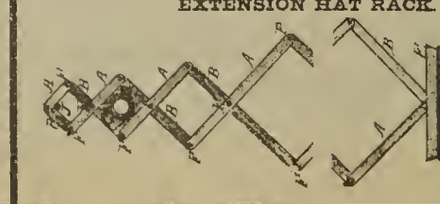
108,588. H. B. HALE. FASTENING ARTIFICIAL TEETH TO METALLIC PLATES.



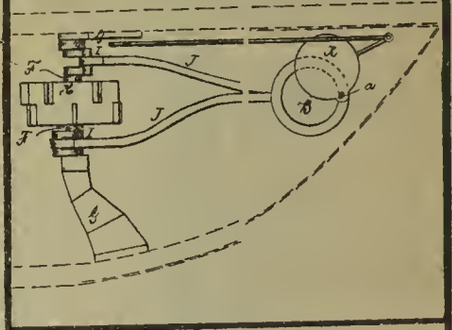
108,589. W. H. HANKINSON CARPET BEATER.



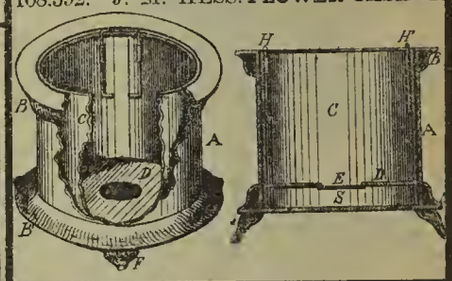
108,590. N. HAYDEN EXTENSION HAT RACK.



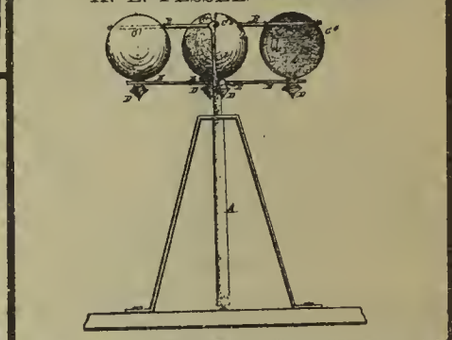
108,591 T. HERBERT POTATO PLANTER.



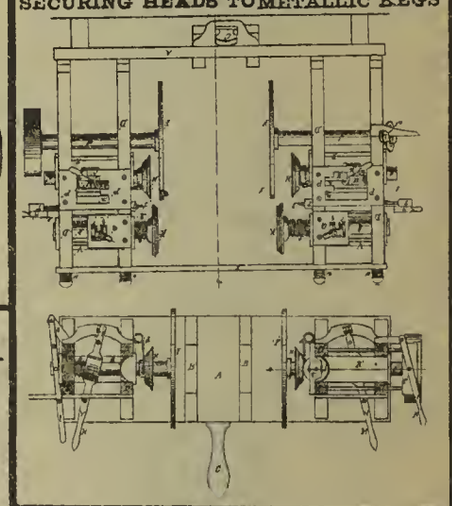
108,592. J. M. HESS. FLOWER CASKET.



108,593. J. O. HEYWORTH AND H. E. FESSEL WIND WHEEL.

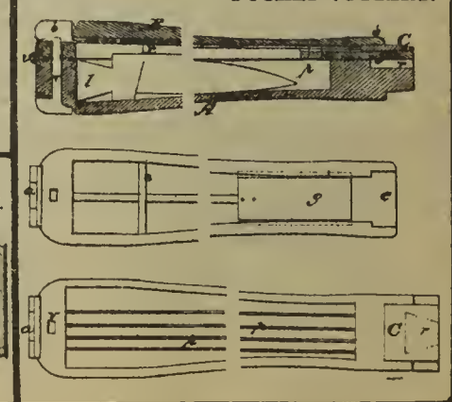


108,594. W. HILL. MACHINE FOR SECURING HEADS TO METALLIC KEGS

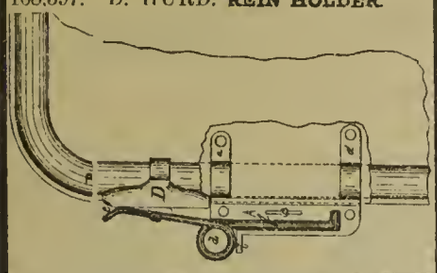


108,595. I. L. HOARD. THREAD SPOOL.

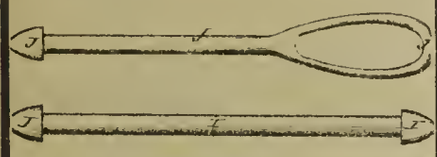
108,596. D. R. HUNDLEY. POCKET CUTLERY.



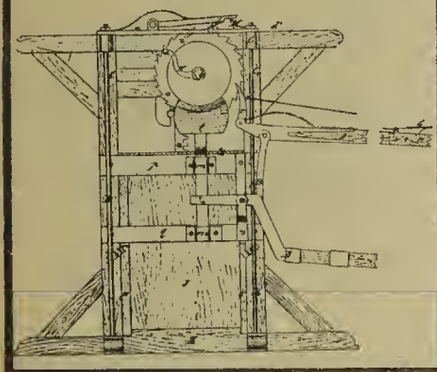
108,597. D. HURD. REIN HOLDER.



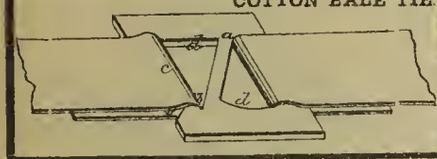
108,598. G. W. IRISH. CAR COUPLING.



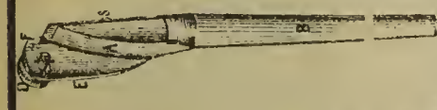
108,599. J. H. JOHNSON HAY AND COTTON PRESS.



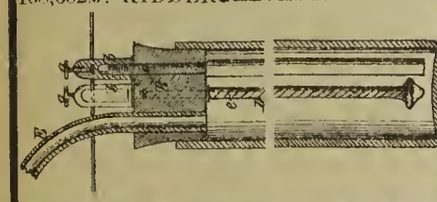
108,600. E. P. JONES COTTON BALE TIE.



108,601. S. KEEN KNIFE HOLDER AND GUIDER FOR HEEL CUTTING MACHINES.

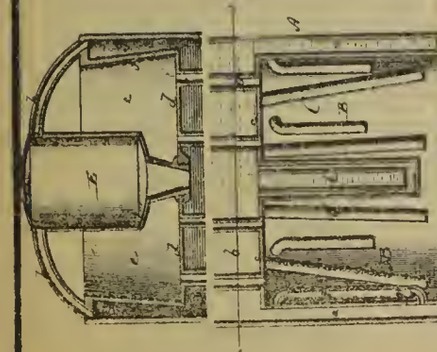


108,602. J. KIDDER GALVANIC BATTERY.

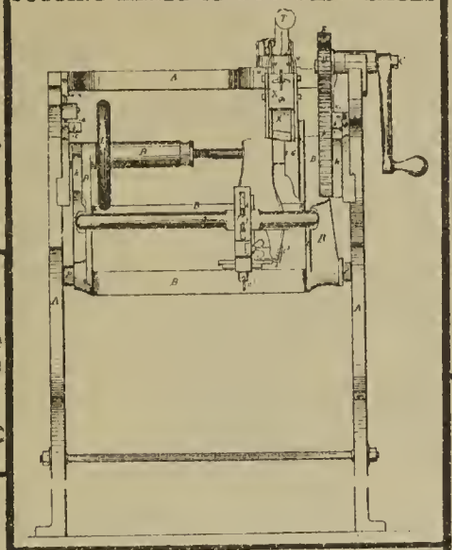


108,603. J. H. KIPP. MEDICAL COMPOUND FOR FOWLS.

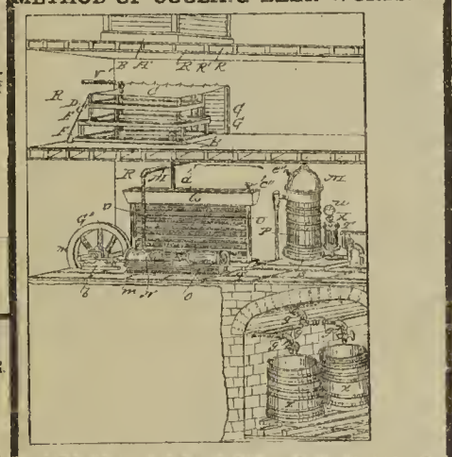
108,604. T. S. LA FRANCE. STEAM GENERATOR.



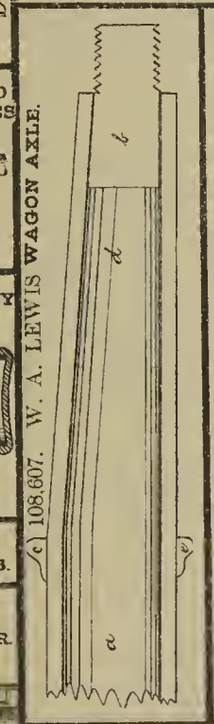
108,605. R. C. LAMBART MACHINE FOR CUTTING HEELS OF BOOTS AND SHOES.



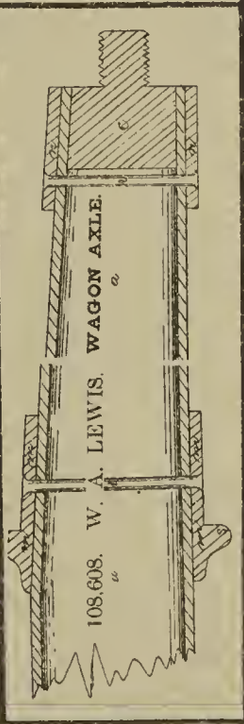
108,606. O. P. LEWIS. METHOD OF COOLING BEER WORTS. &c.



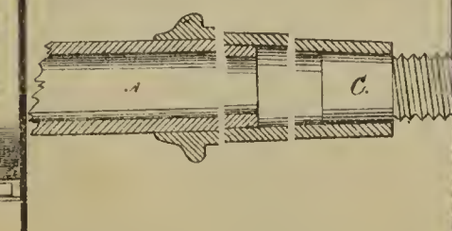
108,607. W. A. LEWIS WAGON AXLE.



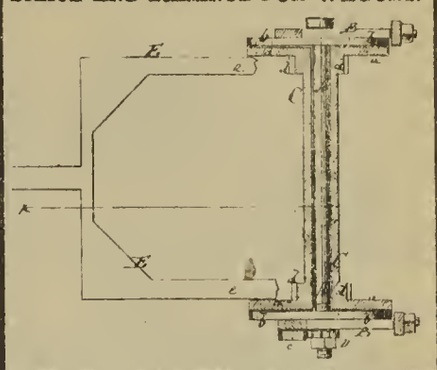
108,608. W. A. LEWIS. WAGON AXLE.



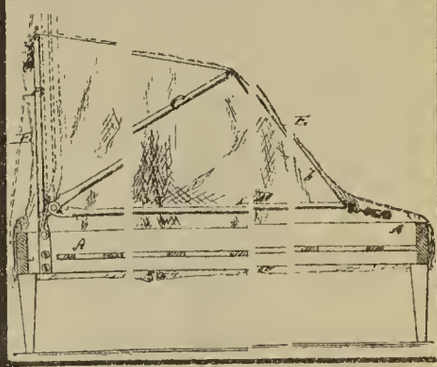
108,609. W. A. LEWIS WAGON AXLE.



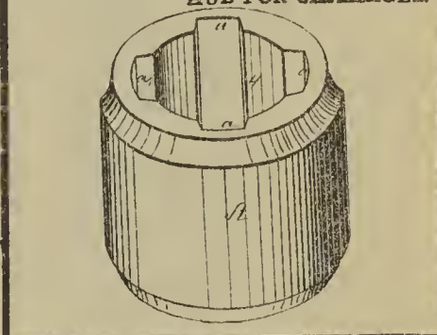
108,610. A. J. MAPES. TONGUE BRACE AND BALANCE FOR WAGONS.



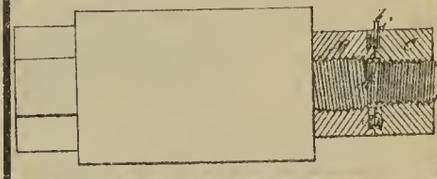
108,611. T. MASAC. MOSQUITO BAR.



108,612. J. A. MAYNARD. HUB FOR CARRIAGES.



108,613. H. W. McAULEY. NUT LOCK.

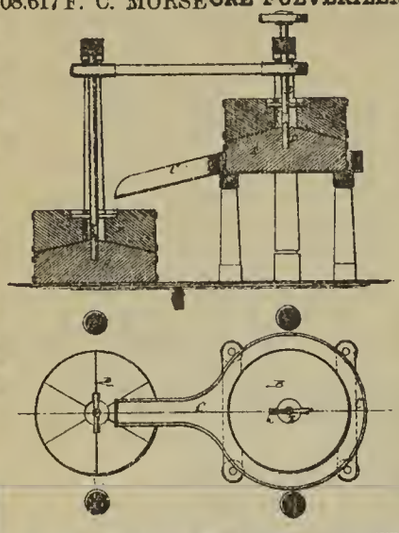


108,614. W. B. McCLURE. CART SADDLE.

108,615. C. McILVAINE. COPYING INK FOR PRINTING.

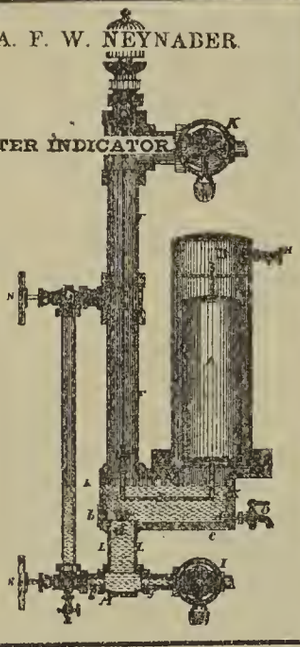
108,616. C. A. MOFFATT. DRIER.

108,617 F. C. MORSE ORE PULVERIZER



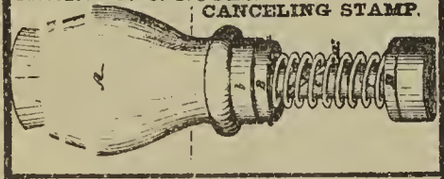
108,618. A. F. W. NEYNABER.

LOW WATER INDICATOR



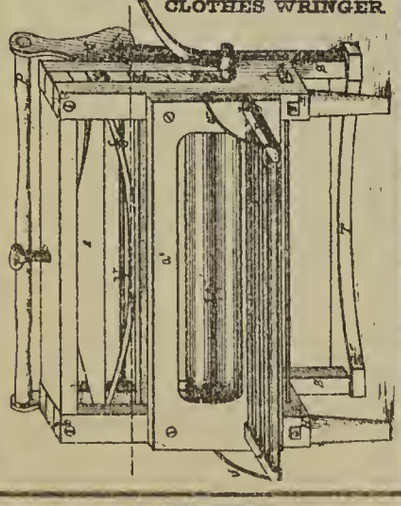
108,619. G. C. NOYES.

CANCELING STAMP.



108,620. A. O'DELL.

CLOTHES WRINGER.

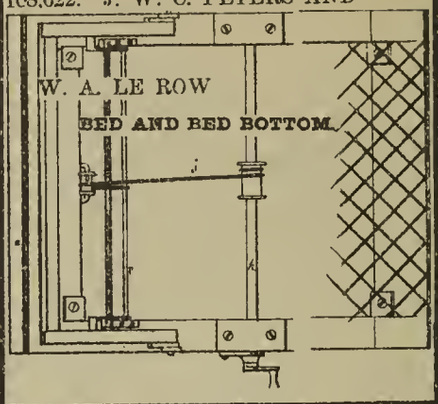


108,621. D. A. PELOUBET.

CHAIN LINK AND BAR.

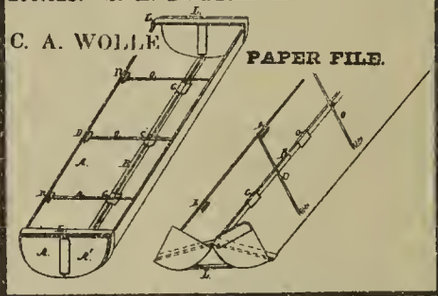
108,622. J. W. C. PETERS AND W. A. LE ROW

BED AND BED BOTTOM.



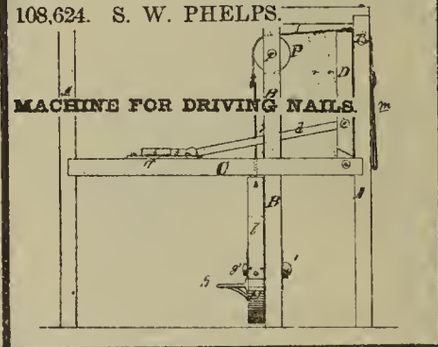
108,623. S. E. PETTEE AND C. A. WOLLE.

PAPER FILE.



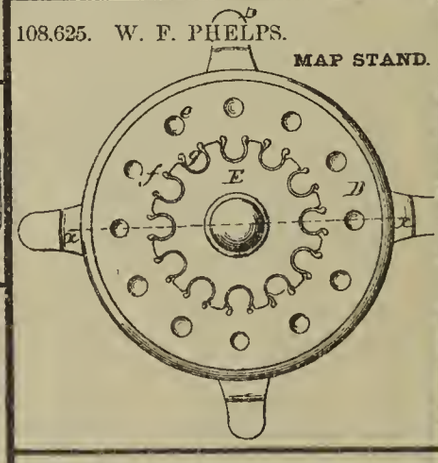
108,624. S. W. PHELPS.

MACHINE FOR DRIVING NAILS.

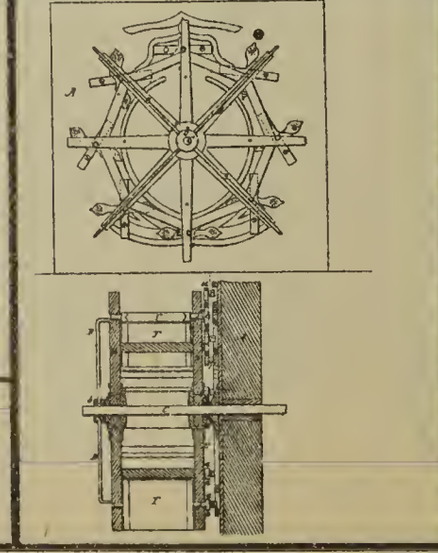


108,625. W. F. PHELPS.

MAP STAND.



108,626. J. W. POST. PADDLE WHEEL

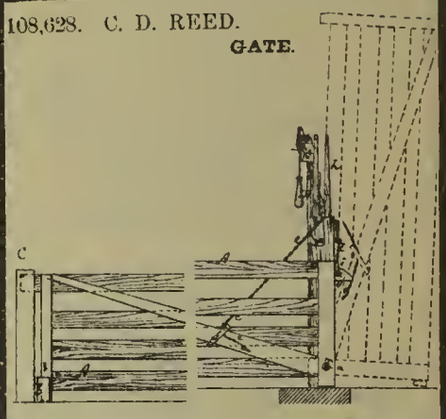


108,627. E. L. RANSOME.

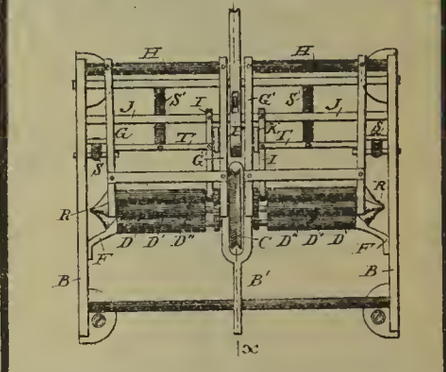
REMOVING SOLUBLE SALTS FROM ARTIFICIAL STONE

108,628. C. D. REED.

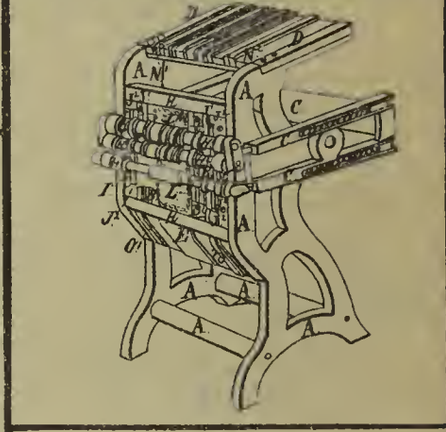
GATE.



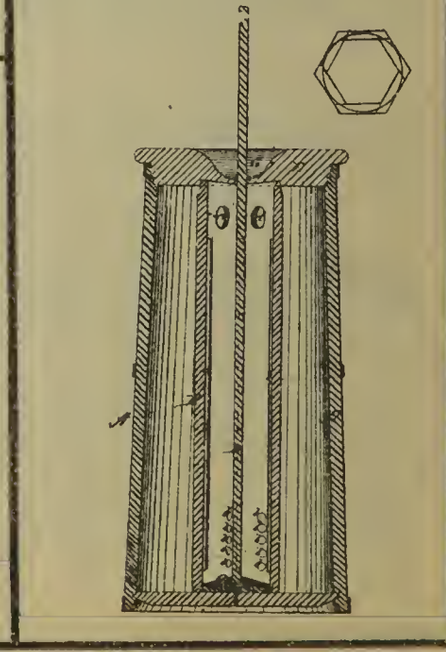
108,629. J. O. REILLEY CIGAR MACHINE



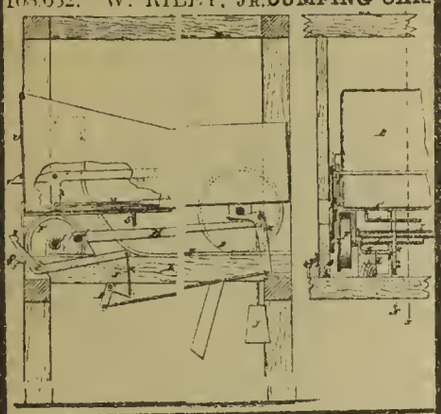
108,630. I. L. G. RICE. INKING APPARATUS FOR COLOR PRINTING



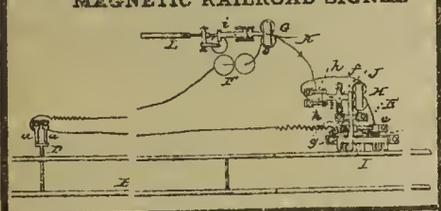
108,631. J. C. RICHARDSON AND L. TAYLOR. CHURN.



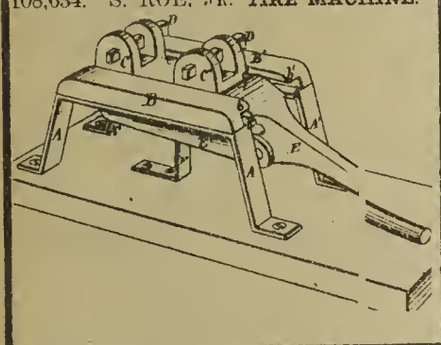
108,632. W. RILEY, JR. DUMPING CAR.



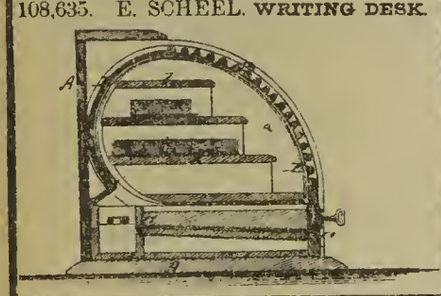
108,633. W. ROBINSON. ELECTRO MAGNETIC RAILROAD SIGNAL



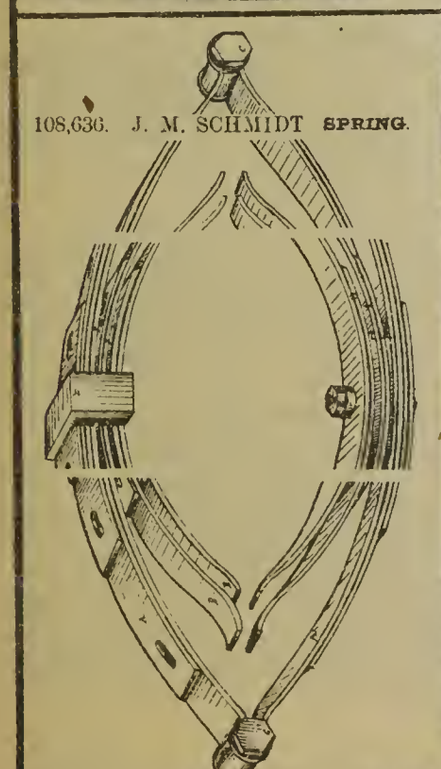
108,634. S. ROE, JR. TIRE MACHINE.



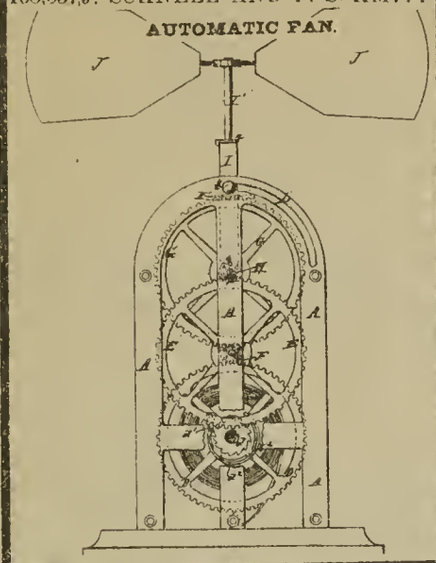
108,635. E. SCHEEL. WRITING DESK.



108,636. J. M. SCHMIDT SPRING.

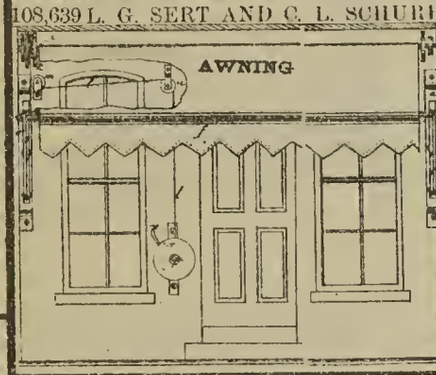


108,637. J. SCHNELL AND P. SCHMITT AUTOMATIC FAN.

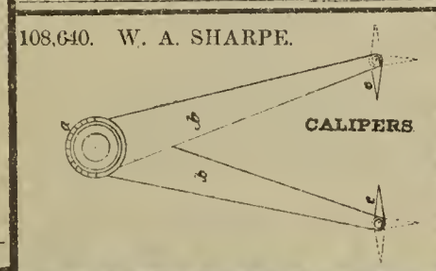


108,638. F. B. SCOTT. REIN HOLDER.

108,639. L. G. SERT AND C. L. SCHURR AWNING

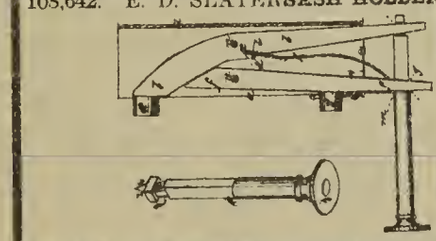


108,640. W. A. SHARPE. CALIPERS

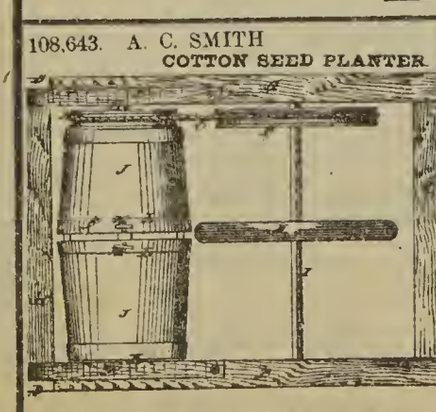


108,641. W. H. SINGER PLATE AND BAR FOR CONSTRUCTION OF PLOWS, CULTIVATOR TEETH, &c.

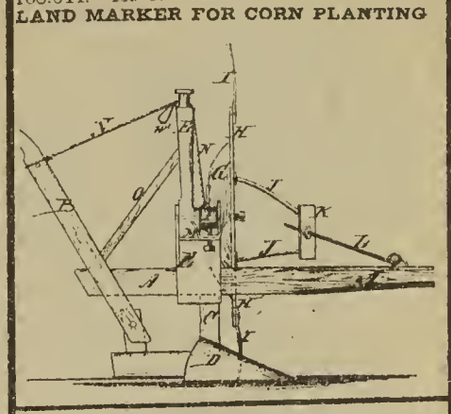
108,642. E. D. SLATER SASH HOLDER.



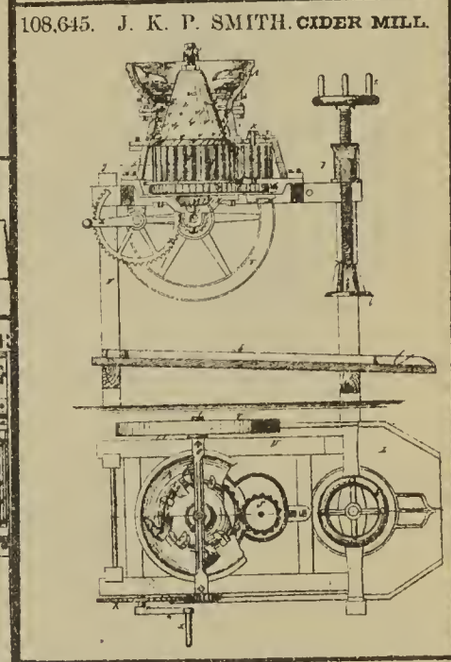
108,643. A. C. SMITH COTTON SEED PLANTER.



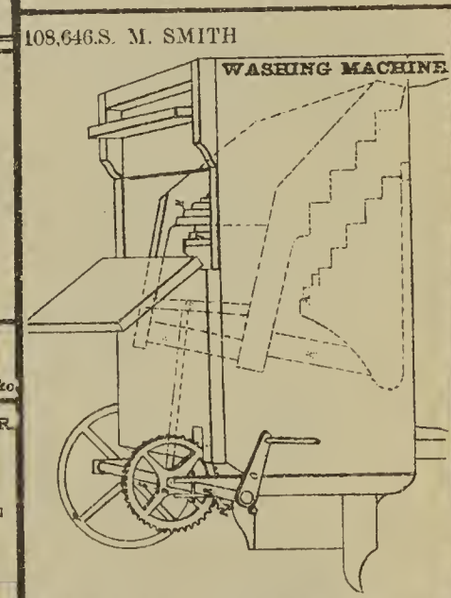
108,644. A. C. SMITH. LAND MARKER FOR CORN PLANTING



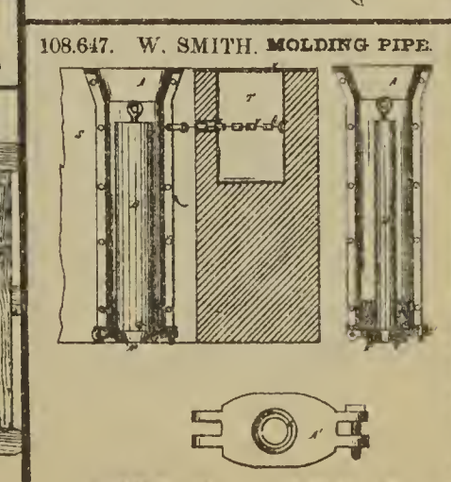
108,645. J. K. P. SMITH. CIDER MILL.



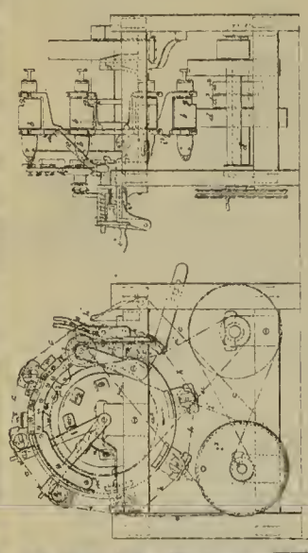
108,646. S. M. SMITH WASHING MACHINE.



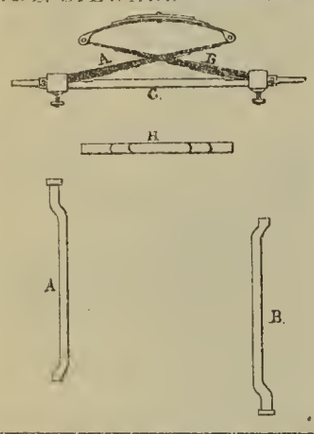
108,647. W. SMITH. MOLDING PIPE.



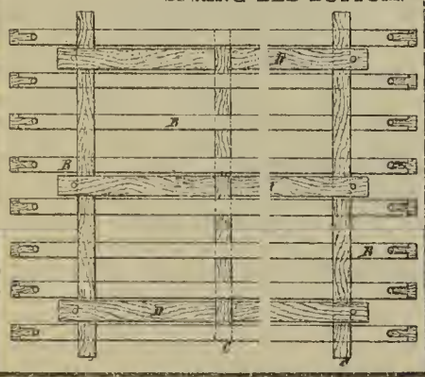
108,648 J. F. STARRETT
MACHINE FORSHAVING THE HEADS OF SCREW BLANKS



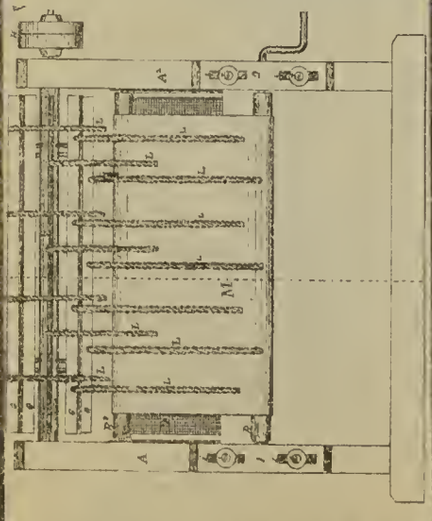
108,649 S. STEWARD CARRIAGE SPRING



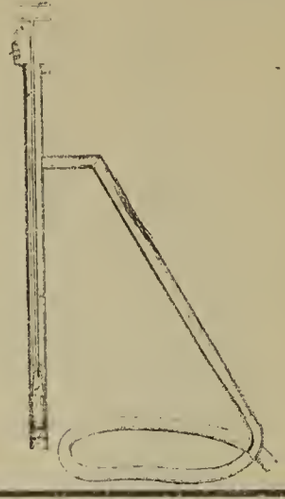
108,650. P. STOVALL.
SPRING BED BOTTOM.



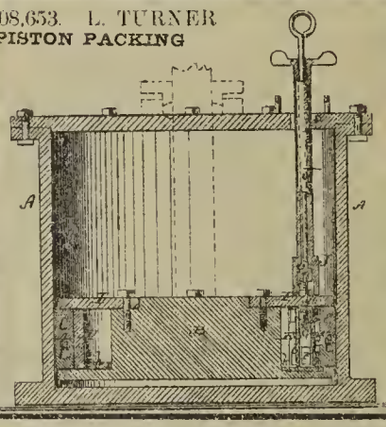
108,651. R. TERRY AND F. W. HAFKEMEYER
CARPET CLEANER.



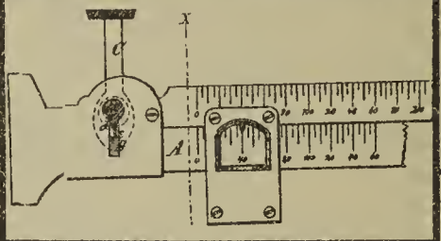
108,652. T. J. TRAPP. PUMP SIPHON.



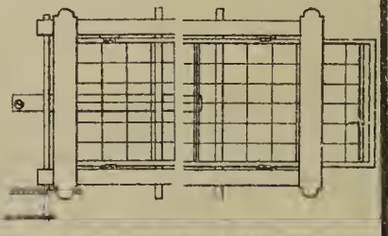
108,653. L. TURNER
PISTON PACKING



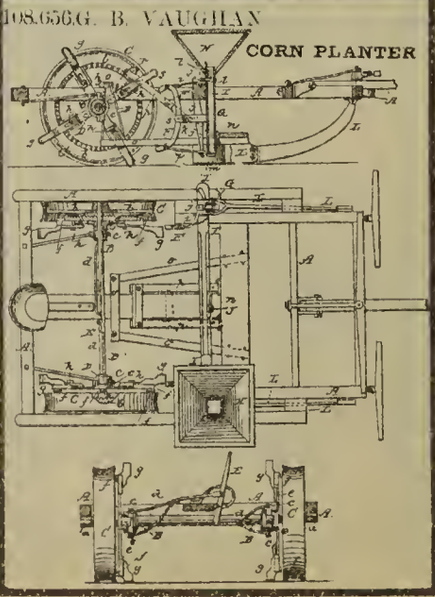
108,654. J. H. USHER. SCALE BEAM.



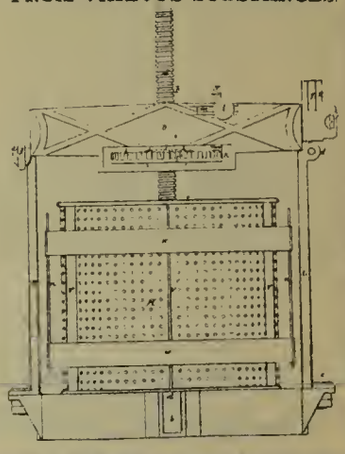
108,655 B. D. AND D. A. VANDERVEER AND T. DENISE.
MACHINE FOR ASSORTING POTATOES.



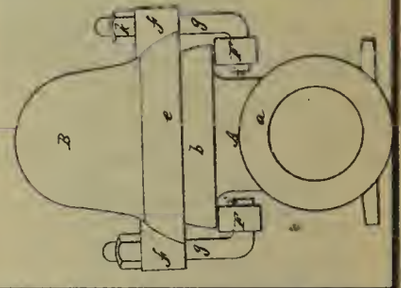
108,656 G. B. VAUGHAN
CORN PLANTER



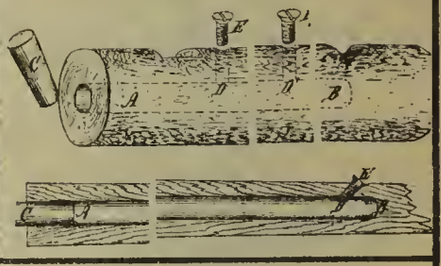
108,657. J. WATERS. PRESS
FOR REMOVING LIQUID MATTER FROM VARIOUS SUBSTANCES.



108,658. T. WATSON
HYDRAULIC MINING APPARATUS.



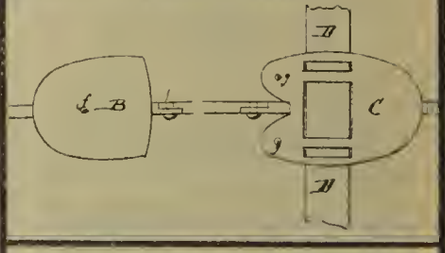
108,659. E. WEBB PRESERVING WOOD



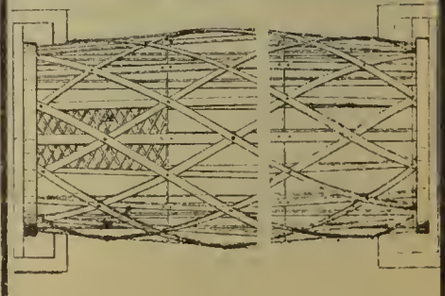
108,660. W. M. WELLING
DIE FOR MOLDING BUTTONS.

108,661. H. M. WESTMANCEMENT FOR COATING AND PROTECTING WOOD.

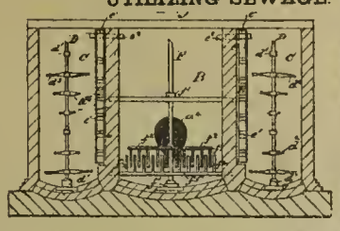
108,662. C. WHEAT. SKATE.



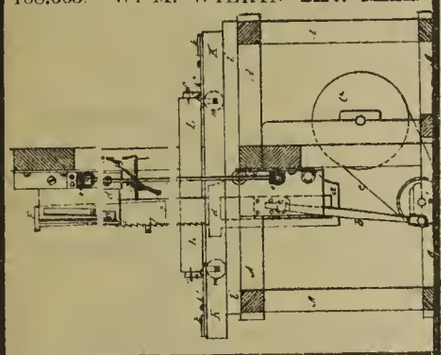
108,663 G. H. WHITE TUBULAR BRIDGE.



108,664. G. W. WIGNER.
UTILIZING SEWAGE.

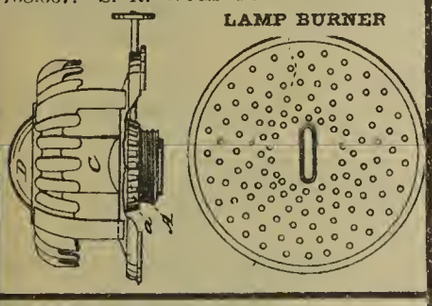


108,665. W. M. WILKIN SAW MILL.

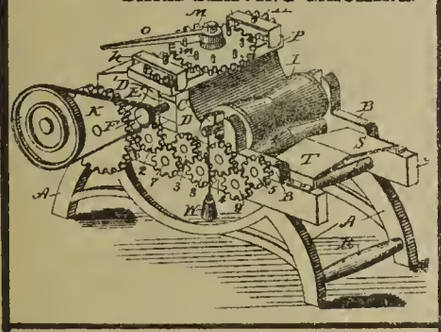


108,666. J. T. WILKINSON
ROOFING CEMENT.

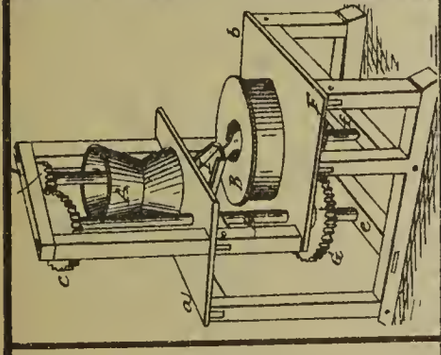
108,667. S. R. WILMOT
LAMP BURNER



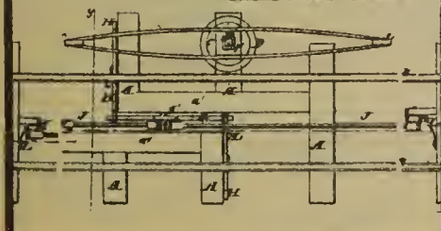
108,668. M. WINGER
BARK SHAVING MACHINE.



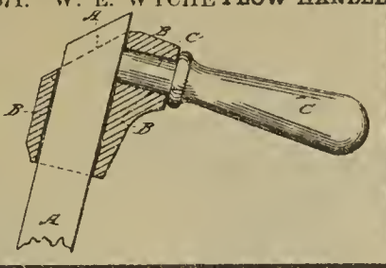
108,669. M. WINGER
MANUFACTURE OF QUERCITRON BARK



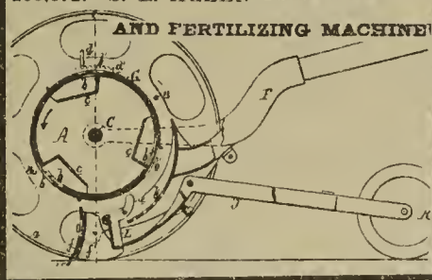
108,670. E. WOODBURY.
RAILWAY GATE.



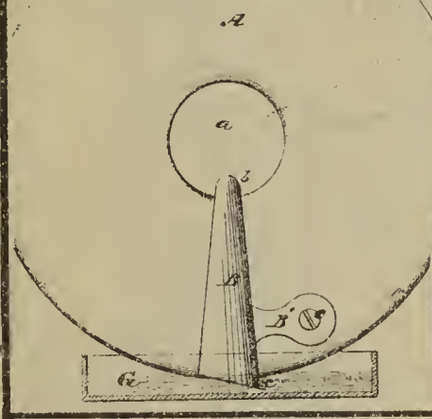
108,671. W. E. WYCHE PLOW HANDLE



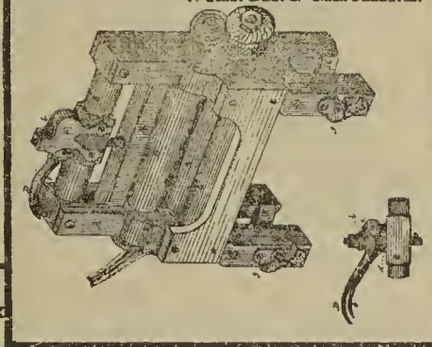
108,672. S. L. ALLEN PLANTING
AND FERTILIZING MACHINE



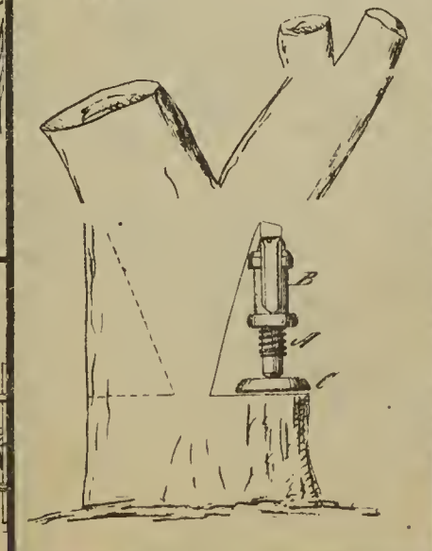
108,673. W. ARMSTRONG.
LUBRICATING DEVICE FOR BOLT
THREADING MACHINES.



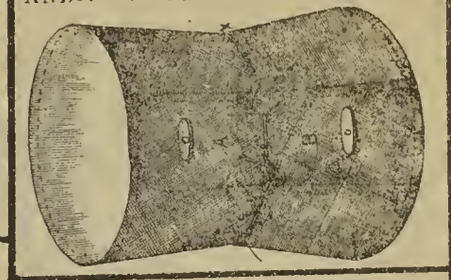
108,674. E. G. W. BARTLETT
WRINGING MACHINE.



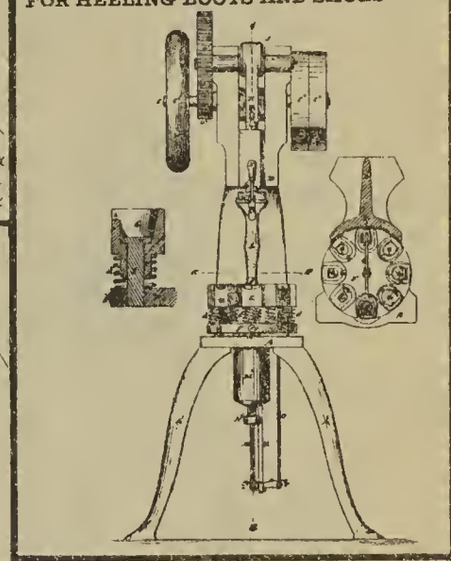
108,675. H. J. BEARD.
MACHINE FOR FELLING TREES



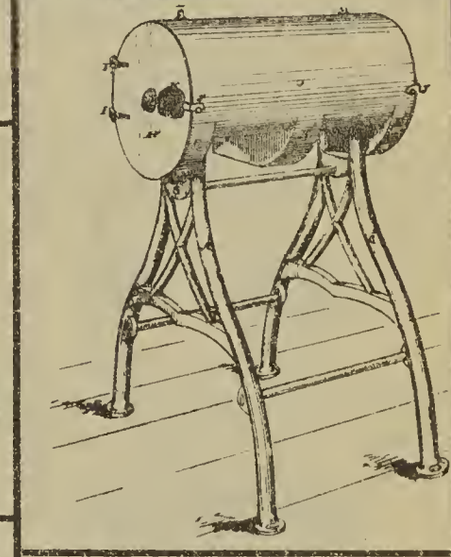
108,676. S. A. BEMIS, A. E. FOTH
AND J. W. GOODRICH PAPER CUFF.



108,677. H. H. BIGELOW, MACHINE
FOR HEELING BOOTS AND SHOES

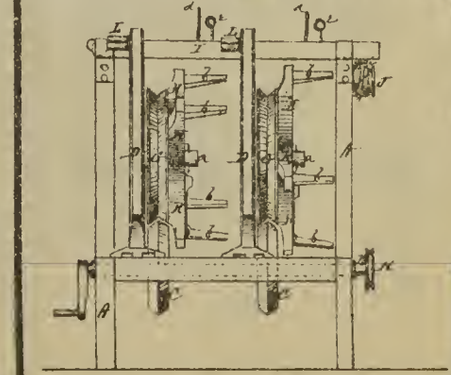


108,678. H. H. BIGELOW
MACHINE FOR FINISHING HEELS ON
BOOTS AND SHOES.

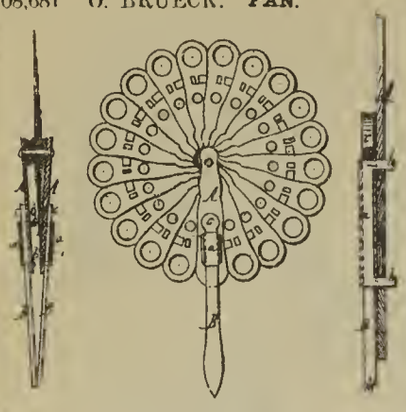


108,679. P. BOYDEN
DETACHABLY TIPPED WHIP.

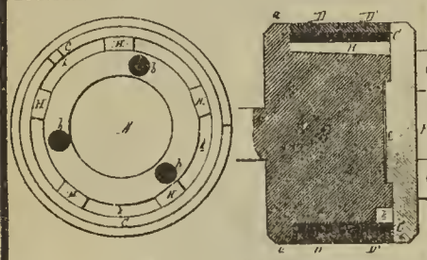
108,680. J. BRIGGS REELING MACHINE



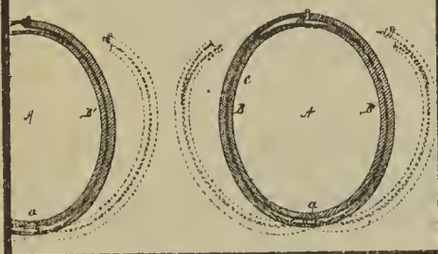
108,681 O. BRUECK. FAN.



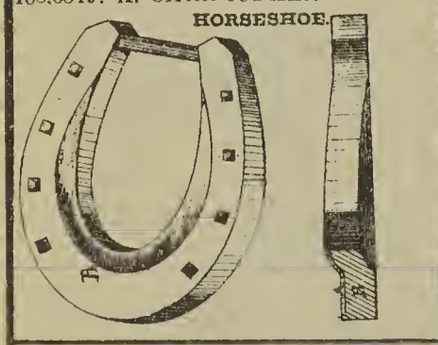
108,682. I. D. BUCK. PISTON.



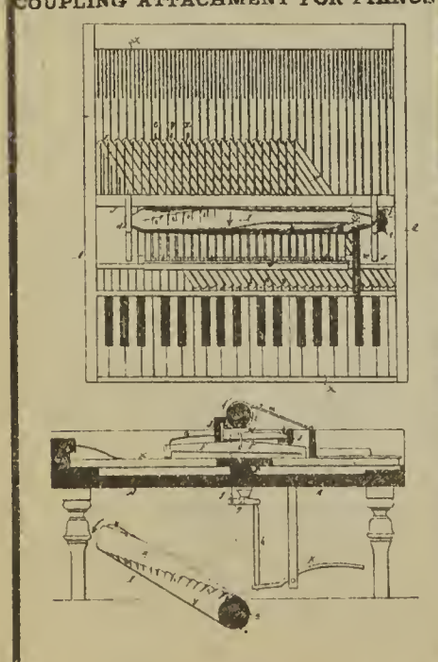
108,683. H. CARLISLE. JR. BRACELET.



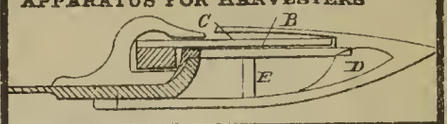
108,684 J. K. CHRISTOPHER HORSESHOE.



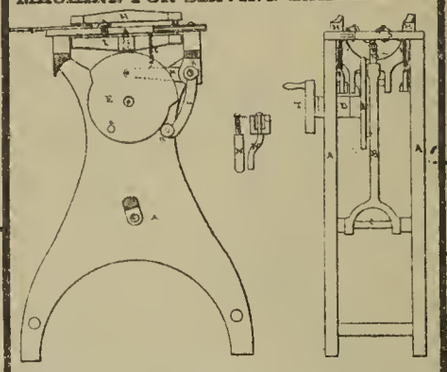
108,685. J. CLARK. COUPLING ATTACHMENT FOR PIANOS



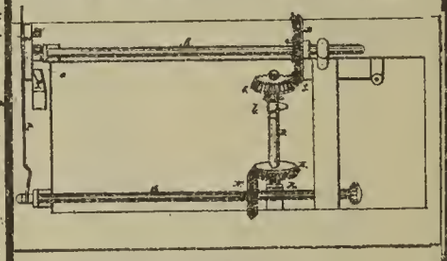
108,686 T. J. AND G. M. CLARK CUTTING APPARATUS FOR HARVESTERS



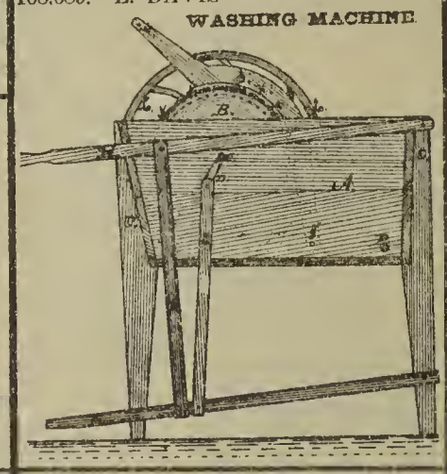
108,687. J. P. CROOKS. MACHINE FOR SKIVING LEATHER.



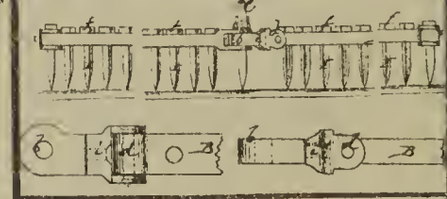
108,688. J. CUMNOCK SELF ACTING MULE FOR SPINNING.



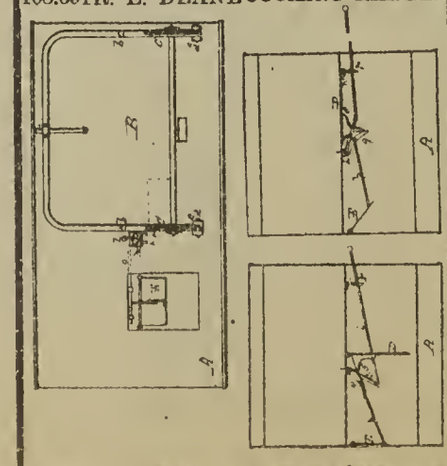
108,689. E. DAVIS WASHING MACHINE.



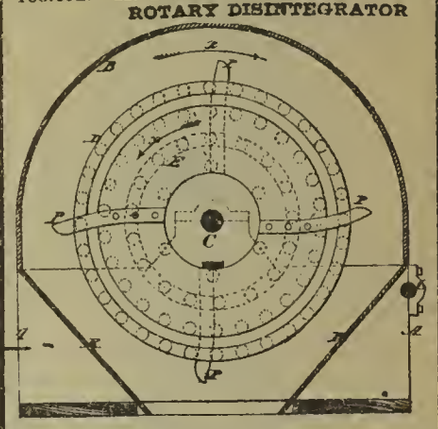
108,690. J. DAWSON HARROW.



108,691 R. E. DEANE COOKING RANGE.

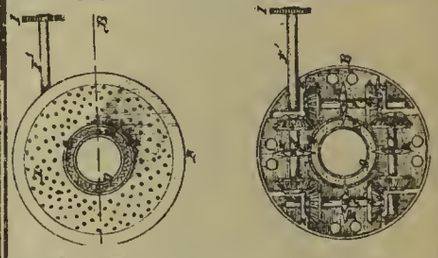


108,692. H. DUCSH ROTARY DISINTEGRATOR

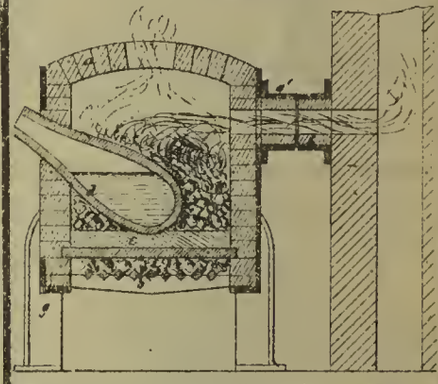


108,693. G. H. S. DUFFUS CONCRETE FOR PAVEMENT. &c.

108,694. J. W. EMERSON HOLLOW WICK LAMP BURNER

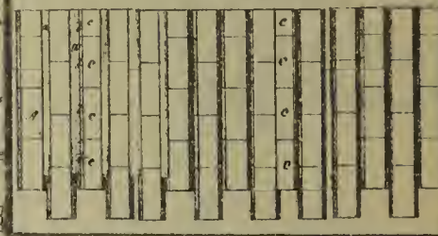


108,695. A. F. DU FAUR. RETORT FURNACE.



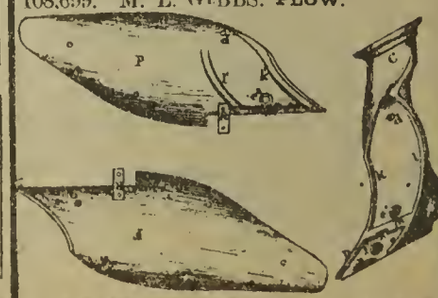
108,696. L. S. FILBERT. PAVEMENT.

108,697. L. T. FOLLANSBEE WOOD PAVEMENT.

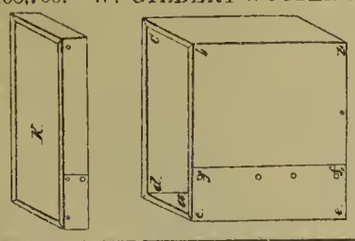


108,698. P. G. GARDINER RAILWAY CAR COUPLER AND BUFFER

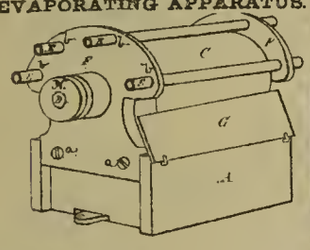
108,699. M. L. GIBBS. PLOW.



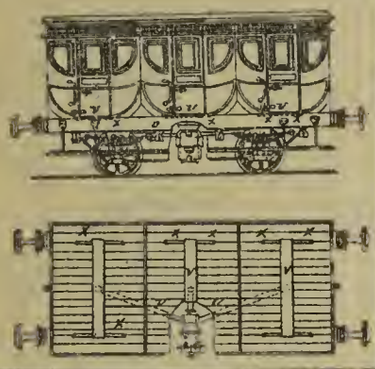
108,700. W. GILBERT WOODEN BOX.



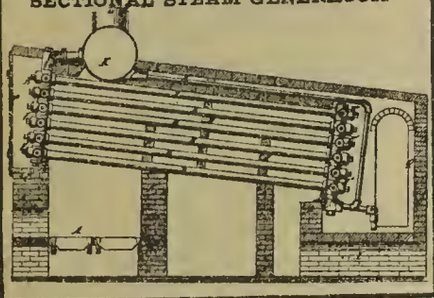
108,701. S. D. GILSON. EVAPORATING APPARATUS.



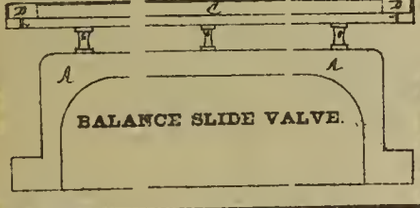
108,702. P. GRANDJEAN RAILROAD CAR HEATER



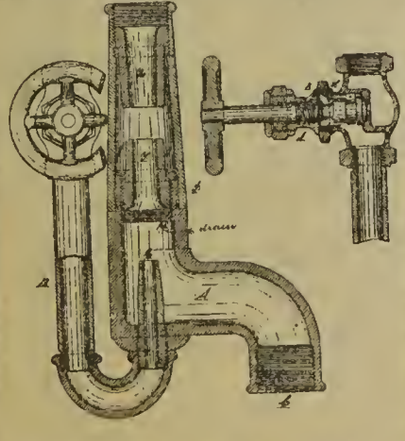
108,703. J. GRIFFETH AND G. W. WUNDRAM SECTIONAL STEAM GENERATOR.



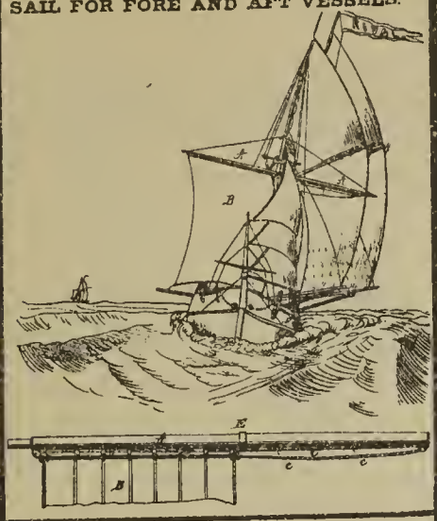
108,704. T. J. HAMER AND M. WALLS BALANCE SLIDE VALVE.



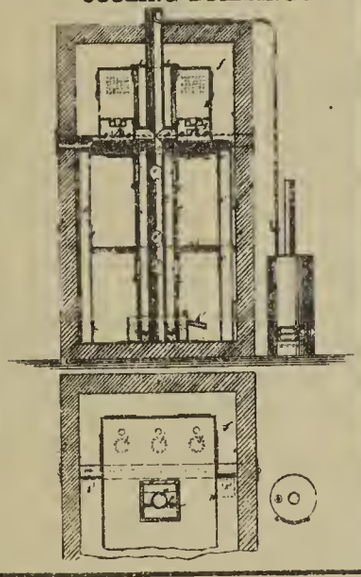
108,705. G. HIBBARD PUMP.



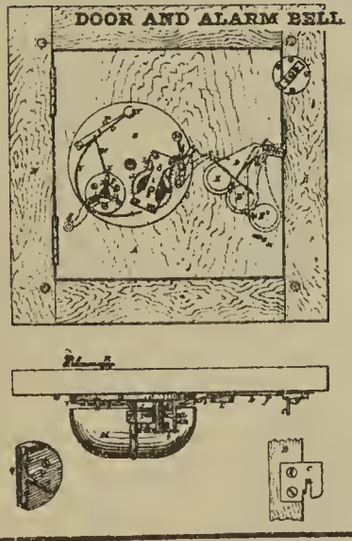
108,706. A. A. HOLLING SQUARE SAIL FOR FORE AND AFT VESSELS.



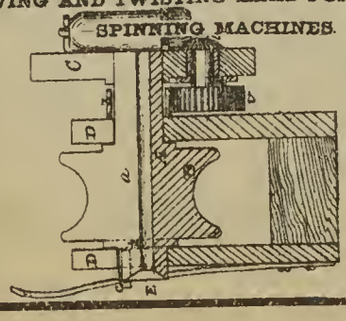
108,707. T. KRAUSCH COOLING BUILDINGS



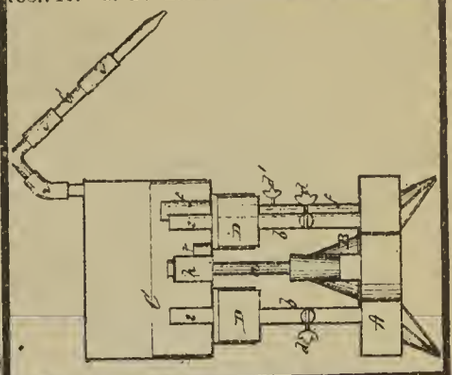
108,708. G. O. LACKEY. DOOR AND ALARM BELL.



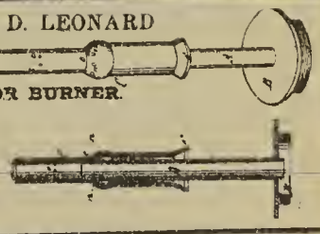
108,709. S. W. LAWRENCE, P. WALDEN AND J. W. HUNTOON DRAWING AND TWISTING HEAD FOR SPINNING MACHINES.



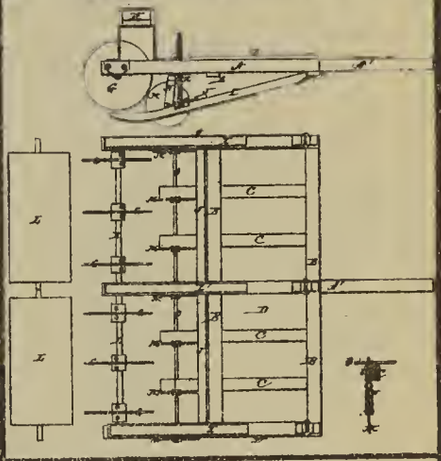
108,710. I. P. LEETE STEAM ATOMIZER



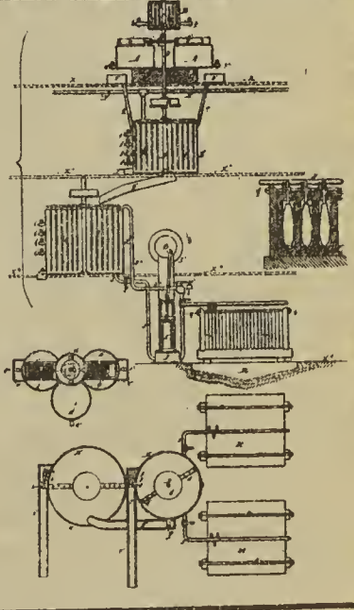
108,711. D. LEONARD VAPOR BURNER.



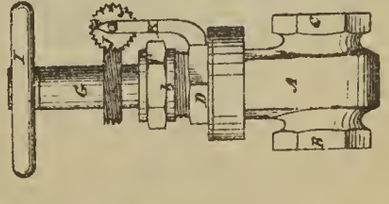
108,712. W. LESLIE COMBINED STALK AND WEED CUTTER AND LAND ROLLER.



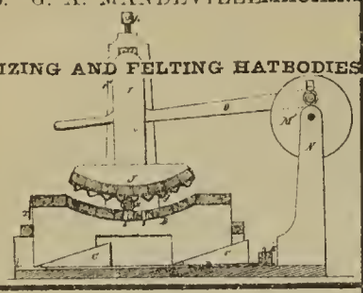
108,713. J. LUCAS. APPARATUS FOR PREPARING LAKES AND COLORS.



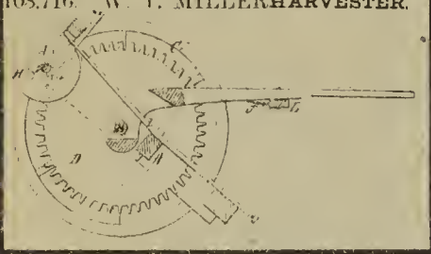
108,714. H. G. LUDLOW AND J. STONE. STOP VALVE.



108,715. G. A. MANDEVILLE MACHINE FOR SIZING AND FELTING HATBODIES



108,716. W. T. MILLER HARVESTER.



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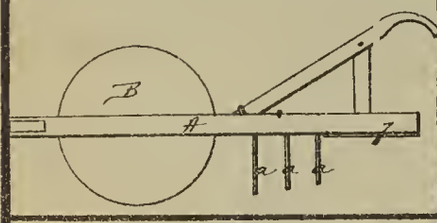
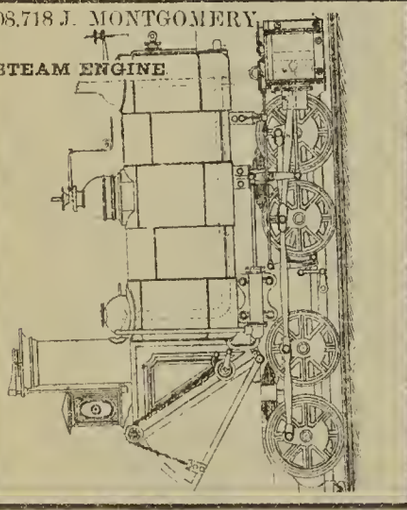
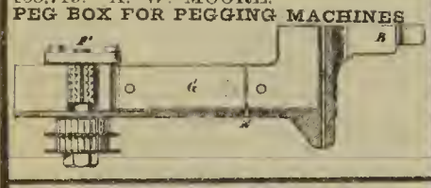


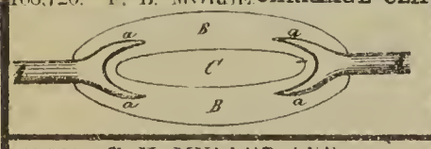
108,718 J. MONTGOMERY STEAM ENGINE.



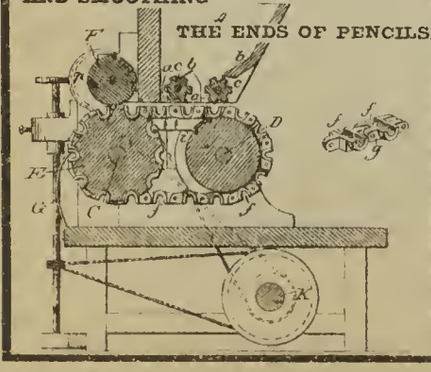
108,719. A. W. MOORE. PEG BOX FOR PEGGING MACHINES



108,720. F. B. MORSE CARRIAGE CLIP

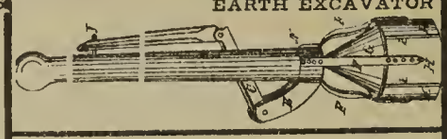


108,721. T. H. MULLER AND H. C. BENSON MACHINE FOR CUTTING AND SMOOTHING THE ENDS OF PENCILS.



108,722. E. D. MURFEY. MATERIAL FOR JOURNALS AND BEARINGS.

108,723 J. W. MYERS EARTH EXCAVATOR



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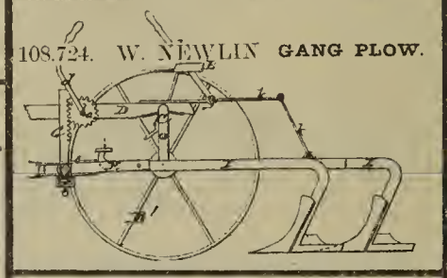
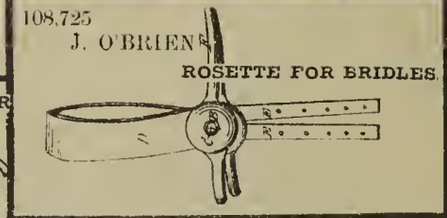
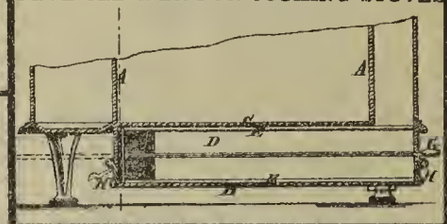


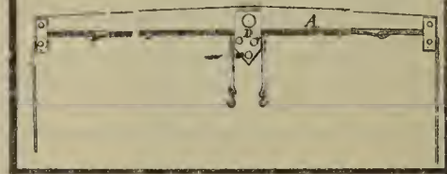
108,725 J. O'BRIEN ROSETTE FOR BRIDLES.



108,726. H. L. PALMER FLUE CLEANER FOR COOKING STOVES



108,727. W. M. PERKINS AND T. F. VANDERGIFT DRAFT EQUALIZER.



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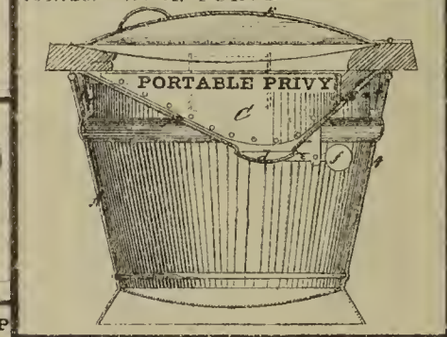
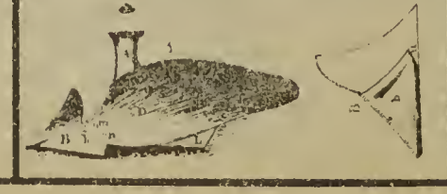
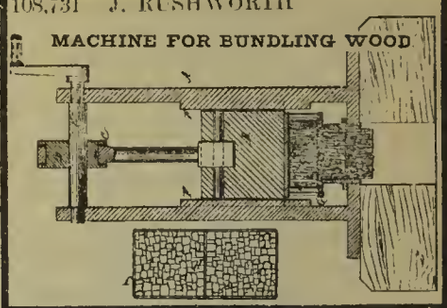


108,729. H. B. RAMSEY, BEDSTEAD.

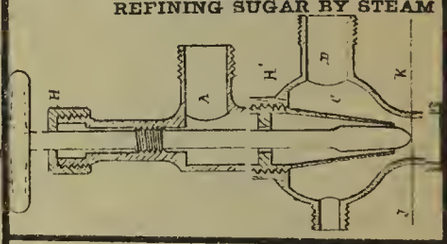
108,730. G. W. REAM PLOW.



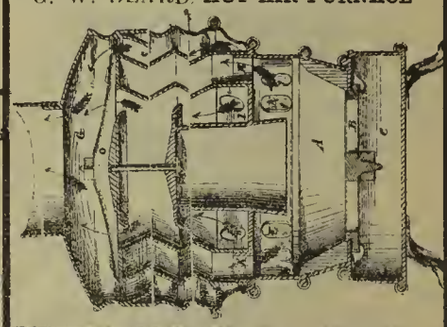
108,731 J. RUSHWORTH MACHINE FOR BUNDLING WOOD



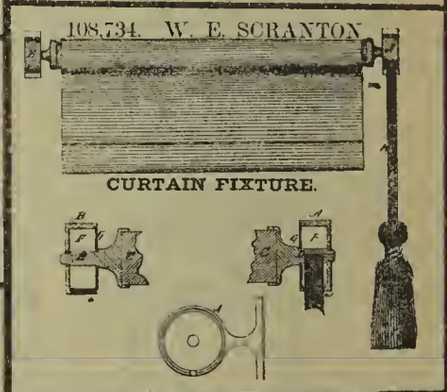
108,732. F. SCHLEIFER REFINING SUGAR BY STEAM



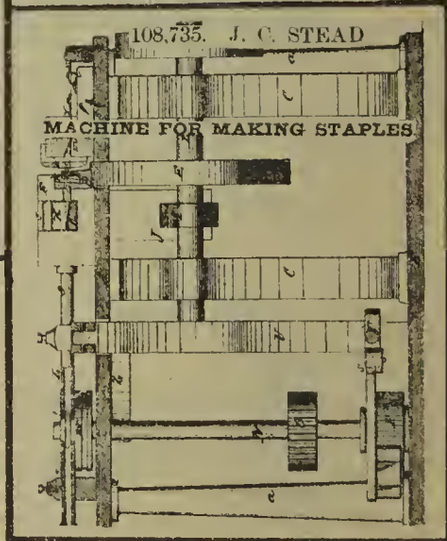
108,733. S. B. SEXTON AND G. W. BEARD. HOT AIR FURNACE



108,734. W. E. SCRANTON CURTAIN FIXTURE.



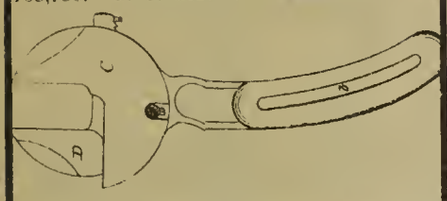
108,735. J. C. STEAD MACHINE FOR MAKING STAPLES.



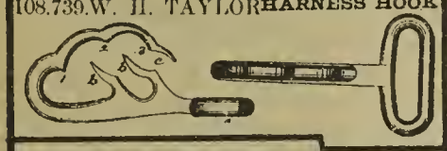
108,736. D. STUART AND L. BRIDGE COOKING RANGE.

108,737 H. G. SUPLEE. NEEDLE.

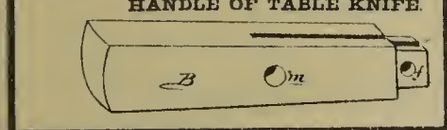
108,738. G. C. TAFT. WRENCH.



108,739. W. H. TAYLOR HARNESS HOOK



108,740. J. A. WHITE HANDLE OF TABLE KNIFE.



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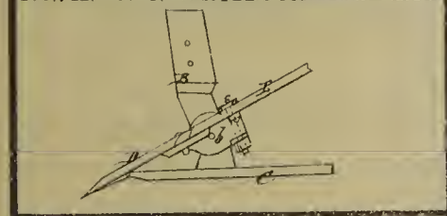
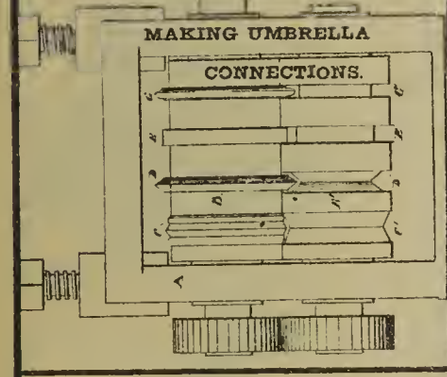
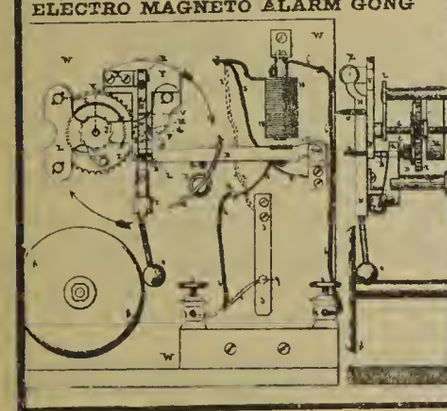


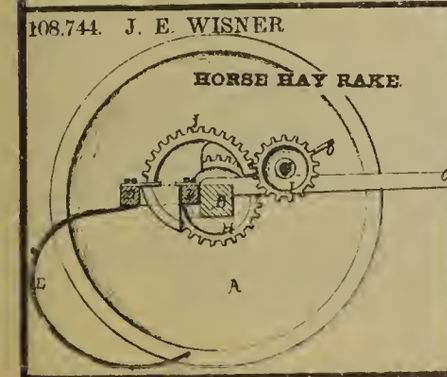
108,742. E. WIGHT MACHINE FOR MAKING UMBRELLA CONNECTIONS.



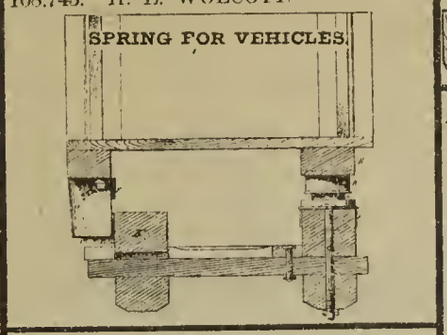
108,743. C. WILLIAMS, Jr. ELECTRO MAGNETO ALARM GONG



108,744. J. E. WISNER. HORSE HAY RAKE.



108,745. H. E. WOLCOTT. SPRING FOR VEHICLES.



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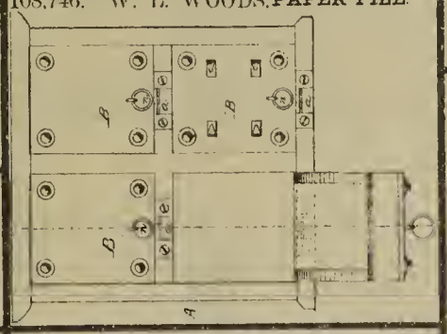

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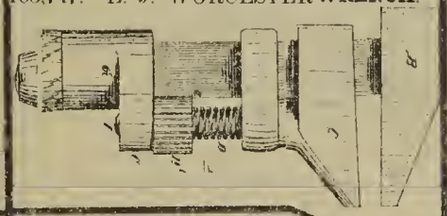
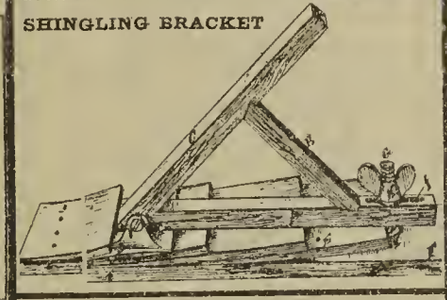
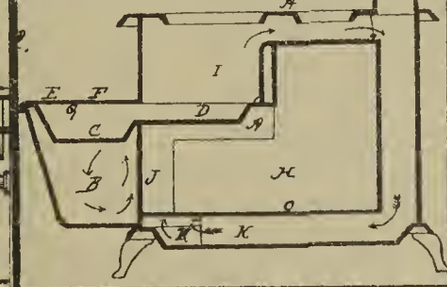


108,748. E. J. WORCESTER. SHINGLING BRACKET

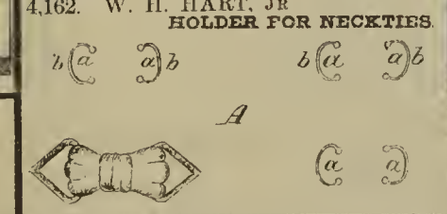


4,160. L. FITZMAIER. METHOD OF ORNAMENTING TIN &c

4,161. C. O. GREENE. WATER RESERVOIR FOR COOKING STOVES

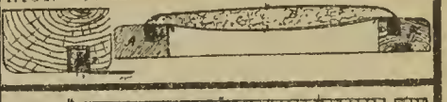


4,162. W. H. HART, Jr HOLDER FOR NECKTIES.

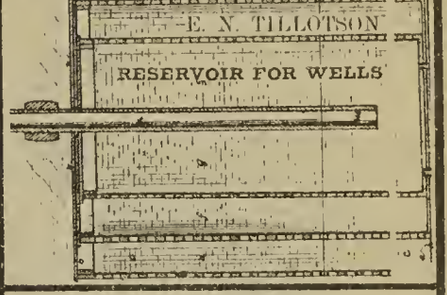


4,163. W. H. HART, Jr BOX FOR PACKING NECKTIES.

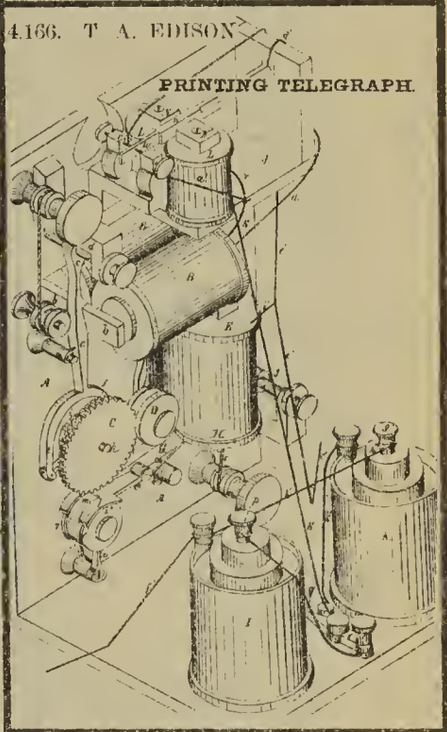
4,164. O. A. BINGHAM CHAIR SEAT.



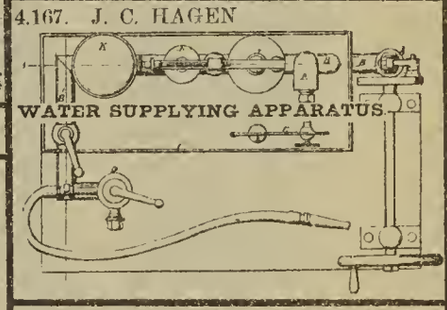
4,165. R. H. DEWEY AND E. N. TILLOTSON RESERVOIR FOR WELLS



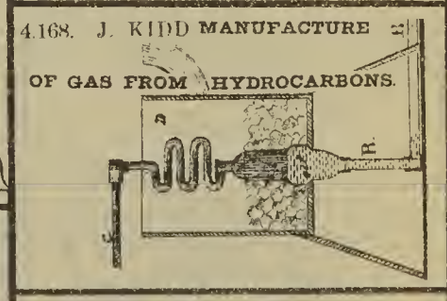
4,166. T. A. EDISON PRINTING TELEGRAPH.



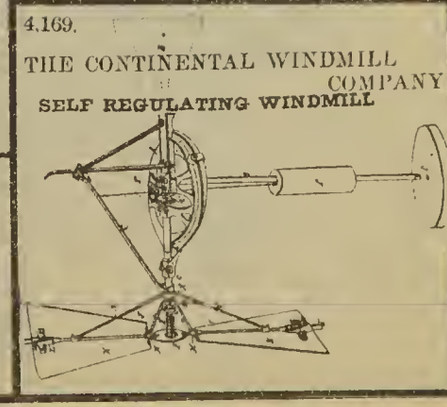
4,167. J. C. HAGEN WATER SUPPLYING APPARATUS.



4,168. J. KIDD MANUFACTURE OF GAS FROM HYDROCARBONS.



4,169. THE CONTINENTAL WINDMILL COMPANY SELF REGULATING WINDMILL



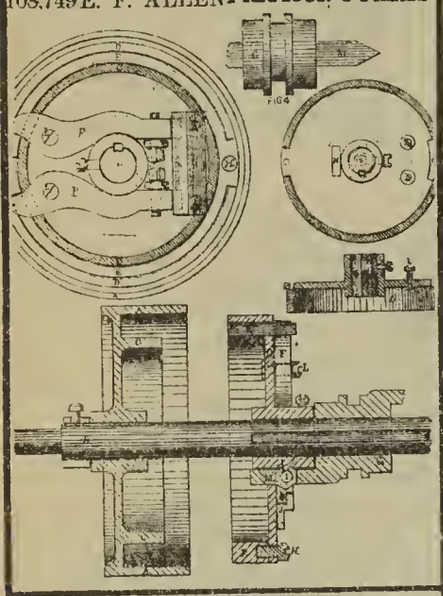
ILLUSTRATIONS OF PATENTS

ISSUED FROM

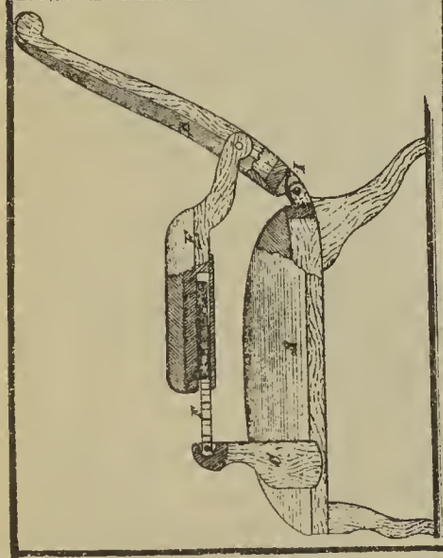
THE UNITED STATES PATENT OFFICE

NOVEMBER 1, 1870.

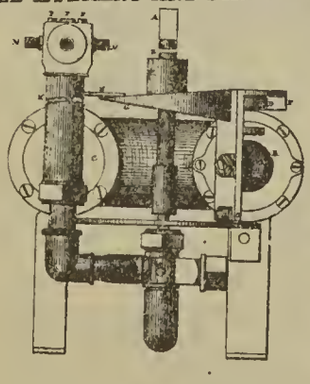
108,749 E. F. ALLEN FRICTION PULLEY



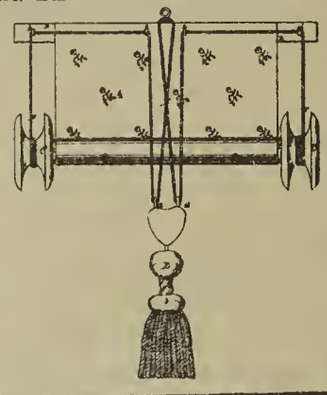
108,750 E. BARTELS RECLINING CHAIR



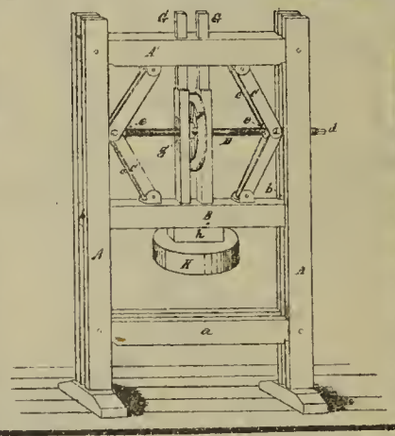
108,751. F. BAUSCHTLIKER
COMBINED HYDRANT AND FIRE PLUG



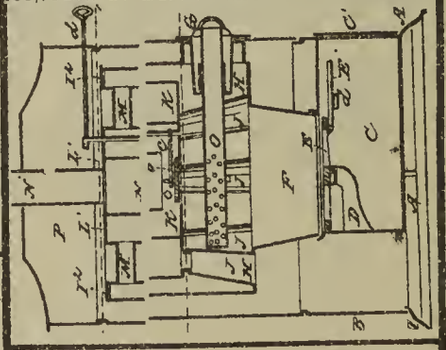
108,752. R. BEAL CURTAIN FIXTURE.



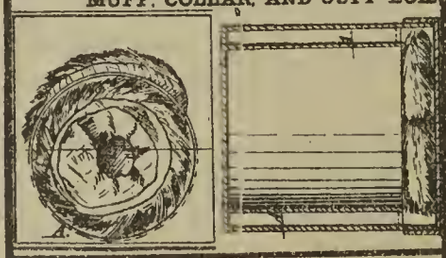
108,753. G. B. BOOMER, T. G. MORSE AND R. E. BOSCHERT CHEESE PRESS.



108,754 R. F. BROWN HOT AIR FURNACE

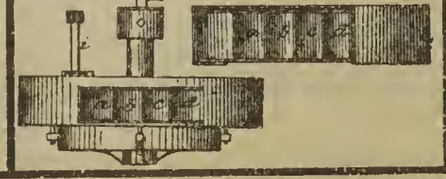


108,755. J. C. BUDD
MUFF, COLLAR, AND CUFF BOX.

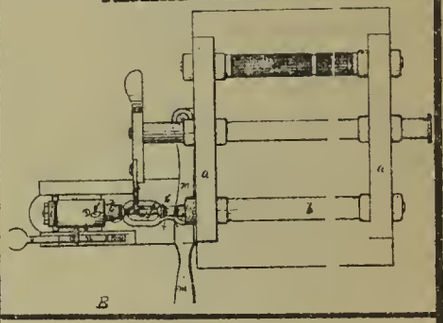


108,756. H. H. CAPAMAGIAN
COMPOUND FOR TREATING WOOL.

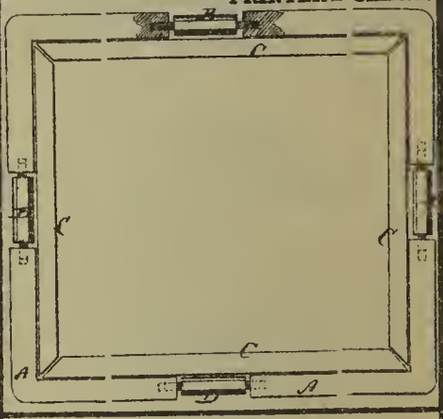
108,757. J. T. CASE WATER WHEEL.



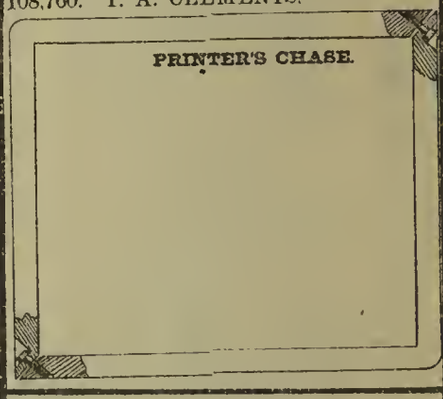
108,758. D. M. CHURCH
THREAD WINDING MACHINE.



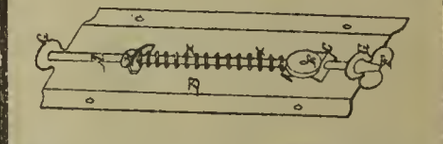
108,759. T. A. CLEMENTS.
PRINTER'S CHASE.



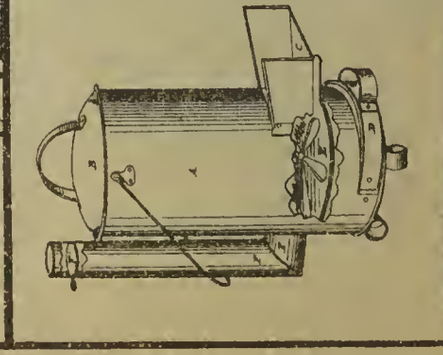
108,760. T. A. CLEMENTS.
PRINTER'S CHASE.



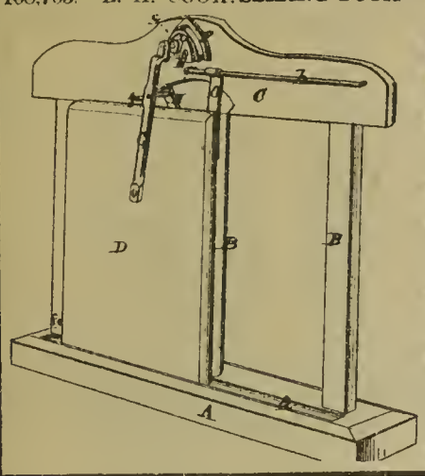
108,761. W. C. CLOVER.
CURTAIN FIXTURE.



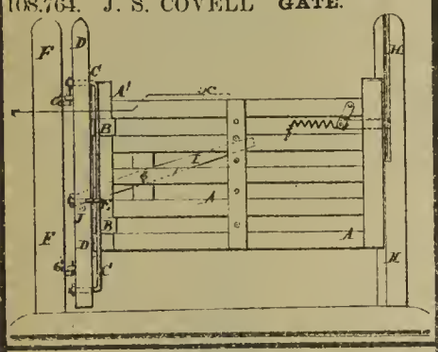
108,762. M. CONNER
TINSMITH'S FURNACE.



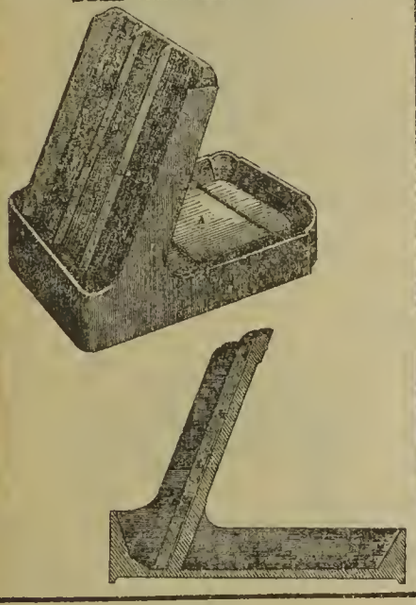
108,763. L. A. COOK. SLIDING DOOR.



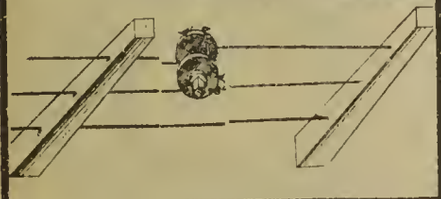
108,764. J. S. COVELL GATE.



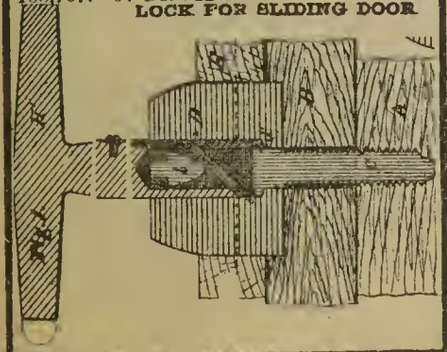
108,765. A. CRAWFORD
SOAP DISH AND BRUSH RACK.



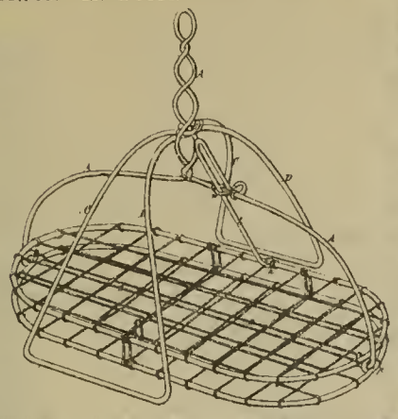
108,766. T. CROSBY
LINE AND WIRE TIGHTENER.



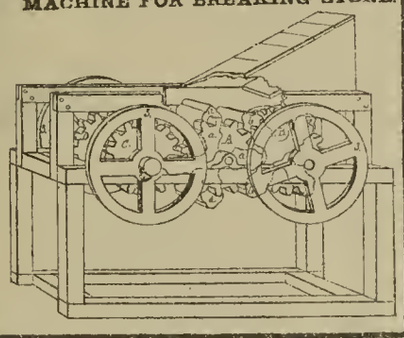
108,767. J. DAVIDSON
LOCK FOR SLIDING DOOR.



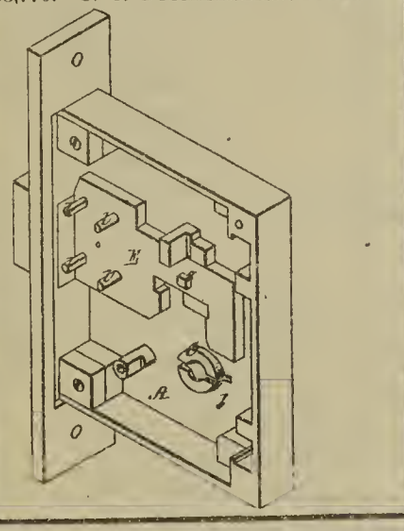
108,768. A. DICK. BROILER.



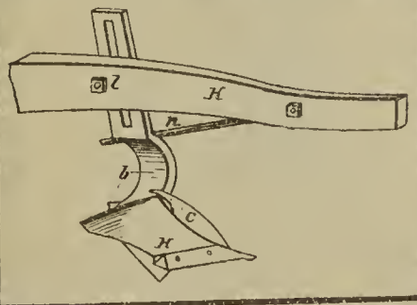
108,769. A. DIETZ.
MACHINE FOR BREAKING STONE.



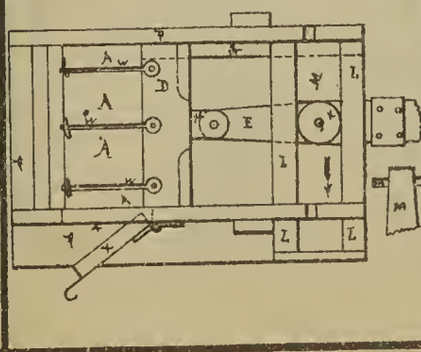
108,770. C. C. DICKERMAN. LOCK.



108,771. D. DILLENBACK
PLOW JOINTER.

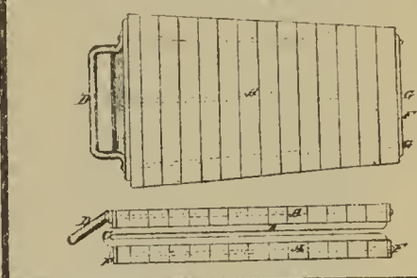


108,772. G. DUNCAN BALING PRESS.

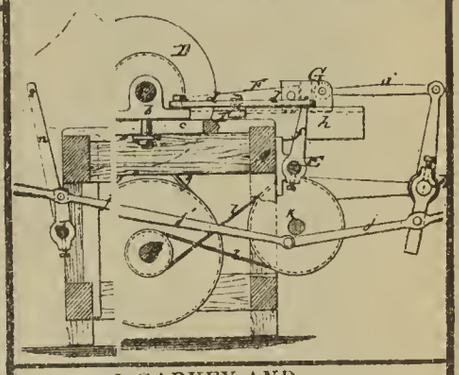


108,773 J. ELLINGWOOD FERMENTING
ALCOHOLIC LIQUORS FROM GRAIN.

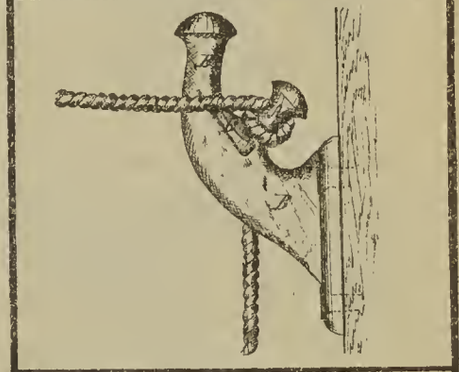
108,774 C. ESKRETT AND H. SEARLE
OIL CAKE ENVELOPE.



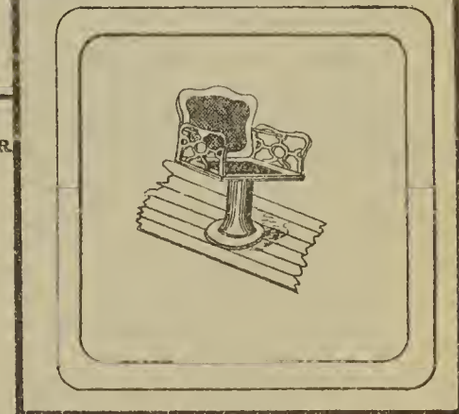
108,775. C. J. GARDNER
MACHINE FOR GRINDING SAW BLADES.



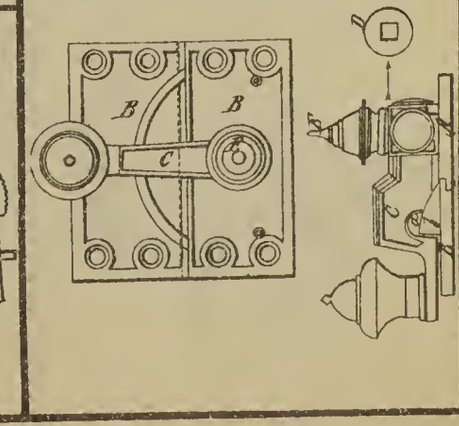
108,776. J. GARVEY AND
M. H. KIMBALL. CLOTHES LINE HOOK.



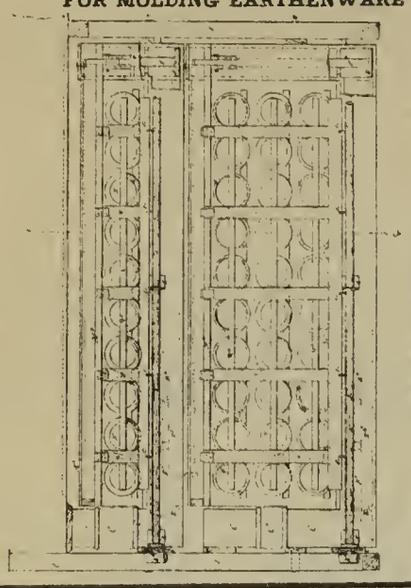
108,777. T. J. GIFFORD
SPRING SEAT FOR RAILWAY CARS.



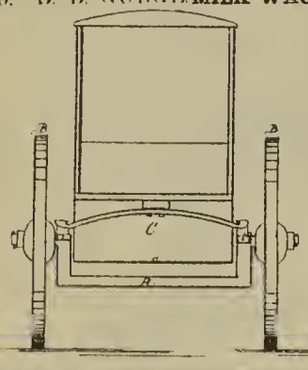
108,778. W. GORMAN SASH FASTENER.



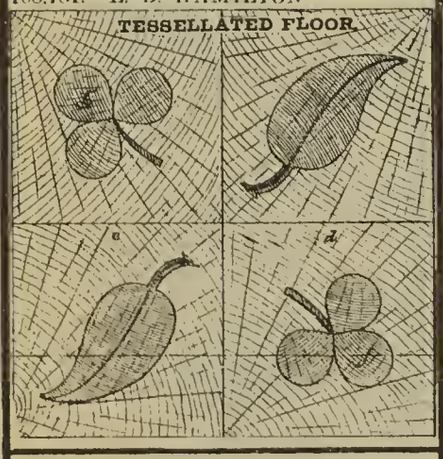
108,779. T. G. GREEN MACHINE FOR MOLDING EARTHENWARE



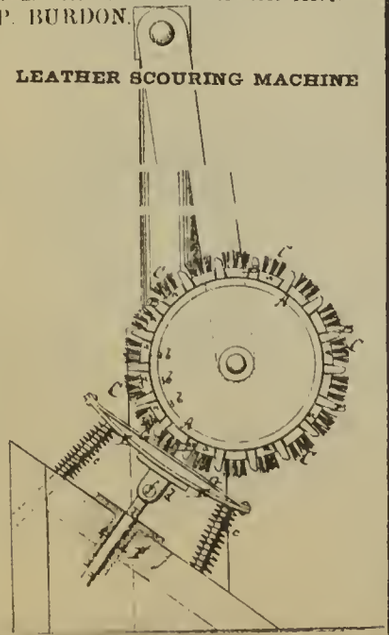
108,780. B. B. GUDGE. MILK WAGON.



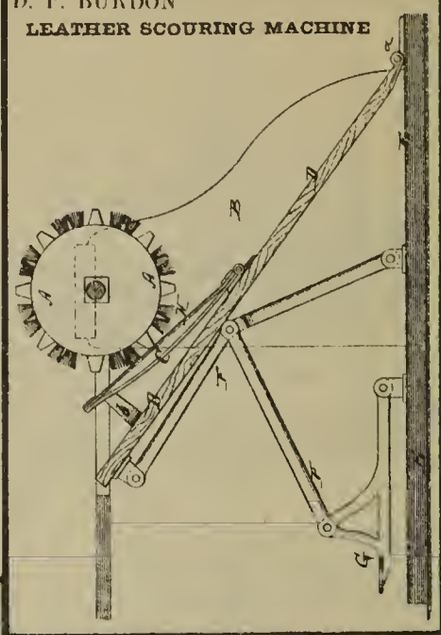
108,781. L. B. HAMILTON TESSELLATED FLOOR.



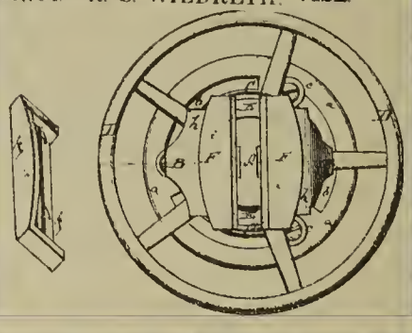
108,782. H. C. HAVEMEYER AND D. P. BURDON. LEATHER SCOURING MACHINE



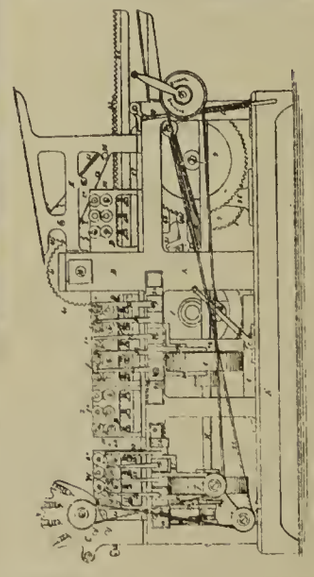
108,783. H. C. HAVEMEYER AND D. P. BURDON LEATHER SCOURING MACHINE



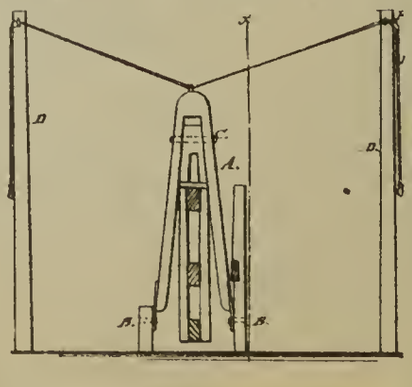
108,784. R. S. HILDRETH. VISE.



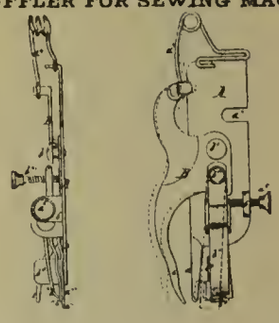
108,785R M. HOE AND S. D. TUCKER PRINTING PRESS.



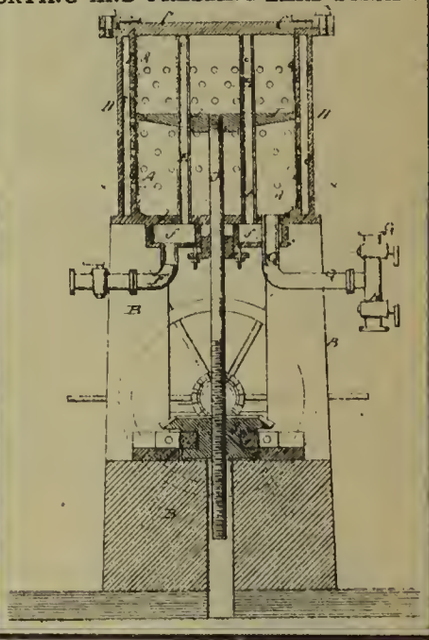
108,786. W. C. HOOKER. GATE.



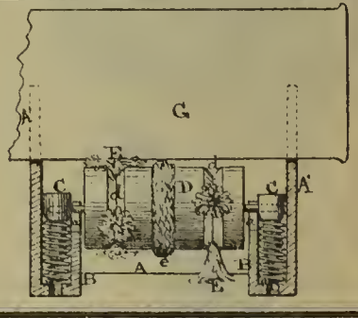
108,787. C. W. HOWARD RUFFLER FOR SEWING MACHINES



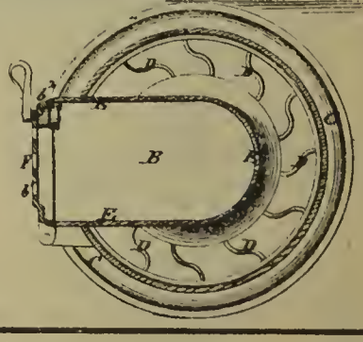
108,788 A. K. HOWE. APPARATUS FOR DRYING AND PRESSING LARD SCRAPS.



108,789. C. HYATT RAILWAY CAR AXLE LUBRICATOR

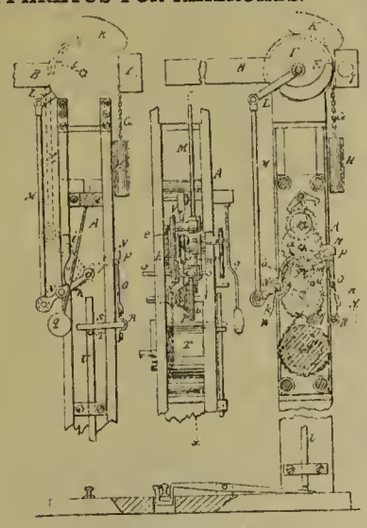


108,790 W. JAMES AND W. JAMES, JR HOT AIR FURNACE

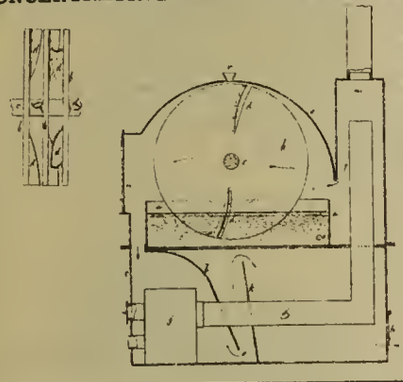


108,791 G. A. JENKS AND J. J. FAWCETT STREET AND STATION INDICATOR

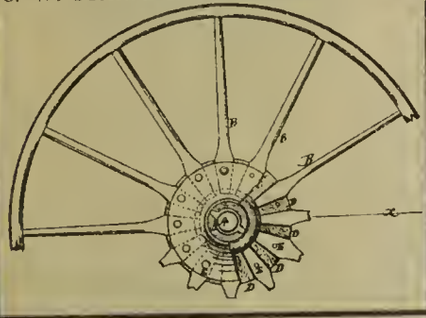
108,792. J. G. JOHNSON. TIME SIGNALING APPARATUS FOR RAILROADS.



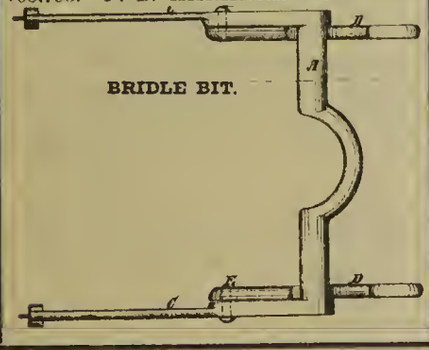
108,793. T. W. JOHNSON, JR., AND A. W. GOODELL. APPARATUS FOR EVAPORATING AND CONCENTRATING BARK EXTRACTS, &c.



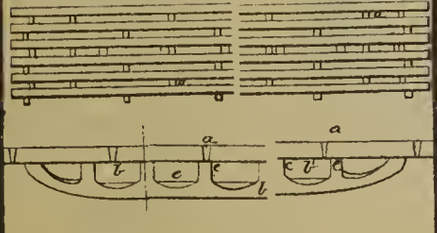
108,794. T. M. JONES AND C. W. FILLMORE. CARRIAGE WHEEL.



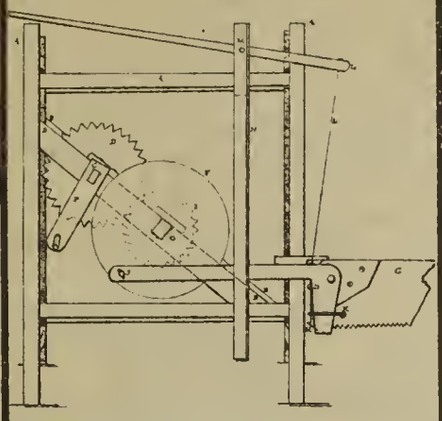
108,795. F. B. KALKBRENNER. BRIDLE BIT.



108,796. W. KEARNEY. GRATE BAR AND BEARER.

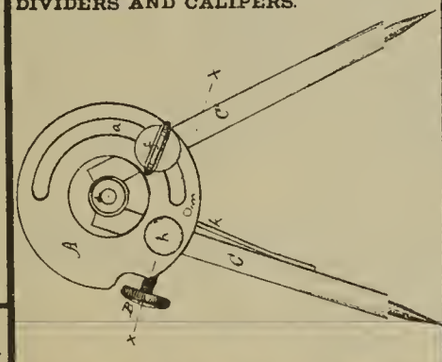


108,797. G. W. KEARNS. SAWING MACHINE.

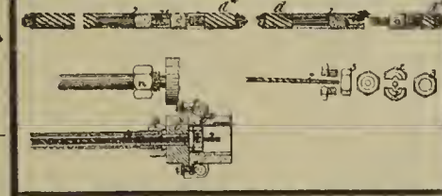


108,798. H. KEENAN. DRIP CATCH FOR UMBRELLAS.

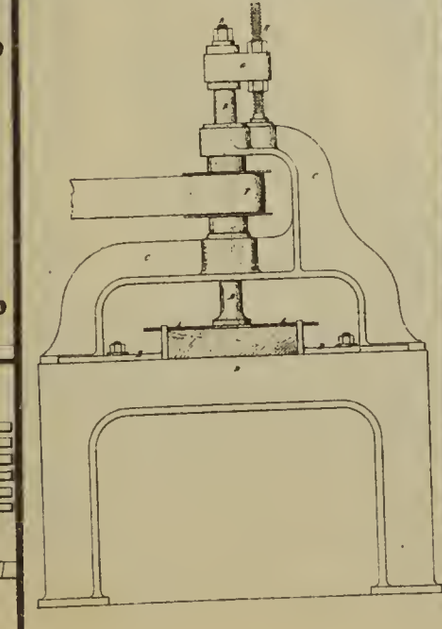
108,799. G. W. LANE. DIVIDERS AND CALIPERS.



108,800. G. LEACH. SHIPPING AND UNSHIPPING SCREW PROPELLERS.

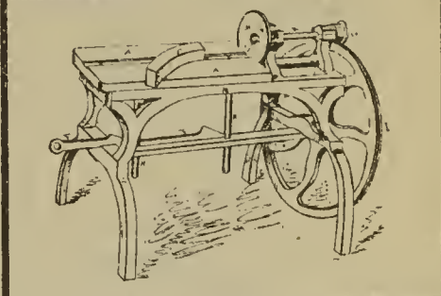


108,801. T. LLEWELLYN. PLANING MACHINE.

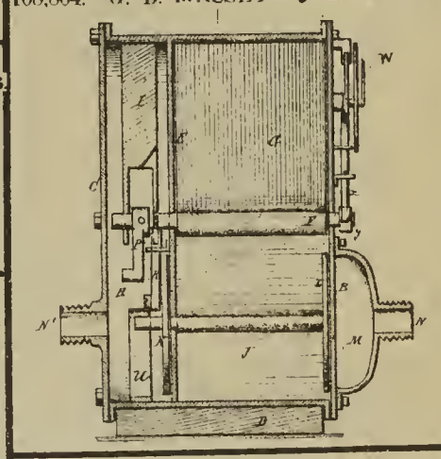


108,802. C. S. LYNCH. FIX FOR PUDDLING FURNACES.

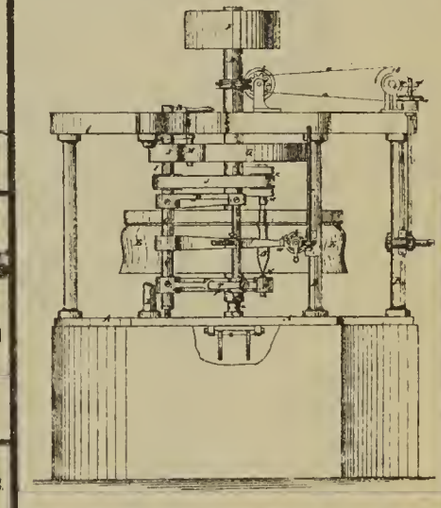
108,803. J. B. MARGESON. MACHINE FOR JOINTING STAIR RAILS.



108,804. G. B. MASSEY. LIQUID METER.

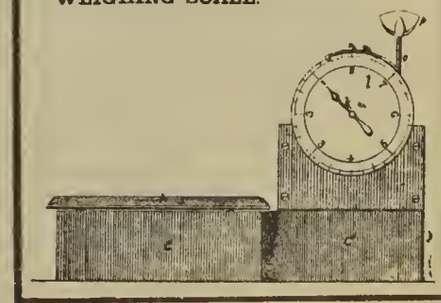


108,805. G. R. MATHER. APPARATUS FOR GIVING FORM TO WOOD.



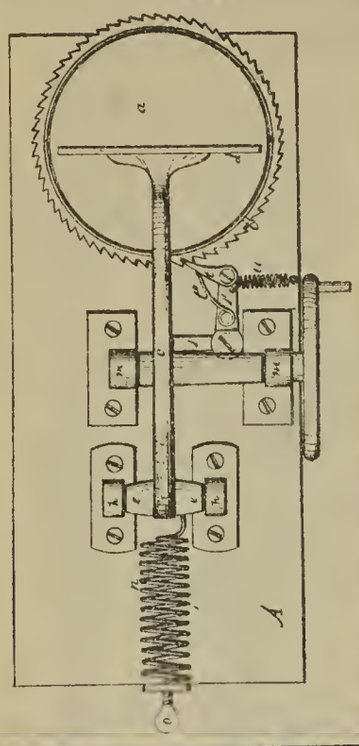
108,806. U. K. MAYO. MANUFACTURE OF GOLD FOIL FORDENTAL PURPOSES.

108,807. W. H. McCORMICK. WEIGHING SCALE.

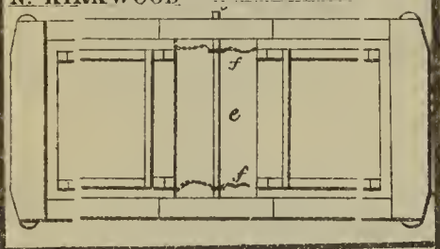


108,808. H. MEARNS. BLEACHING TOBACCO.

108,809. G. H. MELLEN
MEAT CHOPPER.

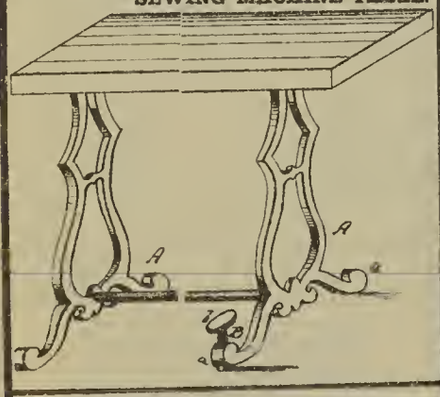


108,810. W. MERRINGTON AND N. KIRKWOOD DUMPING CAR.

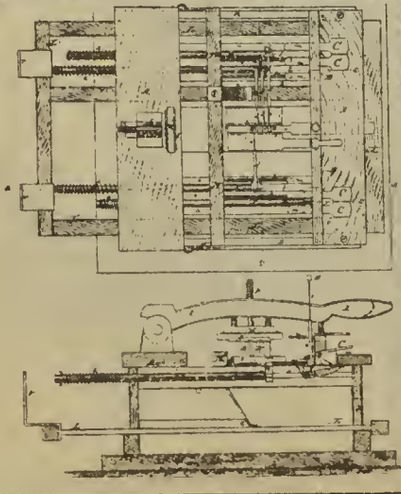


108,811. J. J. MILLS AND W. PERRY
MEDICINE OR PAIN REMEDY.

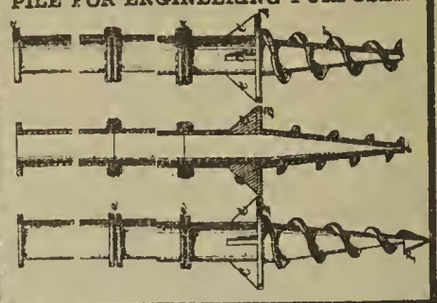
108,812. E. L. MORGAN
SEWING MACHINE TABLE.



108,813 W. T. MORGANS MACHINE FOR PREPARING STEREOTYPE MATRICES.

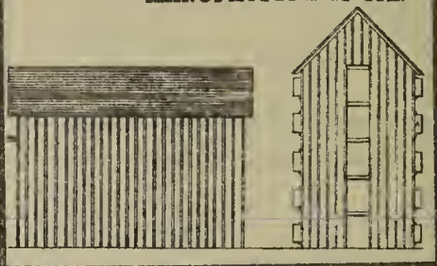


108,814. T. W. H. MOSELEY
PILE FOR ENGINEERING PURPOSES.

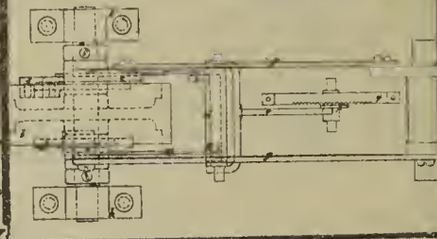


108,815 N. NELSON SCREW CUTTING DIE

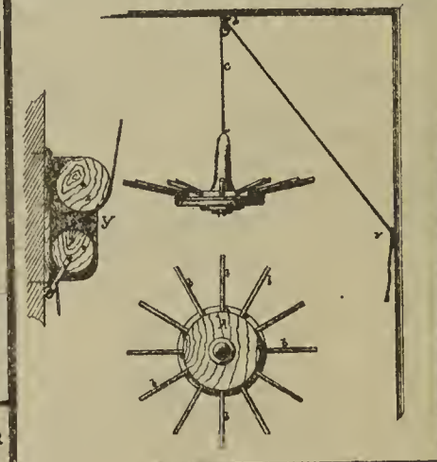
108,816 S. J. NEWSHAM.
W. H. HAINES AND W. S. HENSON
MANUFACTURE OF ICE.



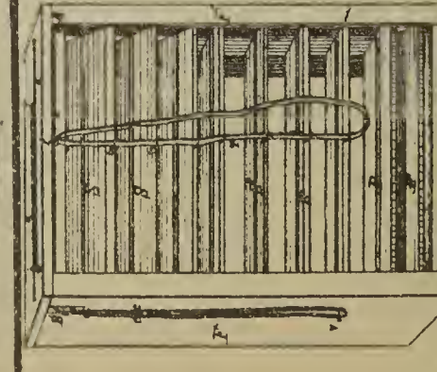
108,817. E. NICHOLSON
CLUTCH GEARING.



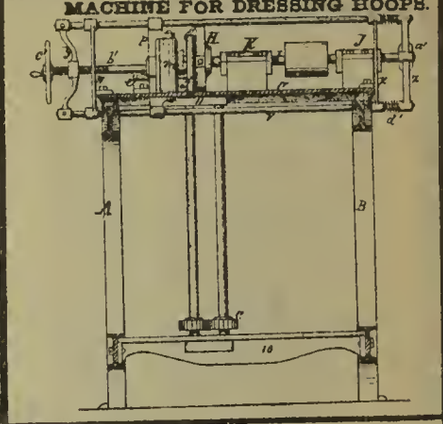
108,818. A. O'DELL. CLOTHES DRIER.



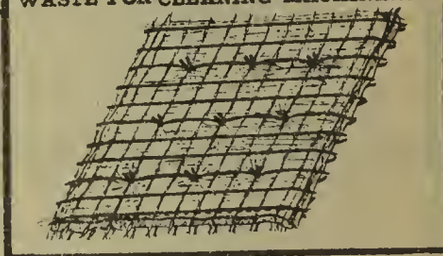
108,819. F. R. OSGOOD
FOLDING WINDOW BLIND.



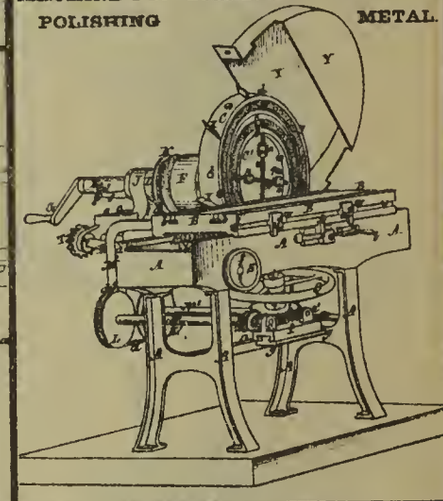
108,820. J. PENNEY
MACHINE FOR DRESSING HOOPS.



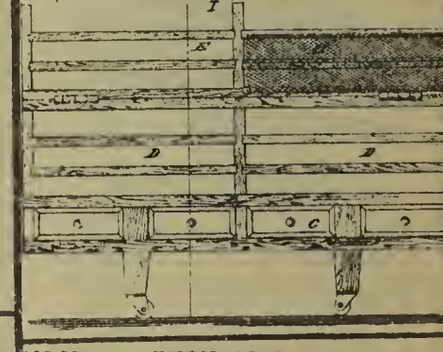
108,821. A. PEPLE. PREPARING COTTON WASTE FOR CLEANING MACHINERY.



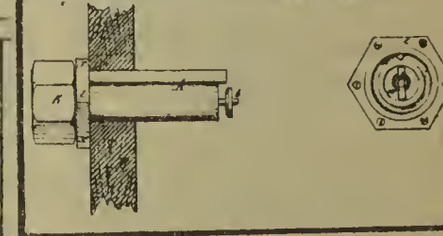
108,822 J. H. PITKIN AND J. S. LANE.
MACHINE FOR GRINDING AND POLISHING METAL.



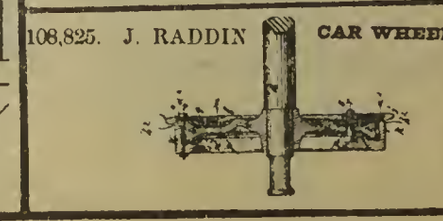
108,823. R. POOLE. STORE SHELVING.



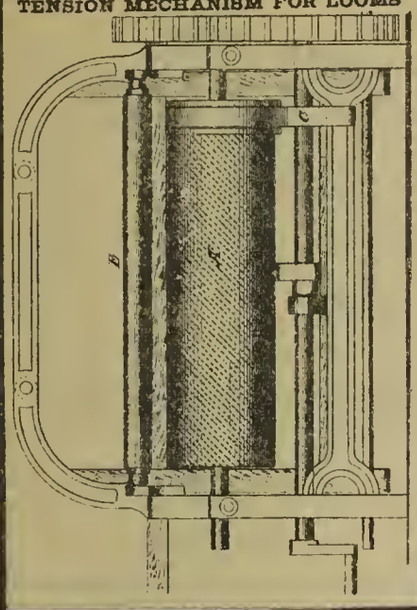
108,824. A. PUTNAM, JR. FAUCET.



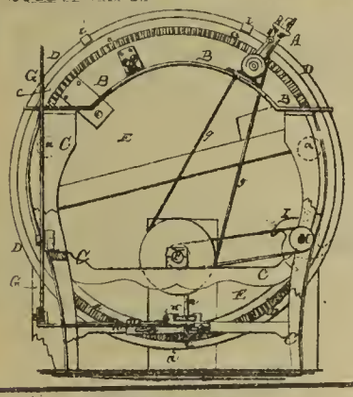
108,825. J. RADDIN CAR WHEEL.



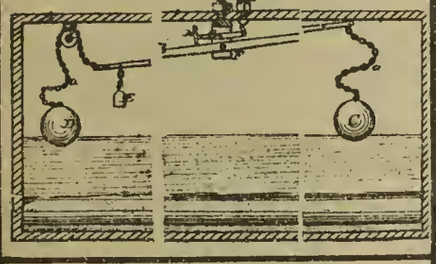
108,826. J. F. RANDALL WARP TENSION MECHANISM FOR LOOMS



108,827. W. A. RAYER AND W. STILLWELL, SEWING MACHINE.

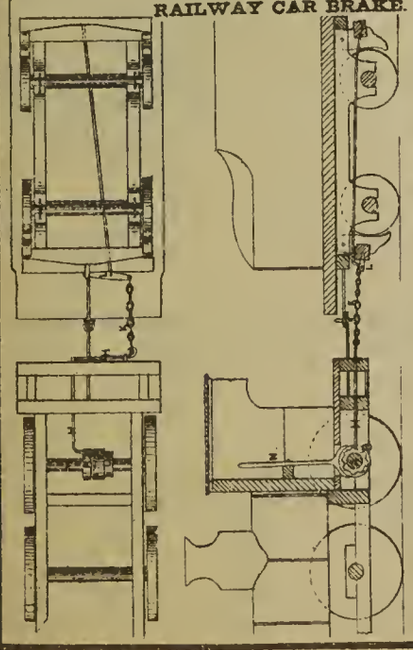


108,828. F. RAYNSFORD LOW WATER INDICATOR

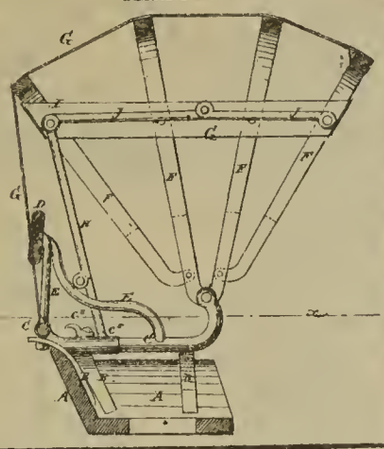


108,829. J. RESTLE. TRANSPARENT VARNISH.

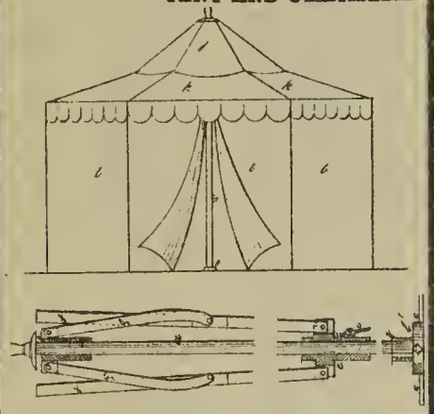
108,830. I. L. G. RICE. RAILWAY CAR BRAKE.



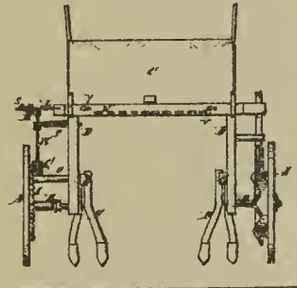
108,831. N. B. RICHARDSON CARRIAGE TOP FIXTURE.



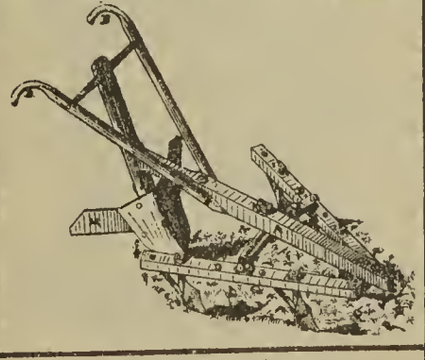
108,832. J. AND G. RITCHIE. TENT AND UMBRELLA.



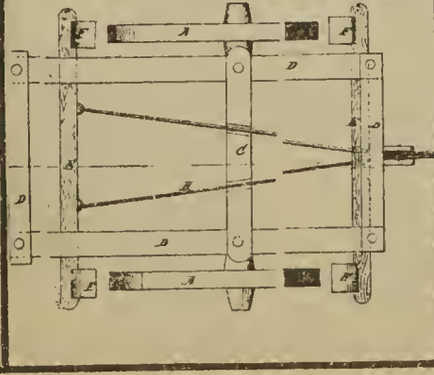
108,833 R. I. ROBESON AND W. NASH COMBINED CULTIVATOR AND SEEDER



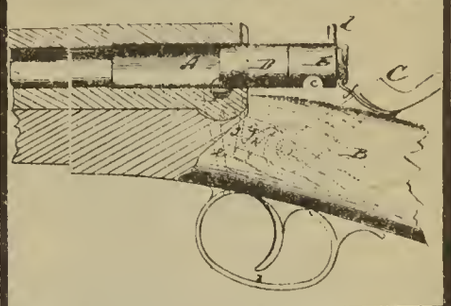
108,834. E. G. AND A. D. ROWELL J. R. RICE, AND S. M. SEELEY SHOVEL PLOW AND CULTIVATOR



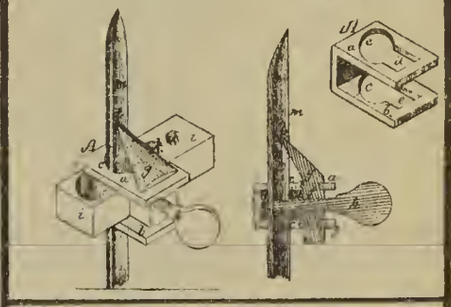
108,835. D. J. RUNDELL. WAGON BRAKE.



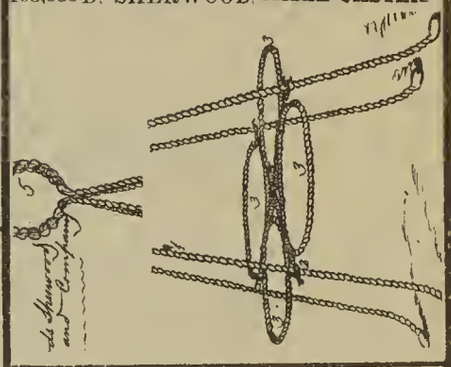
108,836. P. SCHULER BREECH LOADING FIRE ARM.



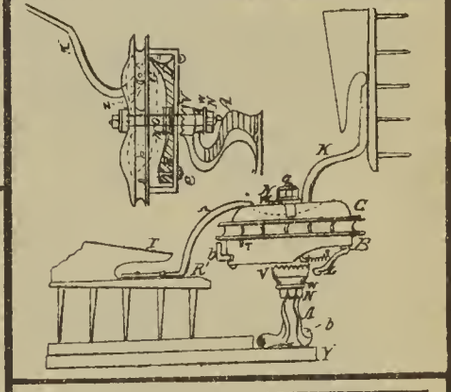
108,837. W. B. SHEDD, COUNTERSINK.



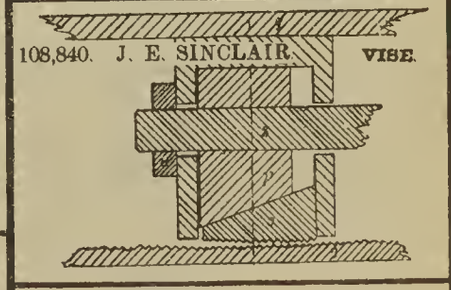
108,838 D. SHERWOOD, TABLE CASTER.



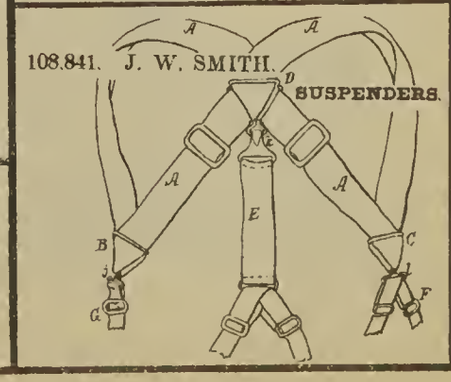
108,839 D. B. SHIRK HARVESTER RAKE.



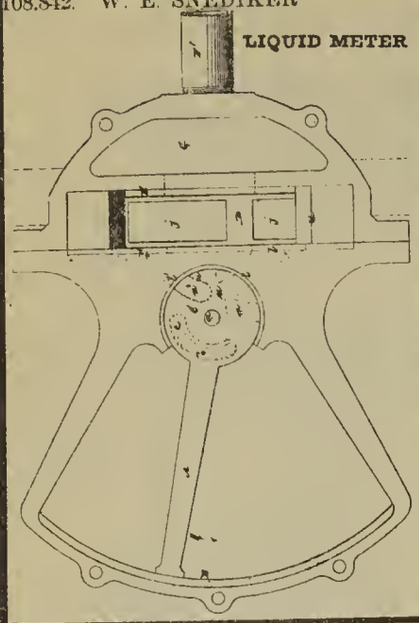
108,840. J. E. SINCLAIR. VISE.



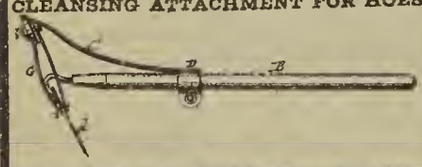
108,841. J. W. SMITH. SUSPENDERS.



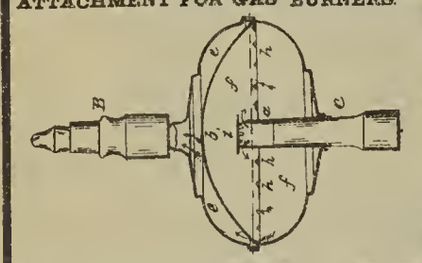
108,842. W. E. SNEDIKER LIQUID METER



108,843. R. R. AND H. T. SPEDDEN CLEANSING ATTACHMENT FOR HOES.



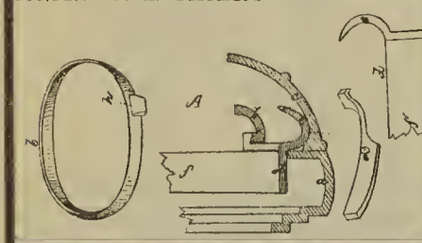
108,844. J. H. STEINER CARBURETING ATTACHMENT FOR GAS BURNERS.



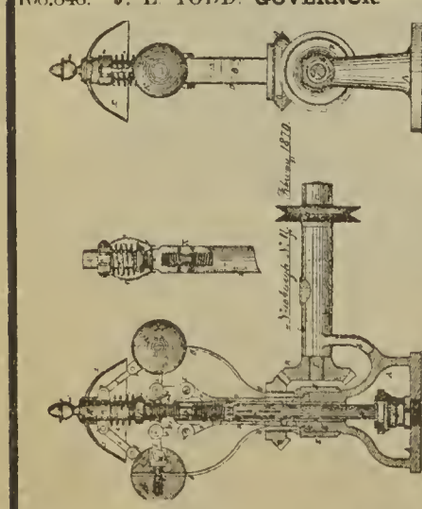
108,845. W. M. TANDY COMPOUND FOR CLEANSING AND PRESERVING THE TEETH AND GUMS

108,846. D. H. TAYLOR FINISHING AND BLEACHING HANDLES. &c

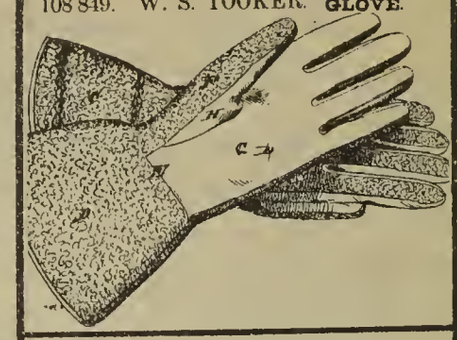
108,847. C. L. THIERY WATCH CASE.



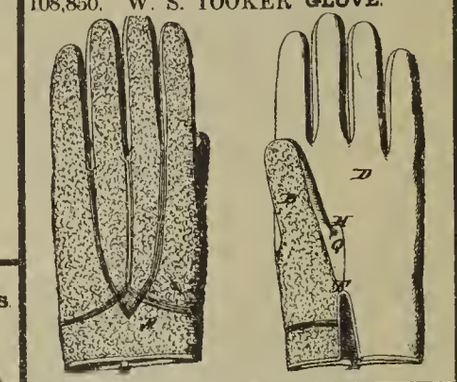
108,848. J. L. TODD. GOVERNOR.



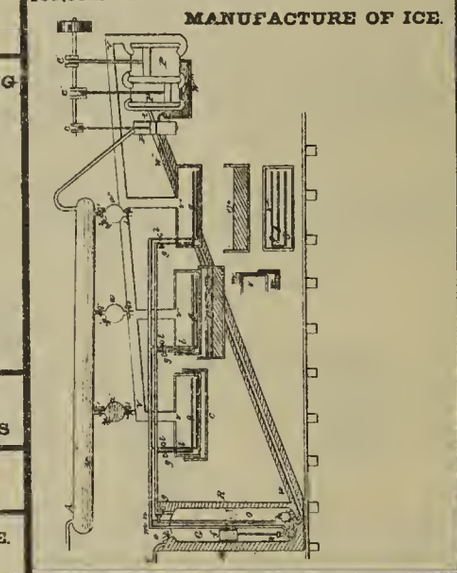
108,849. W. S. TOOKER. GLOVE.



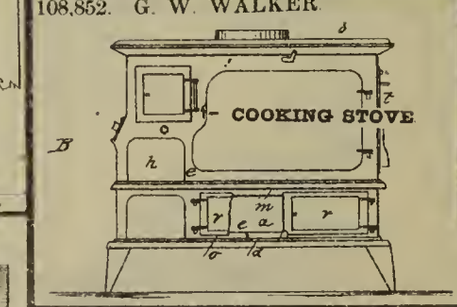
108,850. W. S. TOOKER GLOVE.



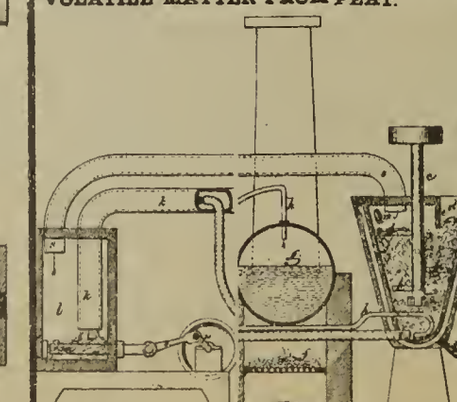
108,851. P. H. VANDER WEYDE MANUFACTURE OF ICE.



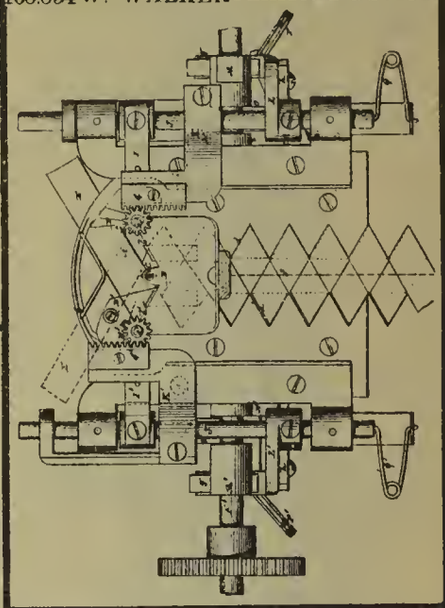
108,852. G. W. WALKER COOKING STOVE



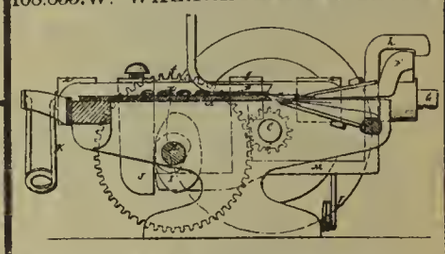
108,853. T. G. WALKER EXPELLING VOLATILE MATTER FROM PEAT.



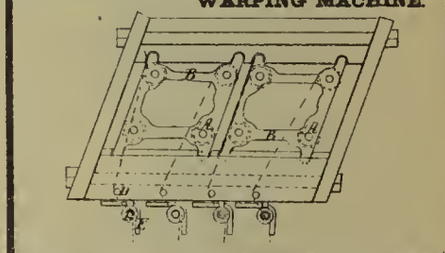
108,854 W. WALKER PLAITING DEVICE.



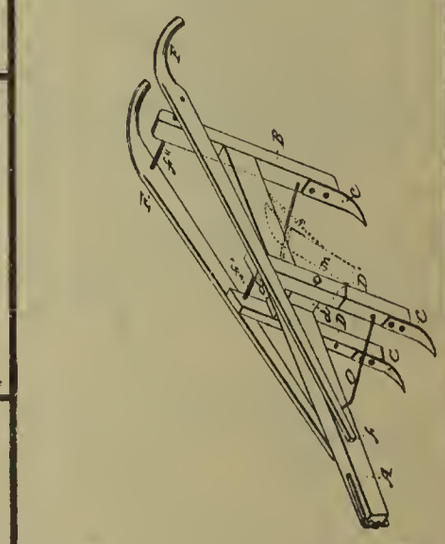
108,855. W. WALKER PLAITING DEVICE.



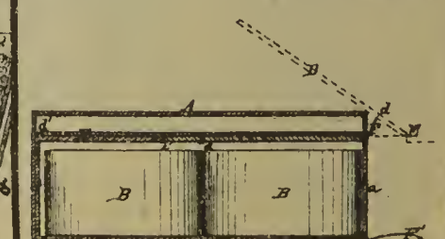
108,856. J. AND T. WALMSLEY. WARPING MACHINE.



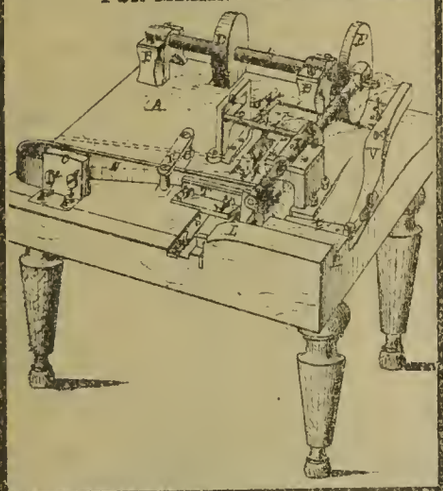
108,857. J. A. WALTER AND E. BUSHMAN CORN PLOW.



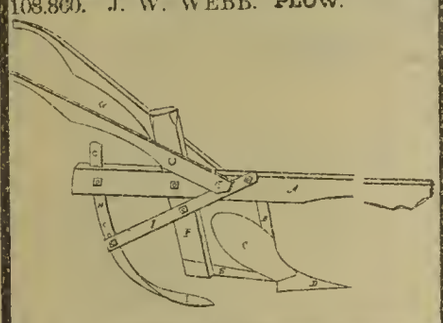
108,858. S. W. H. WARD TOILET BOX.



108,859. R. H. WATSON MACHINE FOR MAKING WOODEN PINS.

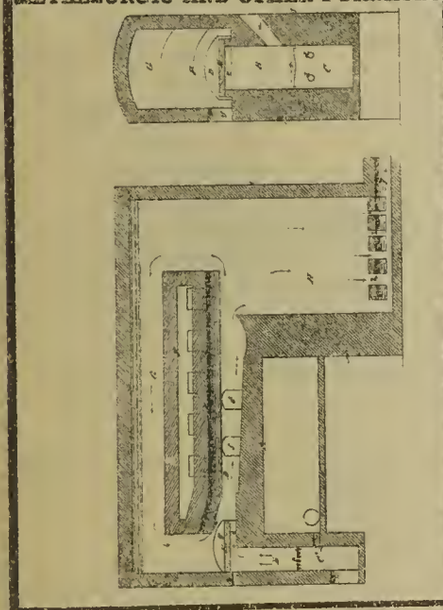


108,860. J. W. WEBB. PLOW.

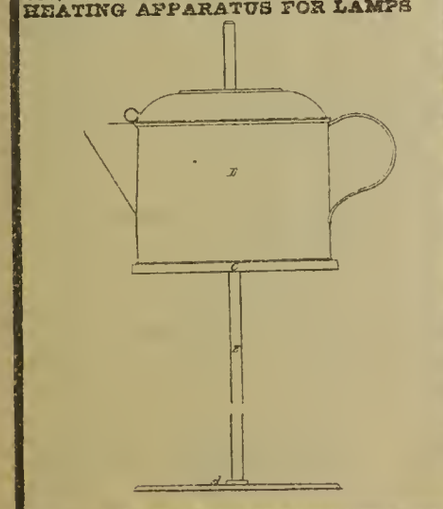


108,861. A. WEICHERT. MANUFACTURE OF SUGAR.

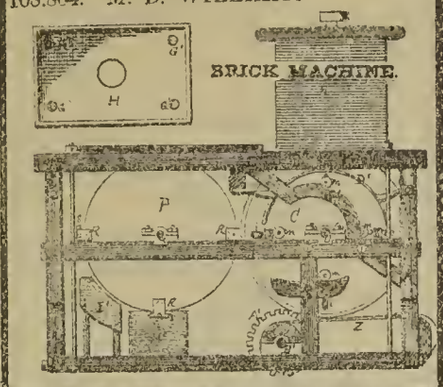
108,862. T. WEISS METALLURGIC AND OTHER FURNACES



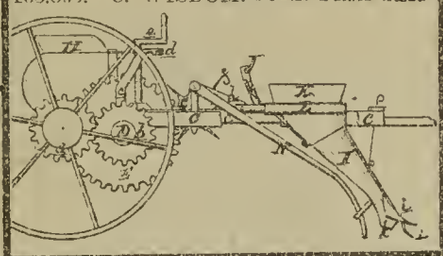
108,863. W. N. WHITE HEATING APPARATUS FOR LAMPS



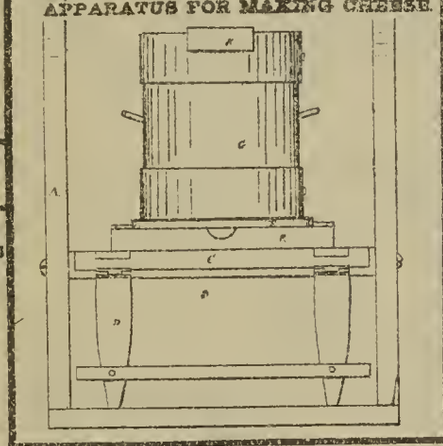
108,864. M. D. WILLIAMS BRICK MACHINE.



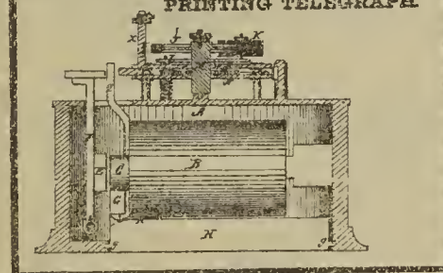
108,865. C. WISDOM. CORN PLANTER.



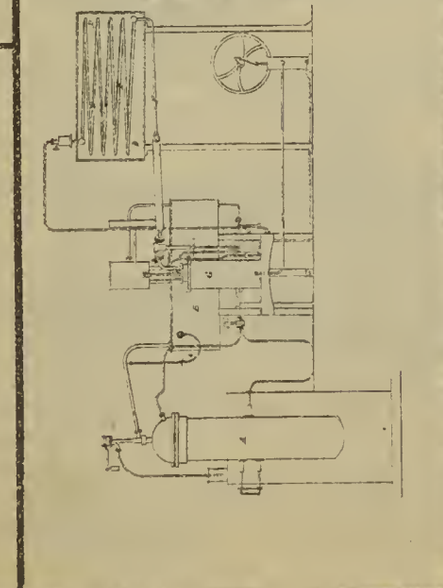
108,866. L. YANCY AND C. E. DORMAN APPARATUS FOR MAKING CHEESE.



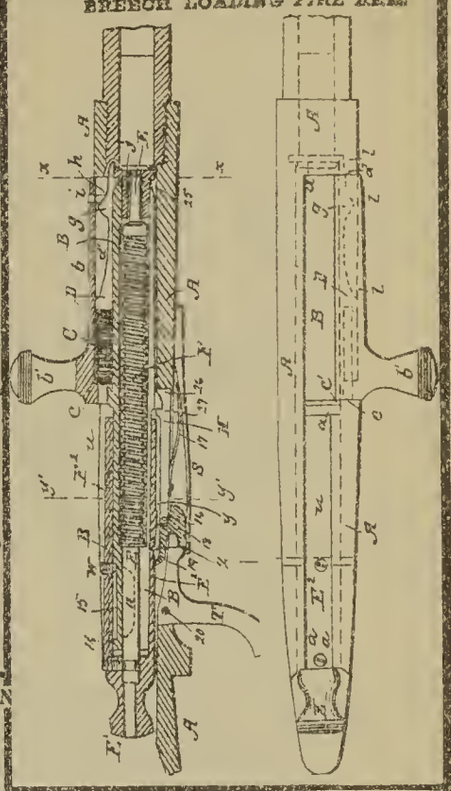
108,867. G. L. ANDERS. PRINTING TELEGRAPH.



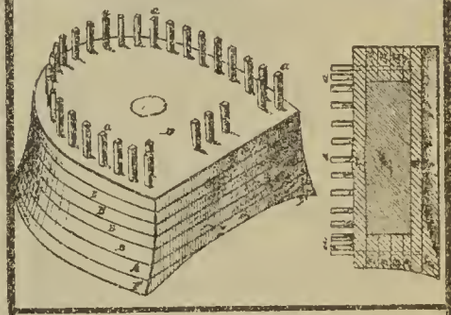
108,868. S. BENNETT APPARATUS FOR THE MANUFACTURE OF ICE.



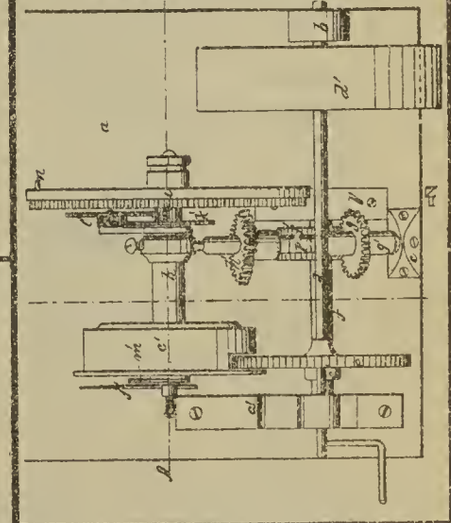
108,869. H. BERDAN BREECH LOADING FIRE ARM.



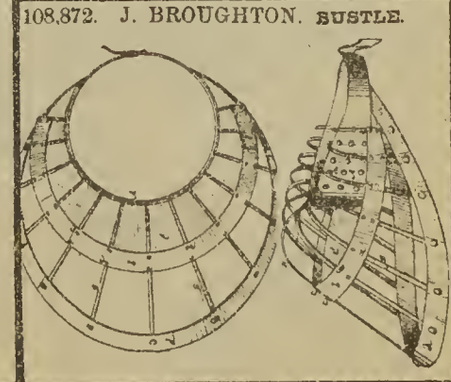
108,870. H. H. BIGELOW HEEL FOR BOOTS AND SHOES.



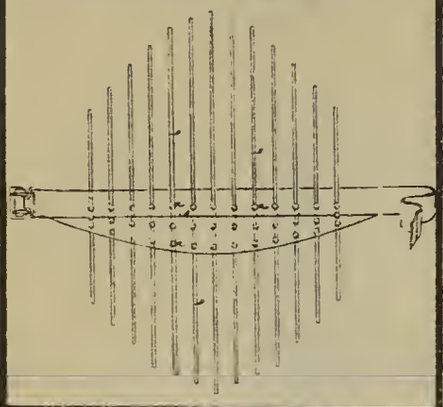
108,871. J. A. BRADSHAW AND S. L. CROCKETT. MEASURING APPARATUS FOR LOOMS &c.



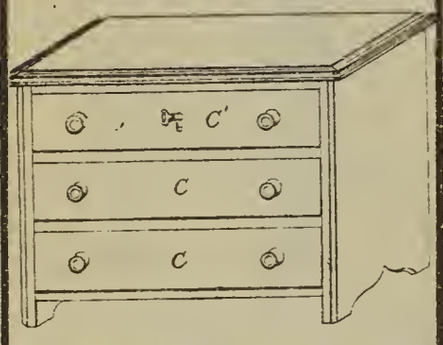
108,872. J. BROUGHTON. BUSTLE.



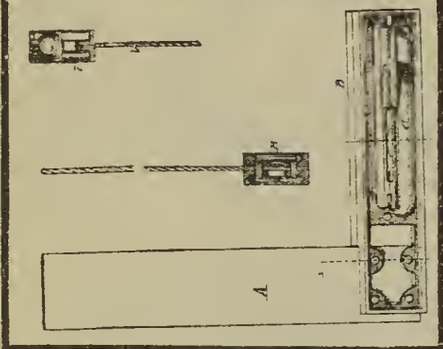
108,873. J. BROUGHTON. BUSTLE.



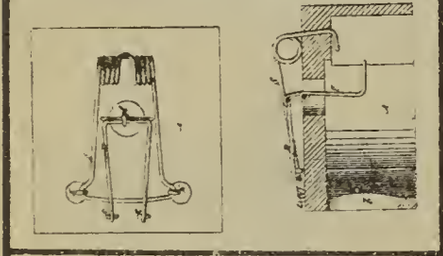
108,874. J. T. BROWN AND I. HIRD. AUTOMATIC FURNITURE LOCK.



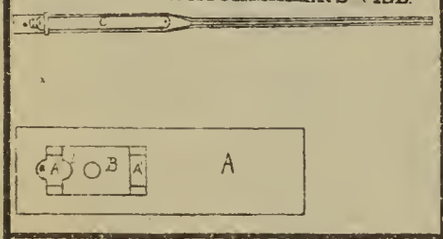
108,875. H. L. BUCKWALTER. TRY-SQUARE AND LEVEL.



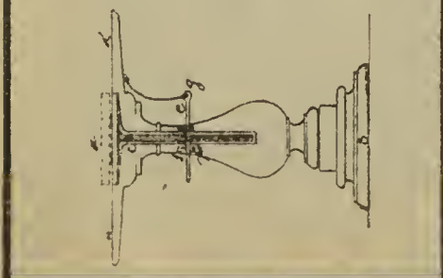
108,876. J. N. BUNNELL. MOUSE TRAP.



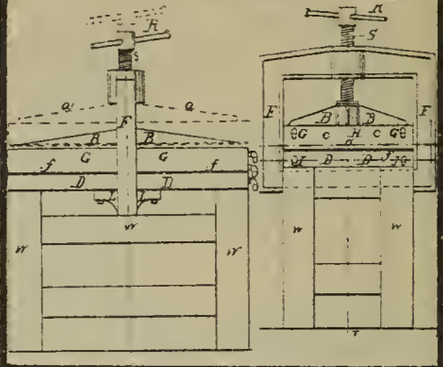
108,877. A. W. BUSH. WATCHMAKER'S VISE.



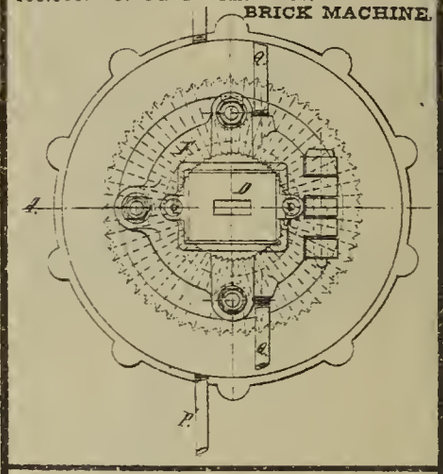
108,878. R. C. CASE. DINING TABLE.



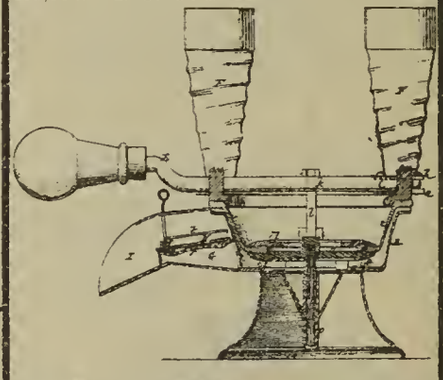
108,879. A. CHACE. STEREOTYPING.



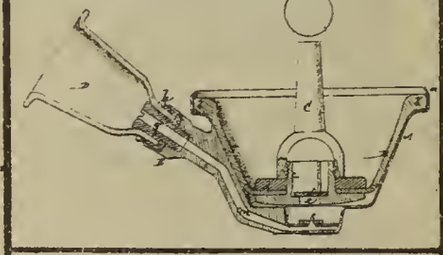
108,880. C. CHAMBERS, JR. BRICK MACHINE.



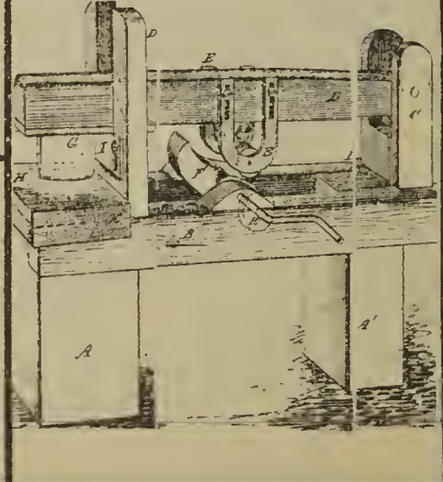
108,881. L. O. COLVIN. COW MILKER.



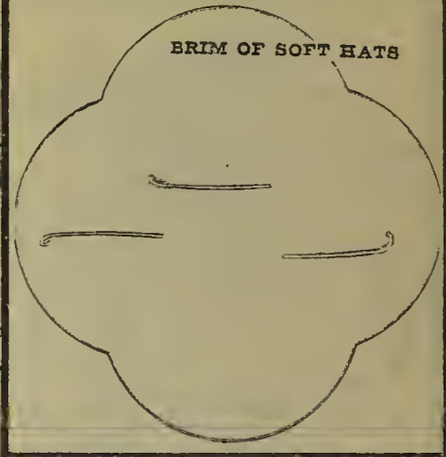
108,882. L. O. COLVIN. BREAST PUMP.



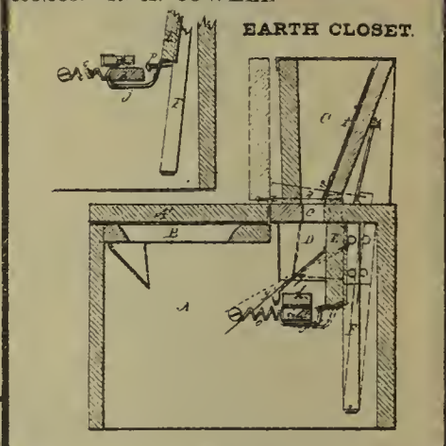
108,883. E. COOGAN. WOOD SPLITTING MACHINE.



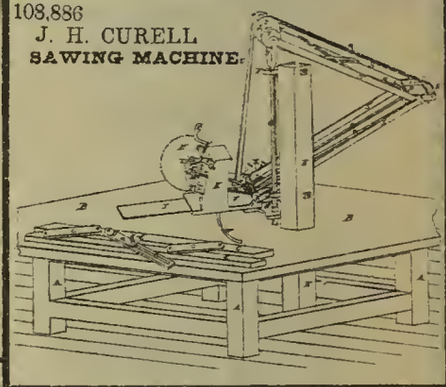
108,884. J. W. COREY. BRIM OF SOFT HATS.



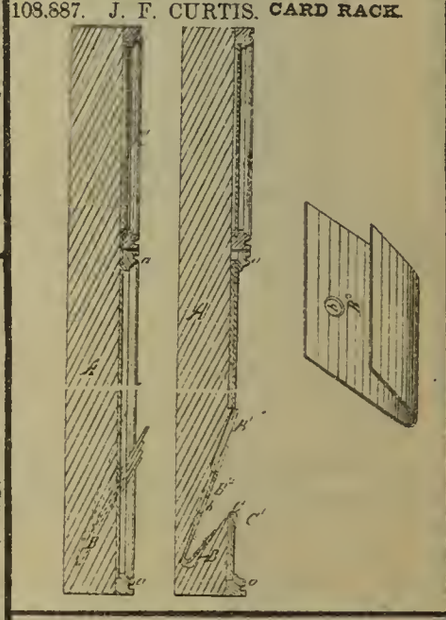
108,885. R. A. COWELL. EARTH CLOSET.



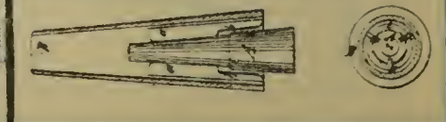
108,886. J. H. CURELL. SAWING MACHINE.



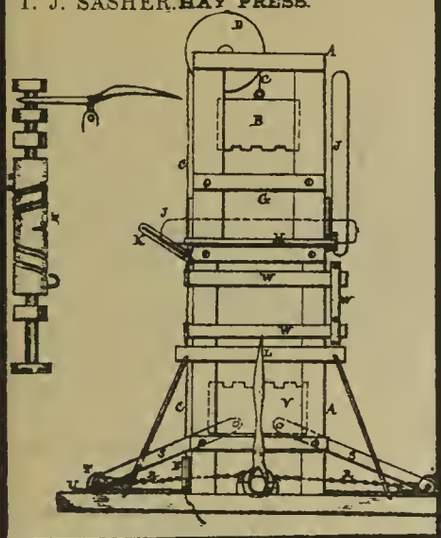
108,887. J. F. CURTIS. CARD RACK.



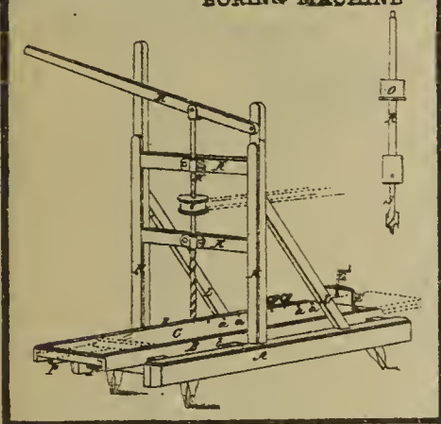
108,888. S. G. DARE. GAS HEATER.



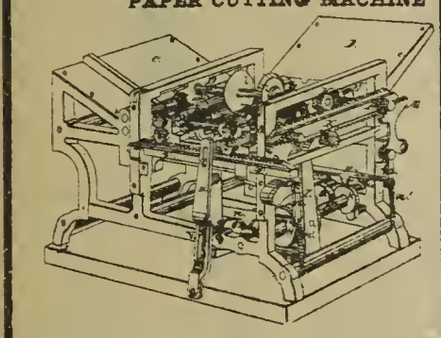
108,889. J. H. DAVISON AND T. J. SASHER. HAY PRESS.



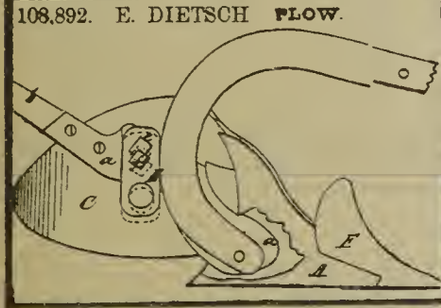
108,890. W. H. DEATRICK BORING MACHINE



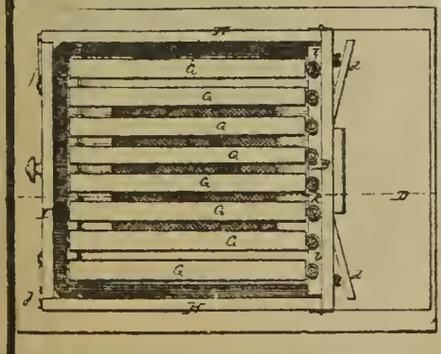
108,891. ST. CLAIR DENNY AND I. L. G. RICE PAPER CUTTING MACHINE



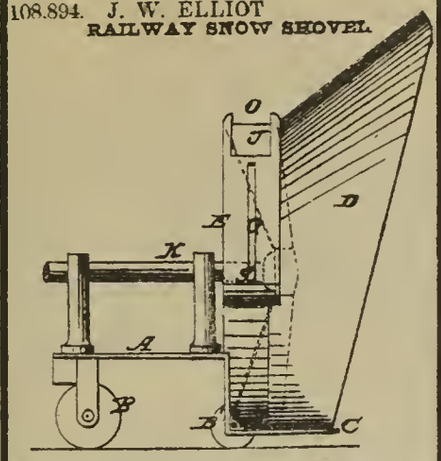
108,892. E. DIETSCH PLOW.



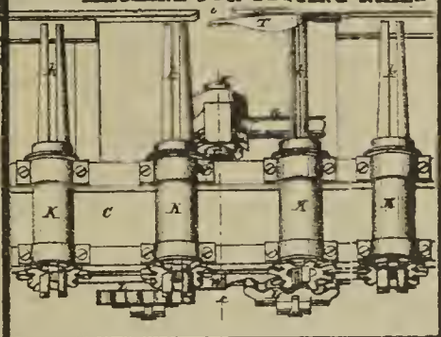
108,893. E. J. DONOVAN BEE HIVE.



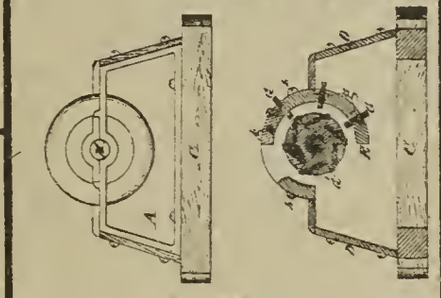
108,894. J. W. ELLIOT RAILWAY SNOW SHOVEL.



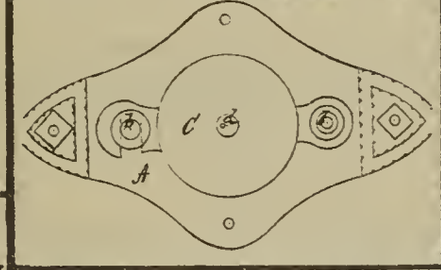
108,895. D. J. FARMER MACHINE FOR CUTTING NAILS



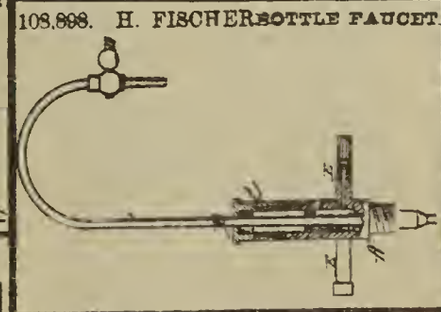
108,896. W. R. FEE COTTON SEED HULLER.



108,897. H. FISCHER. BUNG LOCK.

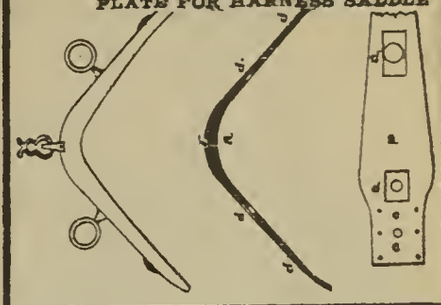


108,898. H. FISCHER BOTTLE FAUCET.

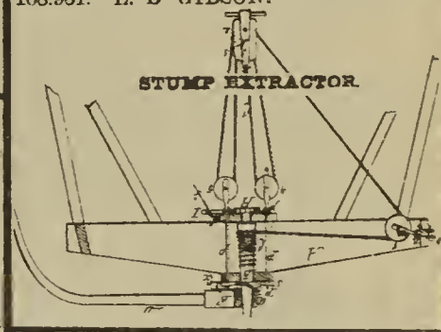


108,899. E. FONTAINE. LOCOMOTIVE SMOKE STACK.

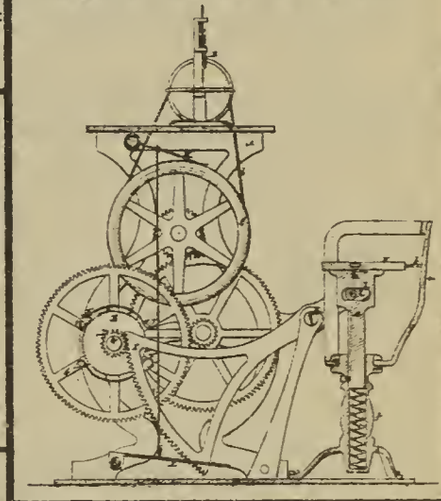
108,900. J. H. GARRETT PLATE FOR HARNESS SADDLE



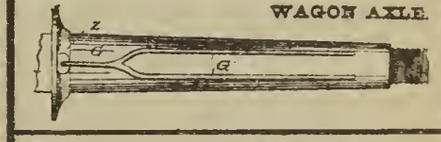
108,901. L. B GIBSON. STUMP EXTRACTOR.



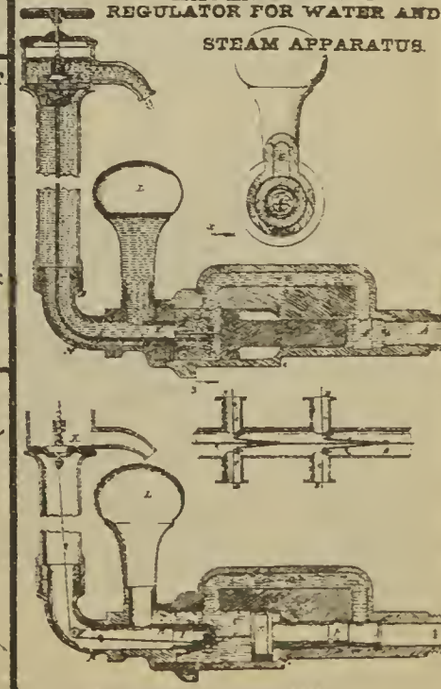
108,902. V. GIROUD APPARATUS FOR OPERATING SEWING MACHINES.



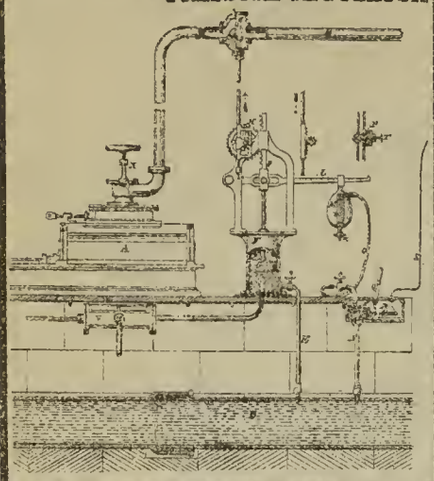
108,903G. H. GLAD AND J. C. BECKER WAGON AXLE.



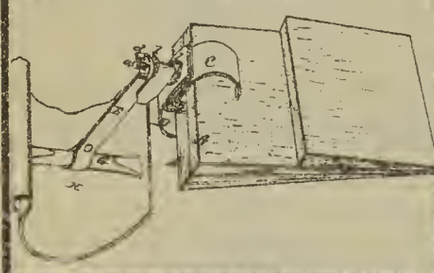
108,904. J. C. HAGAN PRESSURE REGULATOR FOR WATER AND STEAM APPARATUS.



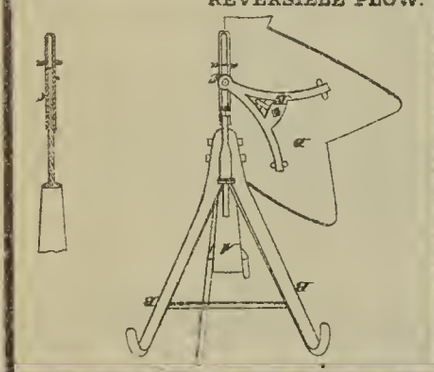
108,905. J. C. HAGAN.
STEAM AND WATER SUPPLY AND PRESSURE REGULATOR.



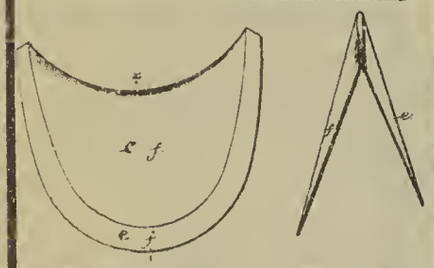
108,906. M. HENNEY AND W. B. RAGER
EAVES TROUGH FASTENER.



108,907. E. C. HODGE.
REVERSIBLE PLOW.

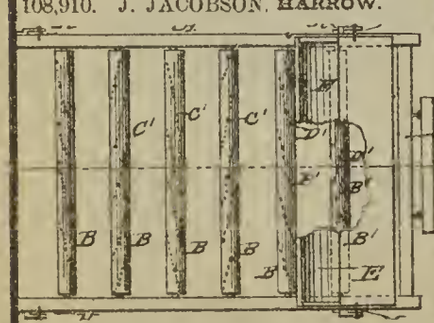


108,908. B. M. HOTCHKISS.
DRESS SHIELD.

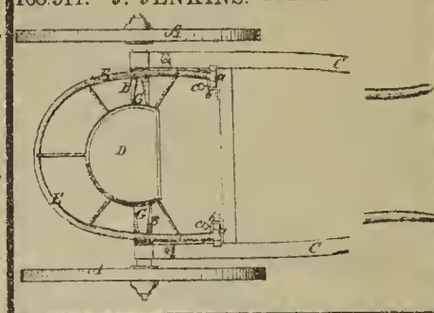


108,909. C. P. HOUGHTON
MANUFACTURE OF FERTILIZER.

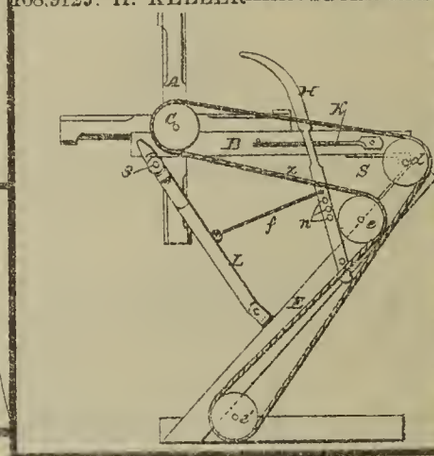
108,910. J. JACOBSON. HARROW.



108,911. J. JENKINS. SULKY.



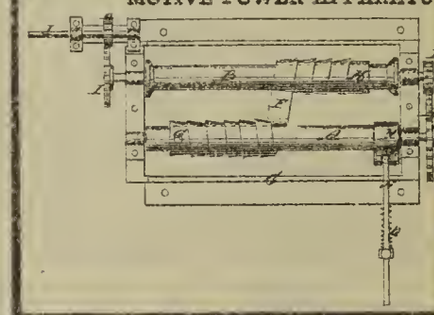
108,912 J. H. KELLER HARVESTER REEL



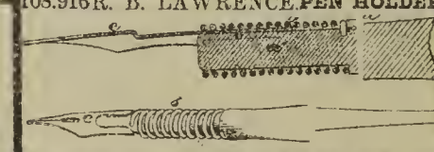
108,913. J. S. KENYON AND L. FOX
MANUFACTURE OF PAPER.

108,914. J. S. KENYON AND L. FOX
MINERAL PAINT.

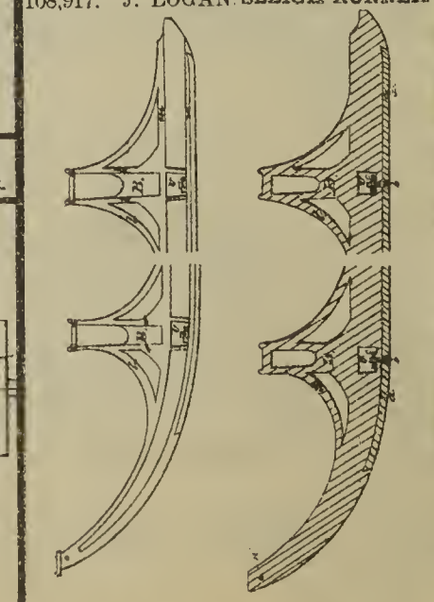
108,915. L. W. LATHROP
MOTIVE POWER APPARATUS



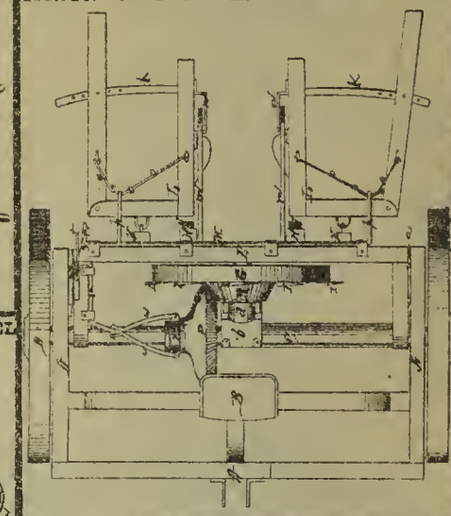
108,916 R. B. LAWRENCE. PEN HOLDER.



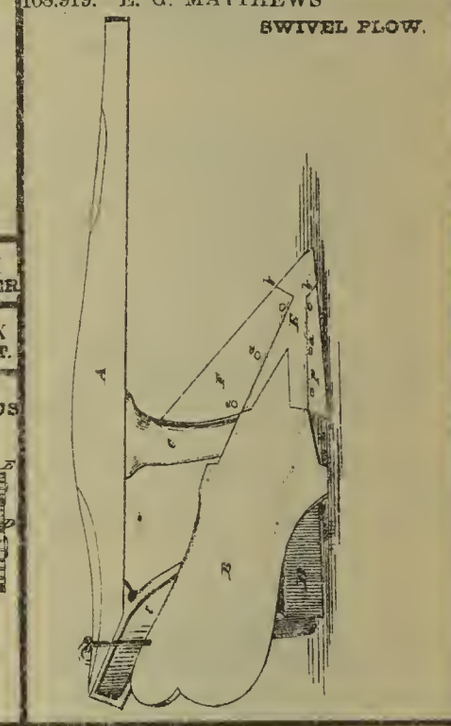
108,917. J. LOGAN. SLEIGH RUNNER.



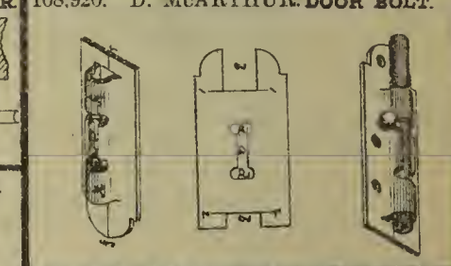
108,918. J. A. LUTZ COTTON CHOPPER.



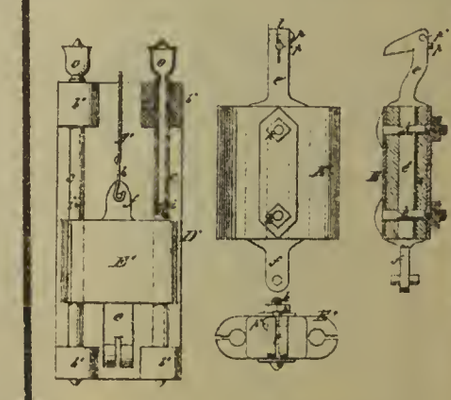
108,919. E. G. MATTHEWS
SWIVEL PLOW.



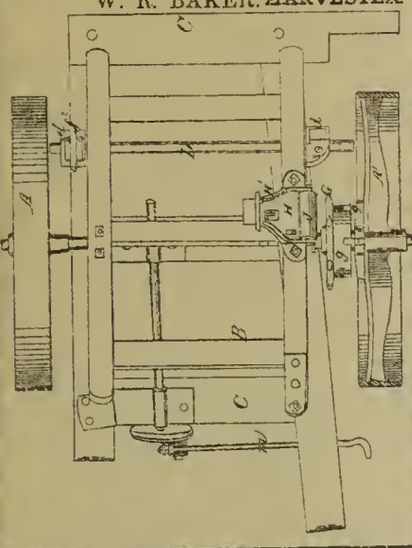
108,920. D. McARTHUR. DOOR BOLT.



108,921. R. McCHESNEY SCROLL SAW.

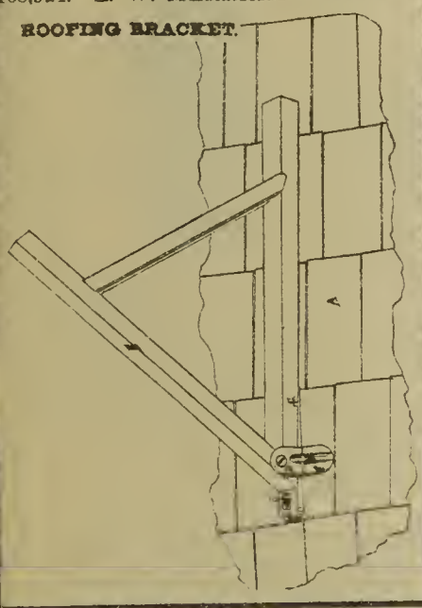


108,922. L. J. McCORMICK AND W. R. BAKER. HARVESTER.

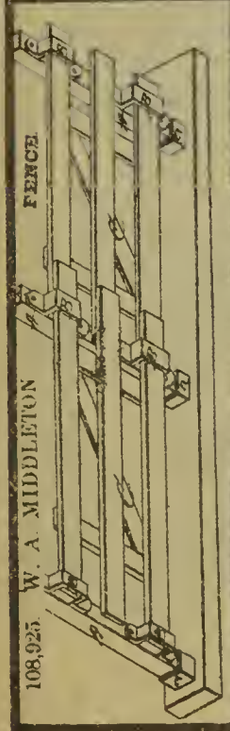


108,923. A. McDONALD PAINT BRUSH.

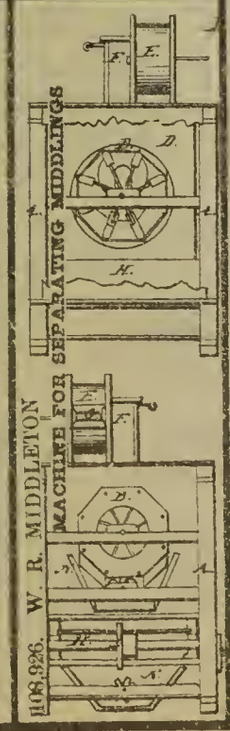
108,924. L. W. MERRIAM ROOFING BRACKET.



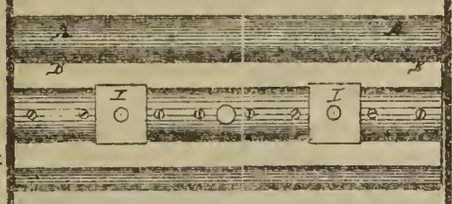
108,925. W. A. MIDDLETON FENCE.



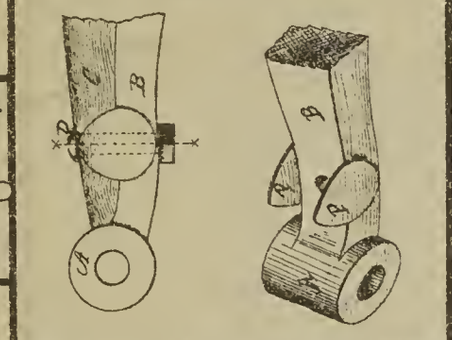
108,926. W. R. MIDDLETON MACHINE FOR SEPARATING MIDDLINGS



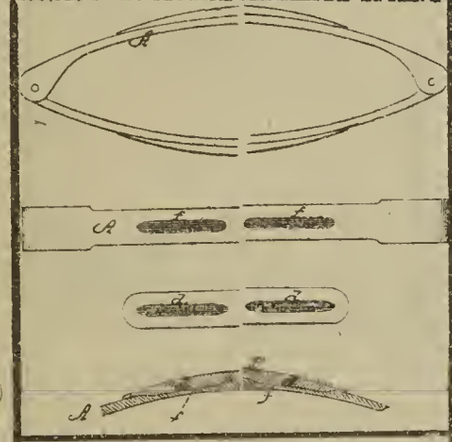
108,927. J. MILLER, JR. LOCK NUT.



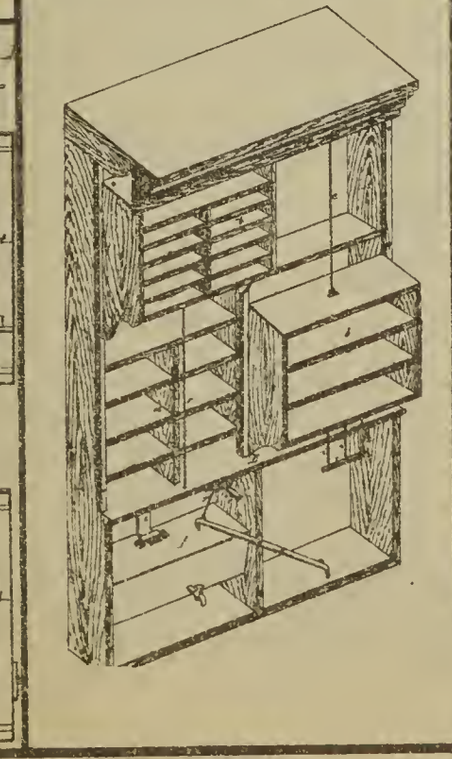
108,928. F. B. MORSE. SHAFT IRON FOR CARRIAGES.



108,929 F. B. MORSE CARRIAGE SPRING

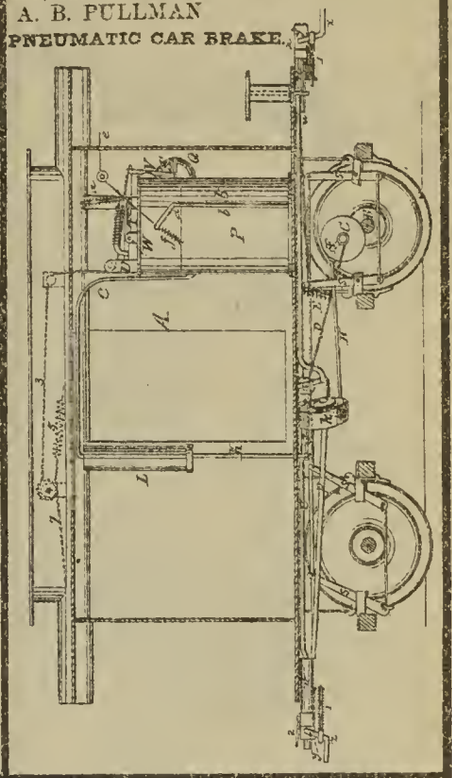


108,930. R. MURDOCH SHELVING FOR STORES.

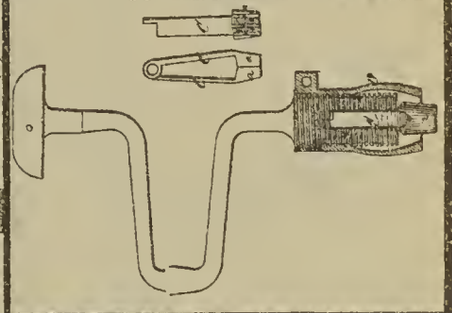


108,931. E. D. MURFEY COMPOSITION FOR BEARINGS.

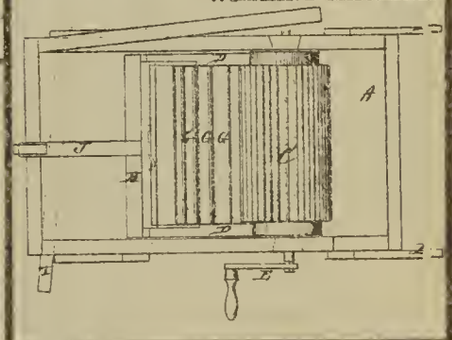
108,932. D. MYERS AND A. B. PULLMAN PNEUMATIC CAR BRAKE.



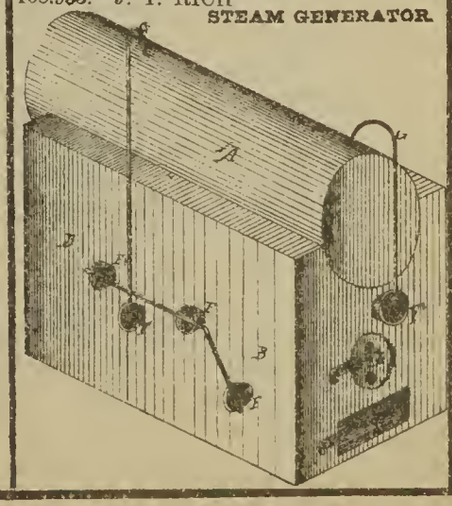
108,933. Z. S. OGDEN. DEVICE FOR CUTTING SCREW THREADS.



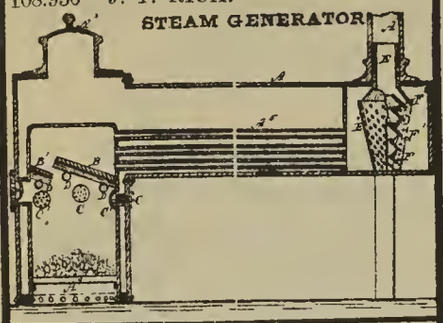
108,934. A. M. PAULLIN WASHING MACHINE.



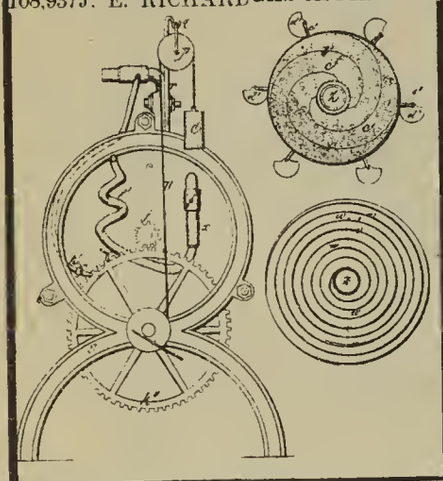
108,935. J. T. RICH STEAM GENERATOR.



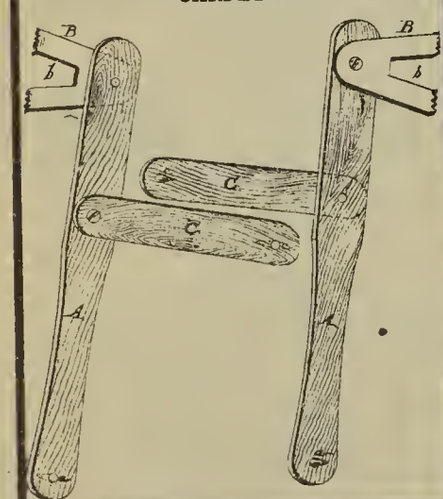
108,936 J. T. RICH.
STEAM GENERATOR.



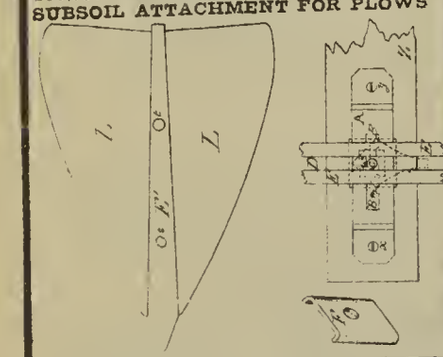
108,937 J. E. RICHARD GAS APPARATUS



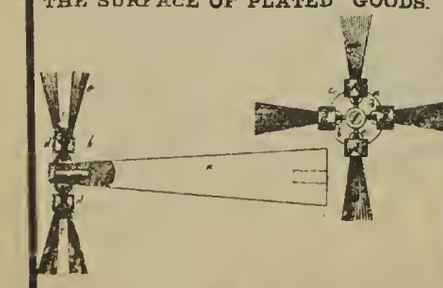
108,938. A. S. RICHARDS
CARPET STRETCHER.



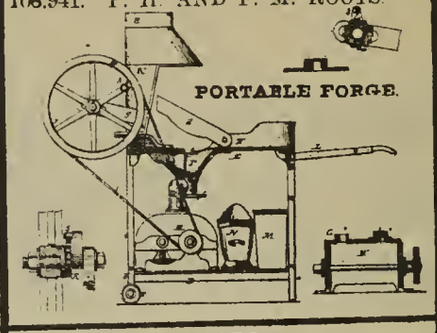
108,939. A. F. ROBERTS.
SUBSOIL ATTACHMENT FOR PLOWS



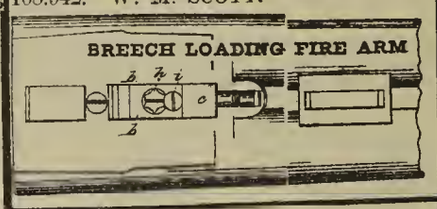
108,940. J. ROGERS. FINISHING THE SURFACE OF PLATED GOODS.



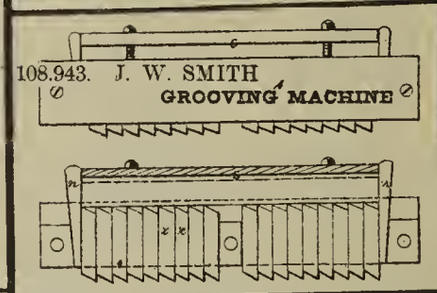
108,941. P. H. AND F. M. ROOTS.
PORTABLE FORGE.



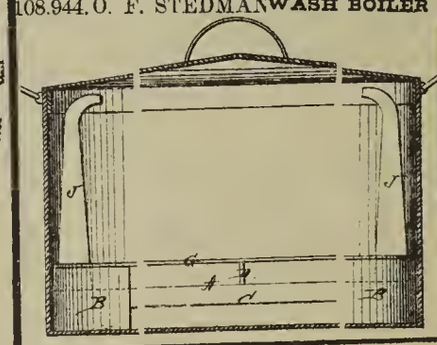
108,942. W. M. SCOTT.
BREECH LOADING FIRE ARM



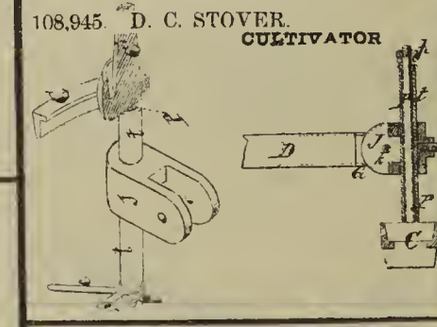
108,943. J. W. SMITH
GROOVING MACHINE



108,944. O. F. STEDMAN WASH BOILER

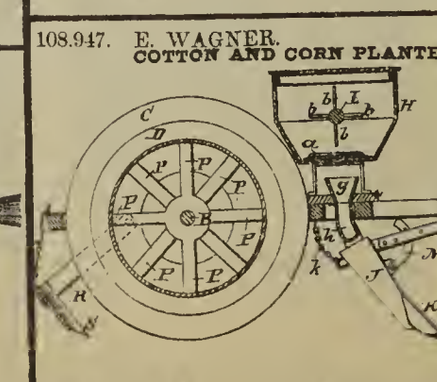


108,945. D. C. STOVER.
CULTIVATOR

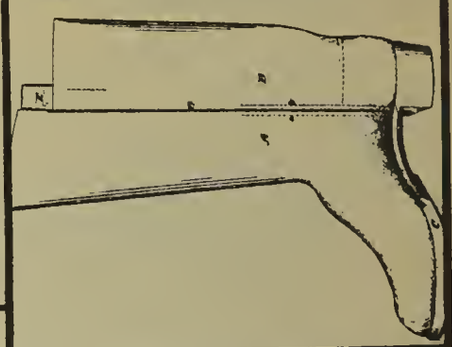


108,946. C. N. TUTTLE.
CAP FOR PLANE IRONS.

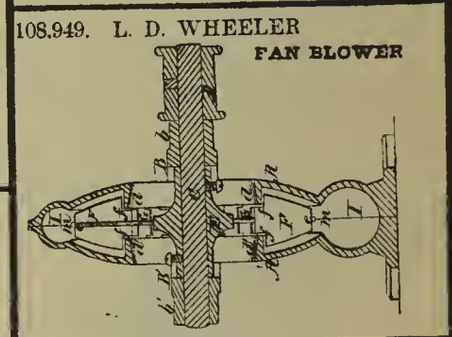
108,947. E. WAGNER.
COTTON AND CORN PLANTER



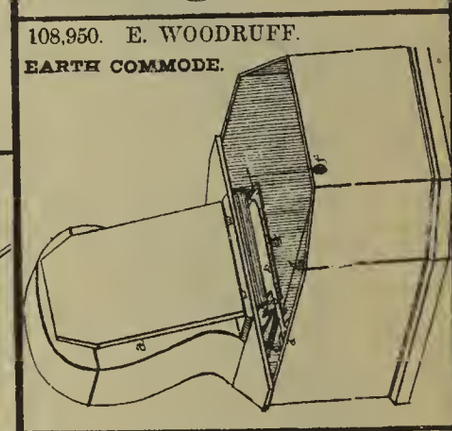
108,948. J. H. WALKER. BOOT.



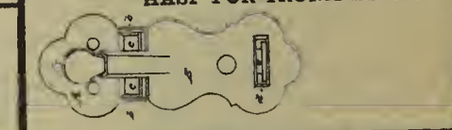
108,949. L. D. WHEELER
FAN BLOWER



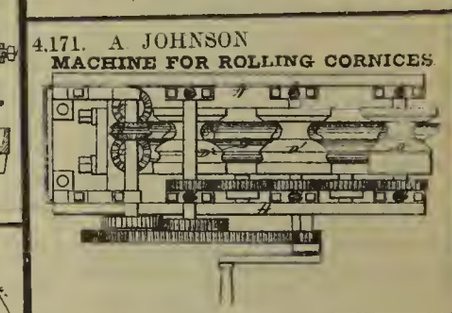
108,950. E. WOODRUFF.
EARTH COMMODE.



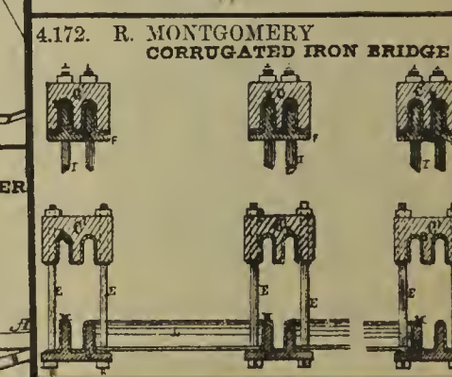
4,170. S. CROFT AND J. C. SCHUELLERMAN
HASP FOR TRUNK LOCKS.



4,171. A. JOHNSON
MACHINE FOR ROLLING CORNICES.



4,172. R. MONTGOMERY
CORRUGATED IRON BRIDGE



4,173. E. WAITE.
FABRIC FOR THE MANUFACTURE OF SHOES &c.

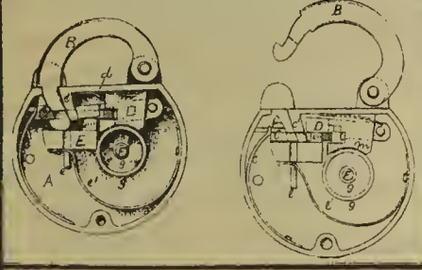
ILLUSTRATIONS OF PATENTS

ISSUED FROM

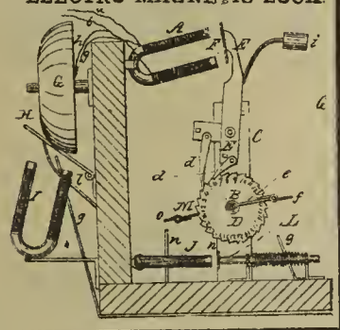
THE UNITED STATES PATENT OFFICE

NOVEMBER 8, 1870.

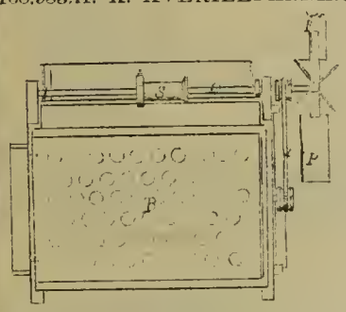
108,951. A. M. ADAMS. PAD AND TRUNK LOCK.



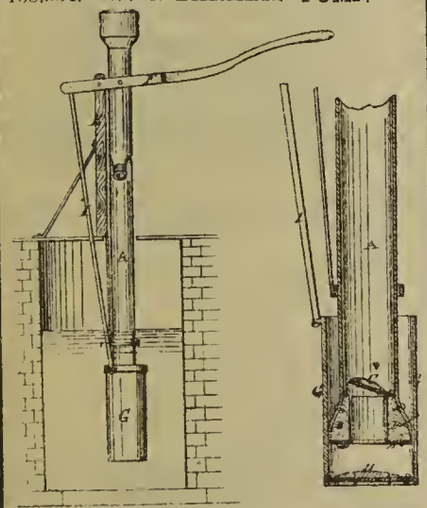
108,952. H. ARDEN. ELECTRO MAGNETIC LOCK.



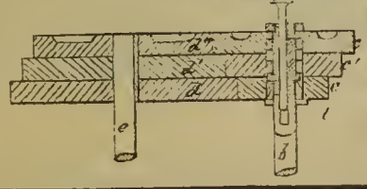
108,953. H. K. AVERILL FANNING MILL



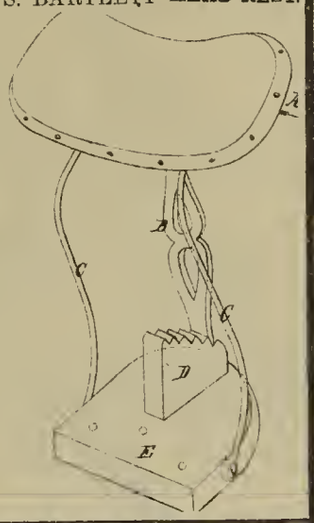
108,954. W. C. BARKER. PUMP.



108,955. W. M. BARR GEARING FOR METAL PLANERS

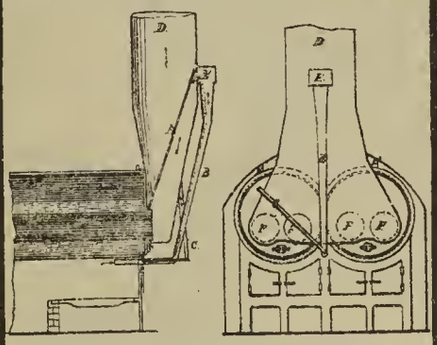


108,956. J. S. BARTLETT HEAD REST.

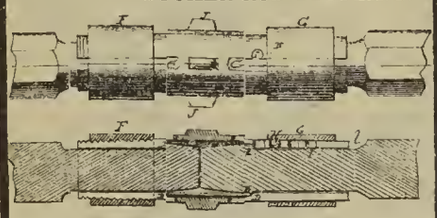


108,957 W. A. BATTERSBY COMPOUND FOR PIPES, TILES, SIDEWALKS, &c.

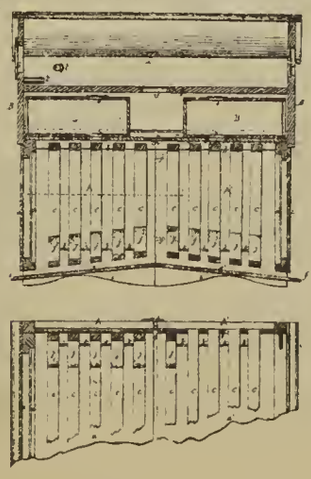
108,958. D. BEACH. SPARK CATCHER AND CONSUMER



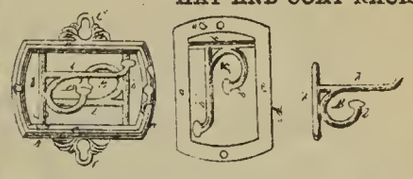
108,959. J. H. BEATTY. SUCKER ROD COUPLING.



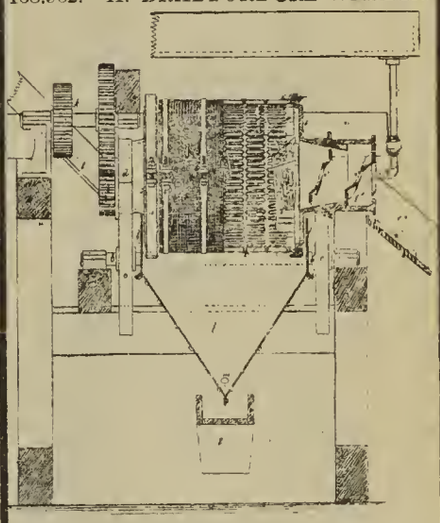
108,960. J. BEHE. BEE HIVE.



108,961. G. T. BENSON HAT AND COAT RACK

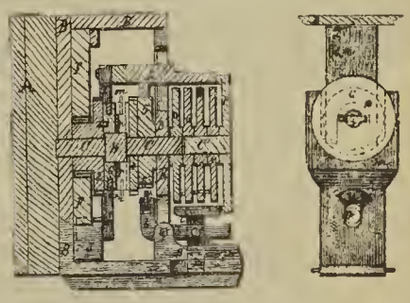


108,962. H. BRADFORD ORE WASHER.

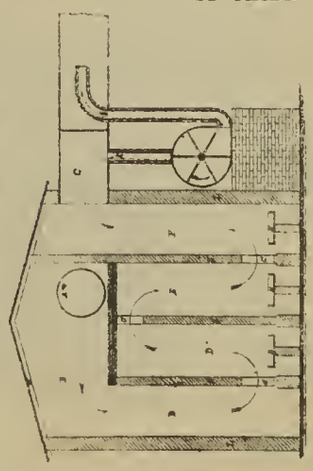


108,963. J. C. BRANCH AND H. P. QUIN. LINIMENT.

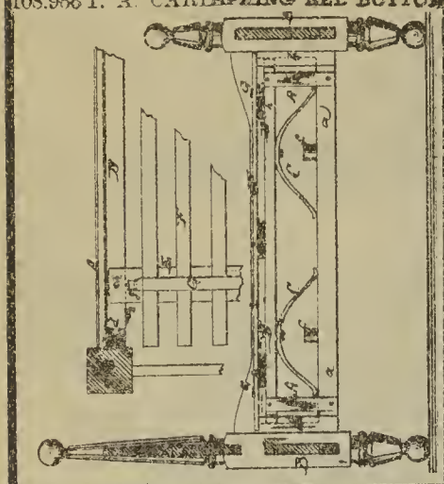
108,964. F. H. BROWN. PERMUTATION LOCK



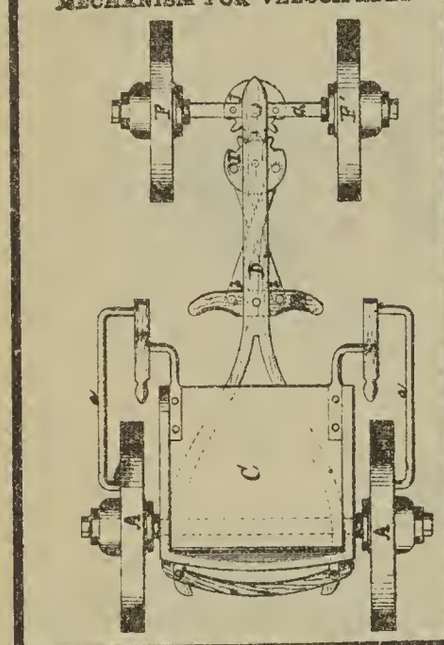
108,965. J. E. BURROWS. APPARATUS FOR COOLING THE VAPORS OF OXIDE OF ZINC.



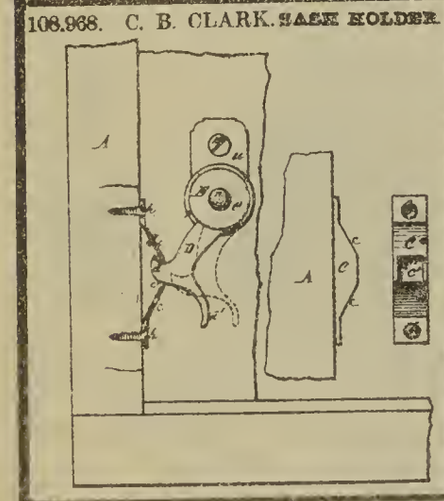
108,966 T. A. CARLSPEING BED BOTTOM



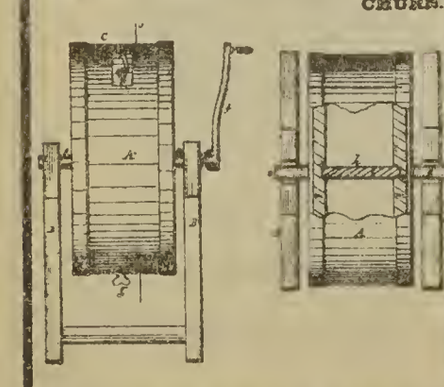
108,967. A. CHRISTIAN STEERING MECHANISM FOR VELOCIPEDES.



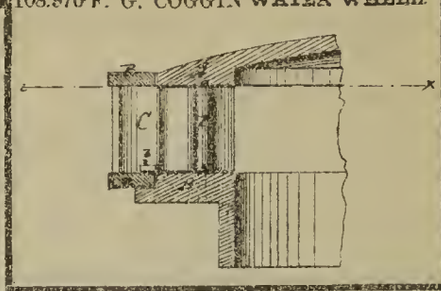
108,968. C. B. CLARK. SASH HOLDER.



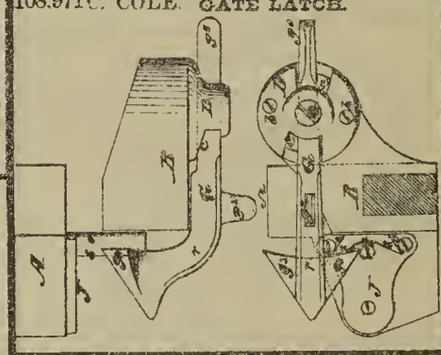
108,969. T. COFFIELD AND B. EGLI. CHURN.



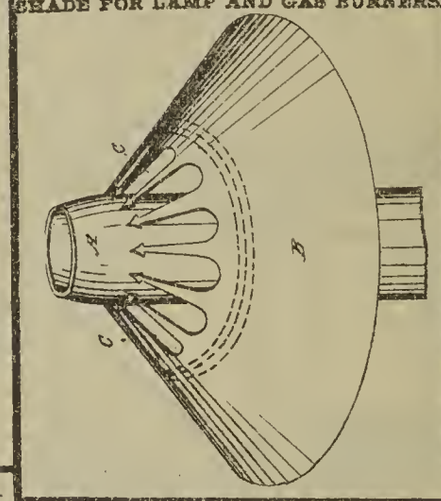
108,970 F. G. COGGIN WATER WHEEL.



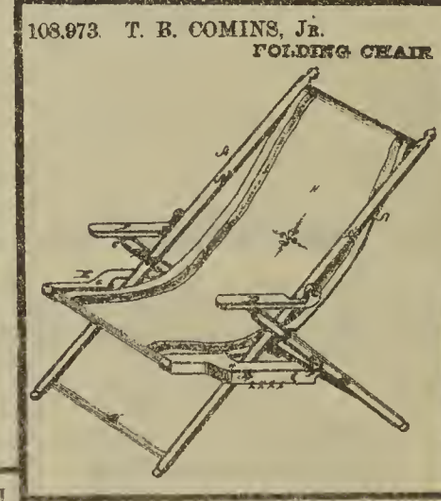
108,971 C. COLE. GATE LATCH.



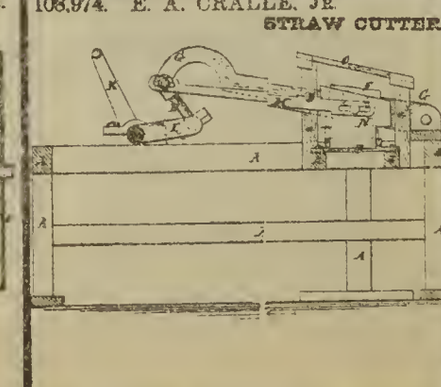
108,972. M. H. COLLINS. SHADE FOR LAMP AND GAS BURNERS.



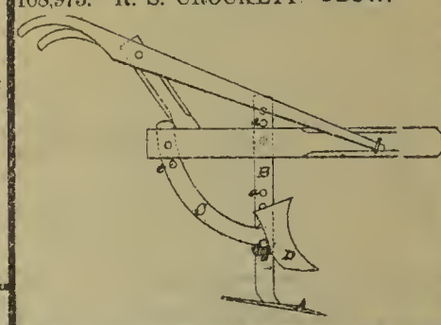
108,973. T. B. COMINS, JR. FOLDING CHAIR.



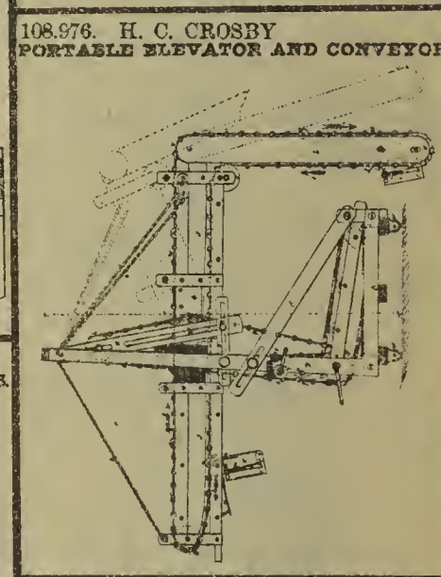
108,974. E. A. CRALLE, JR. STRAW CUTTER.



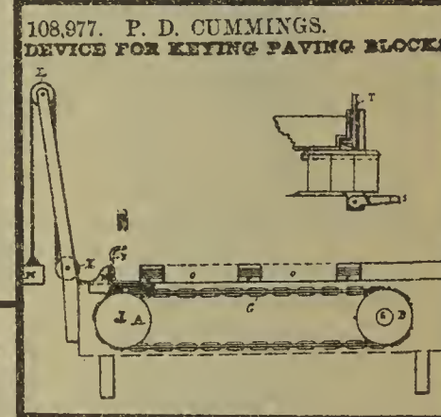
108,975. R. S. CROCKETT. PLOW.



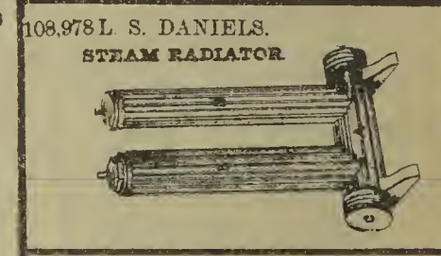
108,976. H. C. CROSBY PORTABLE ELEVATOR AND CONVEYOR.



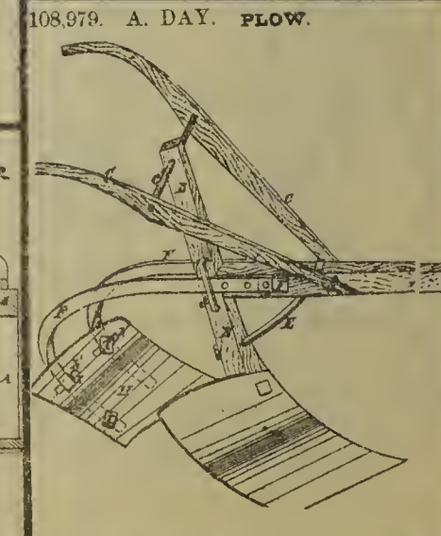
108,977. P. D. CUMMINGS. DEVICE FOR KEYING PAVING BLOCKS.



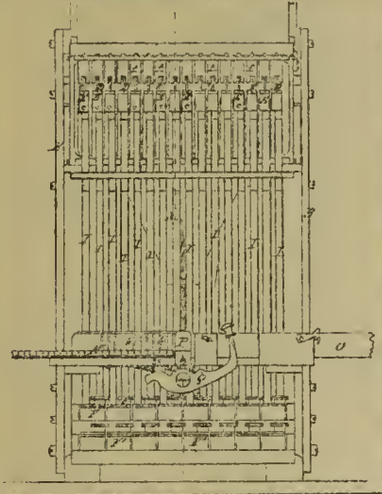
108,978 L. S. DANIELS. STEAM RADIATOR.



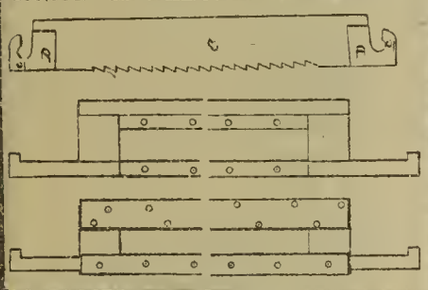
108,979. A. DAY. PLOW.



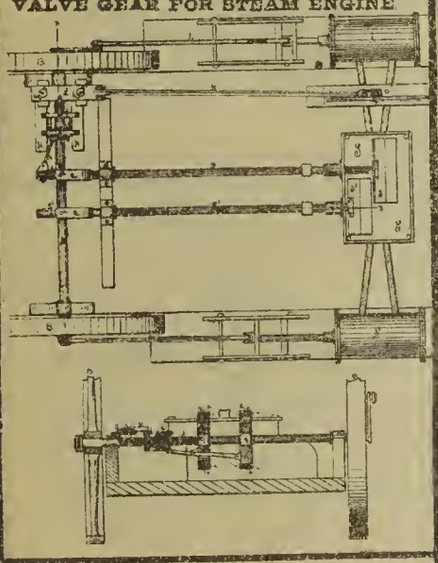
108,980. M. DE LA PEÑA
TYPE SETTING MACHINE.



108,981. M. DELUDE. SAW MILL.

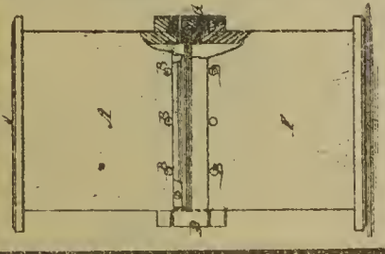


108,982. W. B. DODDRIDGE.
VALVE GEAR FOR STEAM ENGINE.

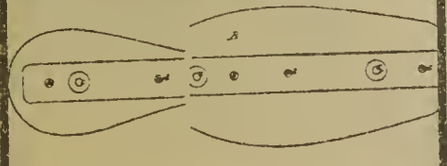


108,983. J. E. DOTCH.
PRESERVING MEAT FISH. OYSTERS. &c

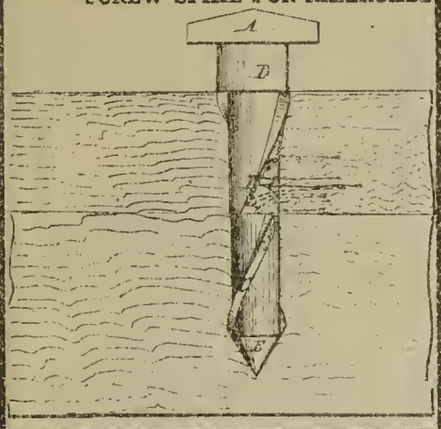
108,984. J. A. DOUGLASS. BEE HIVE.



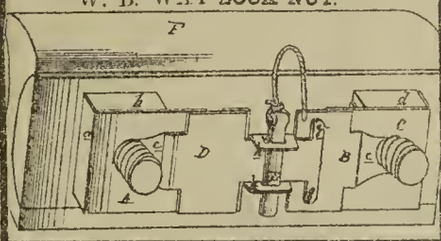
108,985. C. S. DUNBRACK
INSOLE FOR MANUFACTURING SHOES



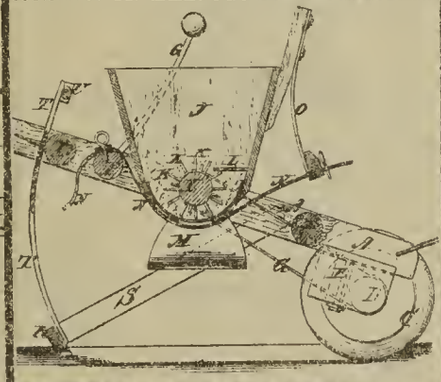
108,986. A. C. AND I. L. DUNN
SCREW SPIKE FOR RAILROADS



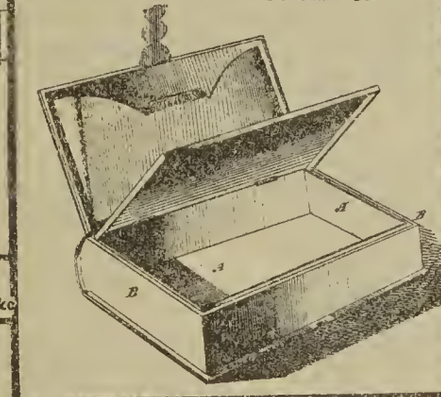
108,987 P. DYER, JR., A. PARKER, AND W. B. WAY LOCK NUT.



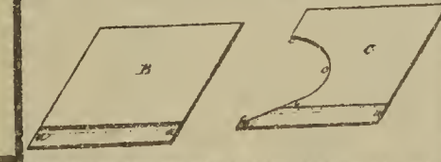
108,988 J. M. ELLIOTT SEED PLANTER.



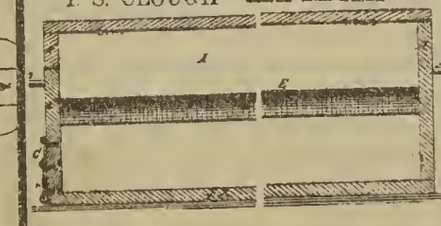
108,989. J. ELSON. LUNCH BOX.



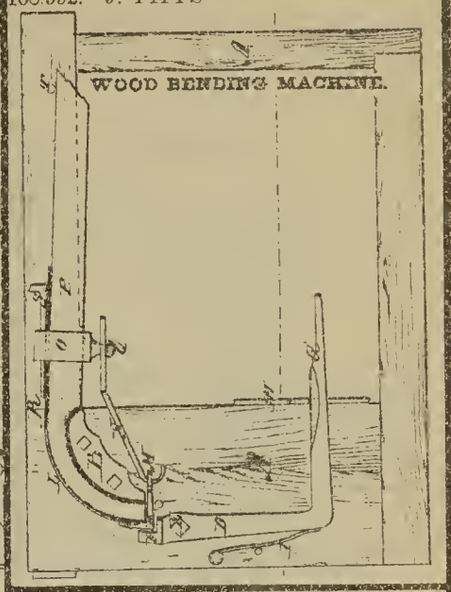
108,990. J. E. EMERSON.
BLANK FOR SAW TEETH.



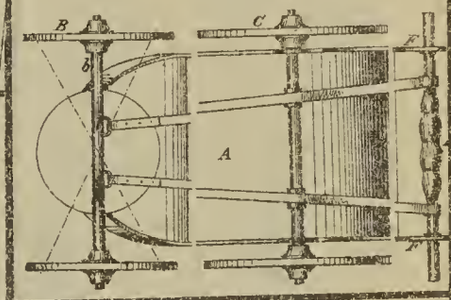
108,991. W. S. ESTEY AND I. S. CLOUGH ASH SIFTER.



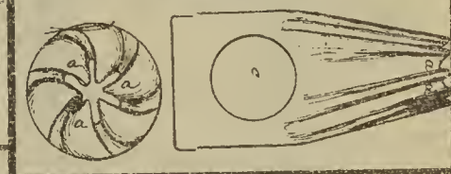
108,992. J. FIPPS
WOOD BENDING MACHINE.



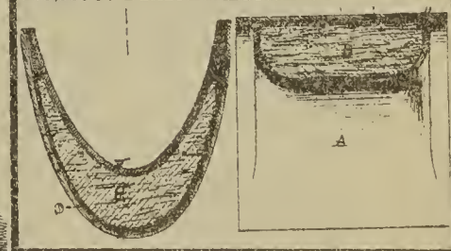
108,993. I. N. FORRESTER
CHILDREN'S CARRIAGE.



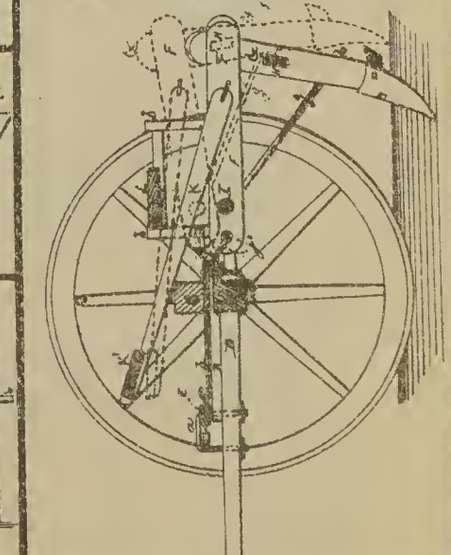
108,994. J. T. FOSTER
WINDOW SASH WEIGHT.



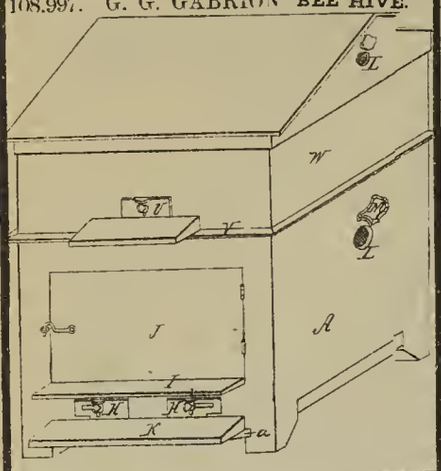
108,995 J. FRASER HORSE COLLAR PAD.



108,996. D. FULLER.
ATTACHMENT OF CULTIVATOR FRAMES TO WAGON AXLE TREES.



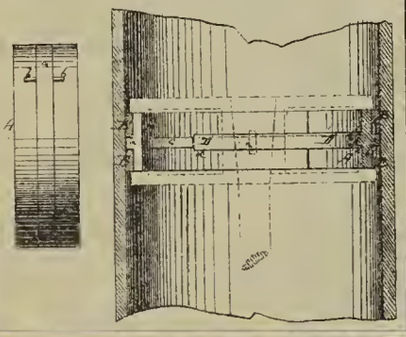
108,997. G. G. GABRION **BEE HIVE.**



108,998. D'ALEMBERT. GALE.

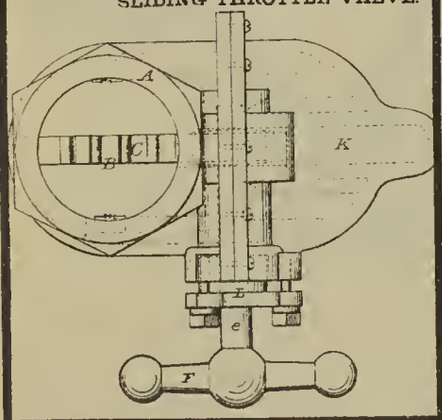
BED SPRING.

108,999. J. GATES. **PISTON PACKING**



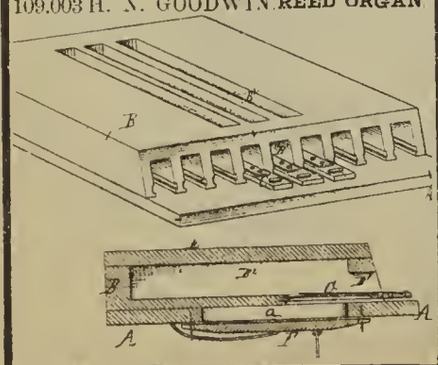
109,000. W. GELLER
COMPOSITION FOR PENCILS.

109,001. W. GLASS. **LATERALLY SLIDING THROTTLE VALVE.**

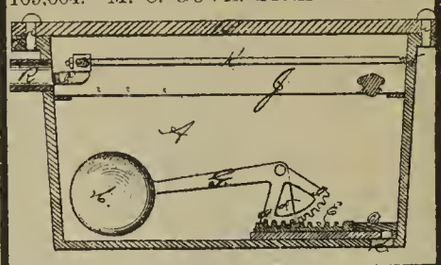


109,002. J. P. GODFREY
ROOFING COMPOSITION

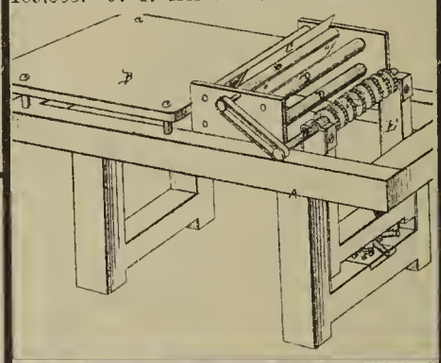
109,003 H. N. GOODWIN. **REED ORGAN**



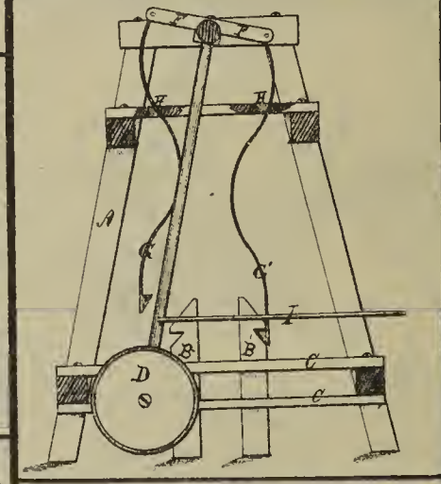
109,004. M. C. GOVE. **STEAM TRAP.**



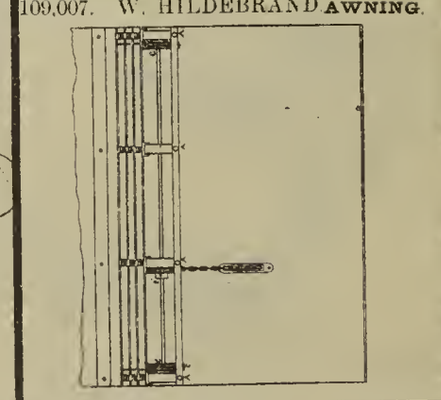
109,005. J. T. HALL. **LATH MACHINE.**



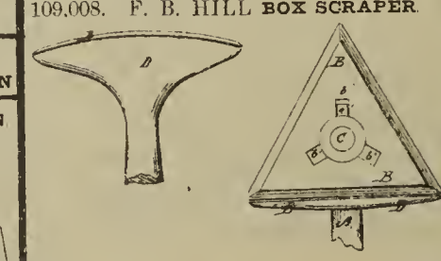
109,006. J. HART.
PENDULUM CRUSHING MILL.



109,007. W. HILDEBRAND. **AWNING.**



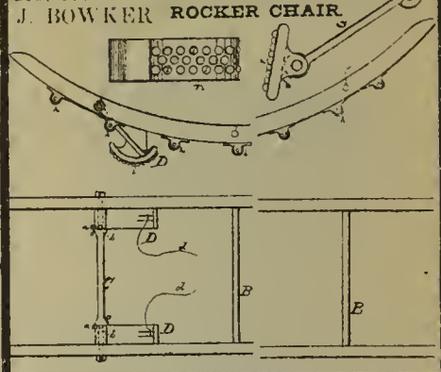
109,008. F. B. HILL **BOX SCRAPER.**



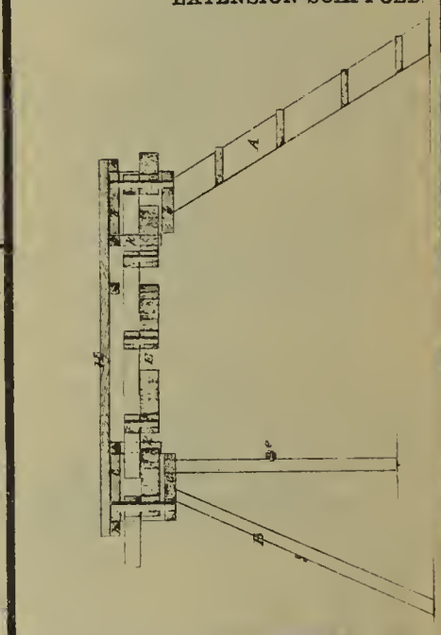
109,009. C. E. L. HOLMES
PREPARATION OF PEAT

109,010. W. HORWITZ. **LIQUID GLUE.**

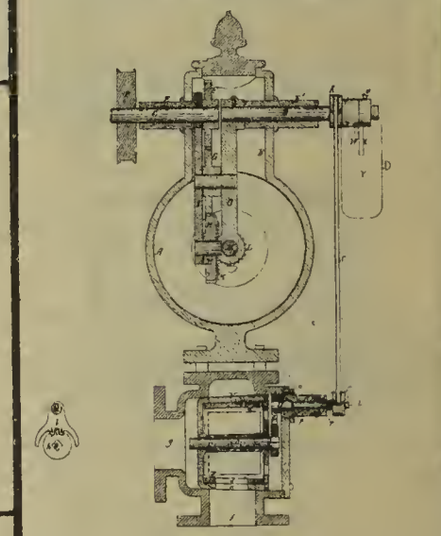
109,011. C. H. HUDSON AND J. BOWKER **ROCKER CHAIR.**



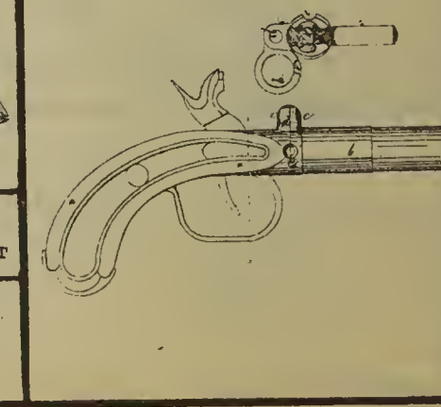
109,012. J. HUGHES
EXTENSION SCAFFOLD.



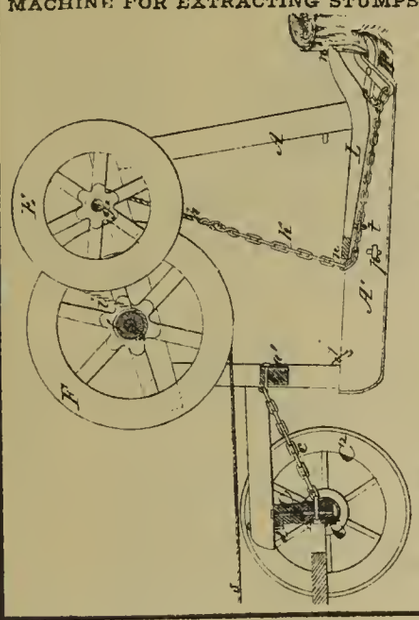
109,013. R. K. HUNTOON
GOVERNOR FOR STEAM ENGINE.



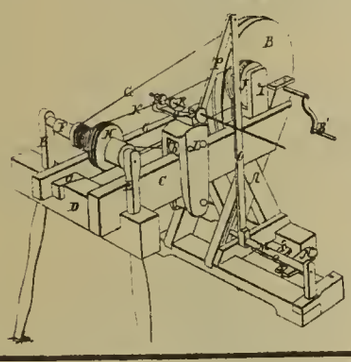
109,014. R. HUTCHISON
FIRE CRACKER PISTOL OR HOLDER



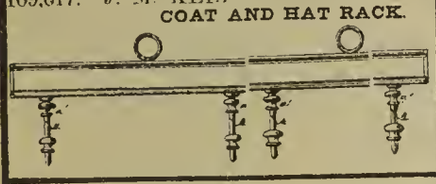
109,015. J. A. JENKINS. MACHINE FOR EXTRACTING STUMPS



109,016. T. JOHNSTON SPINNING WHEEL.

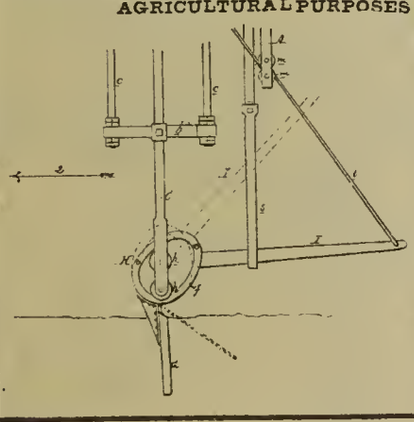


109,017. J. M. KEEP COAT AND HAT RACK.

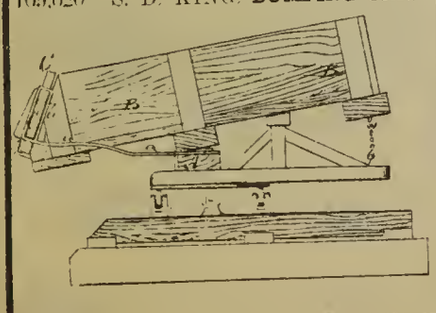


109,018. P. J. KELLY. COMPOSITION FOR COATING BEARINGS.

109,019. A. L. KENNEDY DIGGING MACHINE FOR AGRICULTURAL PURPOSES

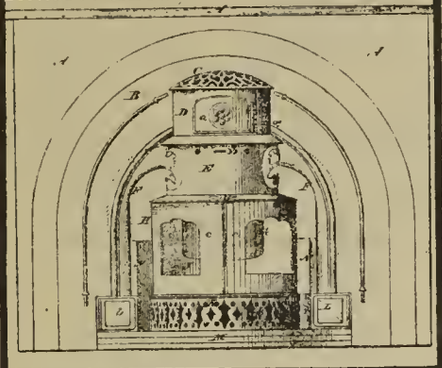


109,020. S. D. KING. DUMPING CAR.

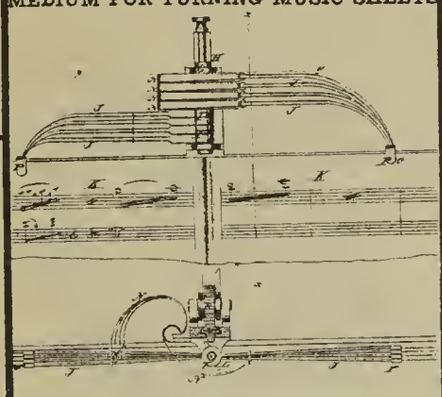


109,021. S. W. KIRK. FLUX FOR WORKING METALS AND MINERALS.

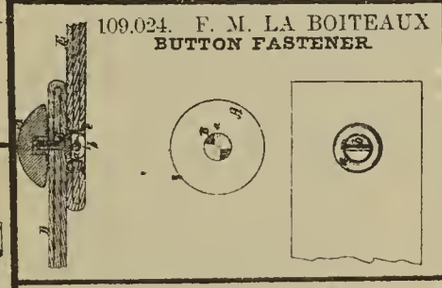
109,022. P. KLOTZ. FIRE PLACE STOVE



109,023. A. KRAFFT. MEDIUM FOR TURNING MUSIC SHEETS

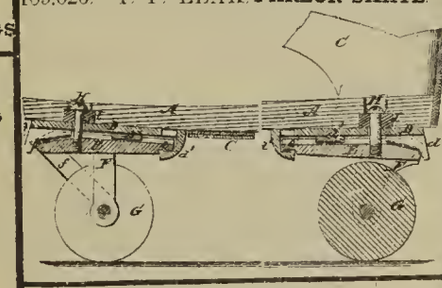


109,024. F. M. LA BOITEAUX BUTTON FASTENER.

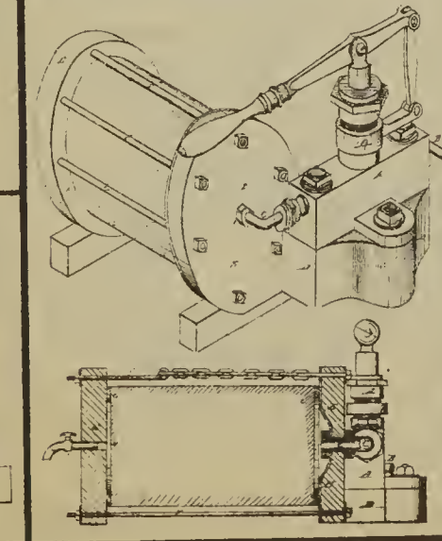


109,025. J. LAMBERT, Jr. REMOVING DYES MADE FROM ANILINE, &c.

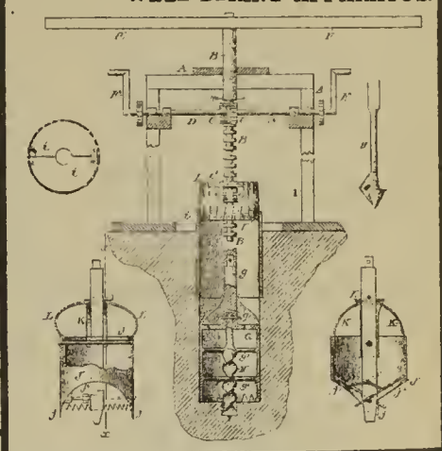
109,026. T. F. LEAK. PARLOR SKATE.



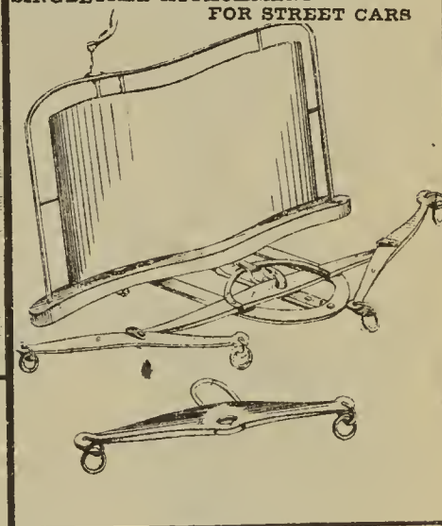
109,027. F. LEAR. COLORING AND PRESERVING WOOD.



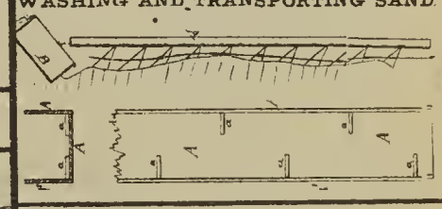
109,028. N. H. LINDLEY WELL BORING APPARATUS.



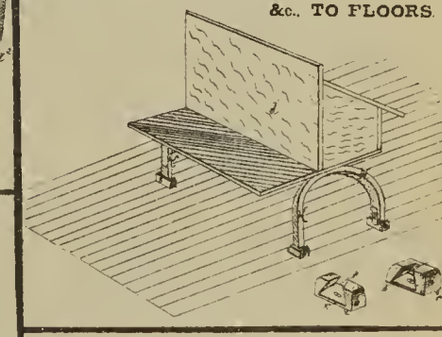
109,029. J. F. LOWE. DOUBLE AND SINGLETREE ATTACHMENT FOR STREET CARS



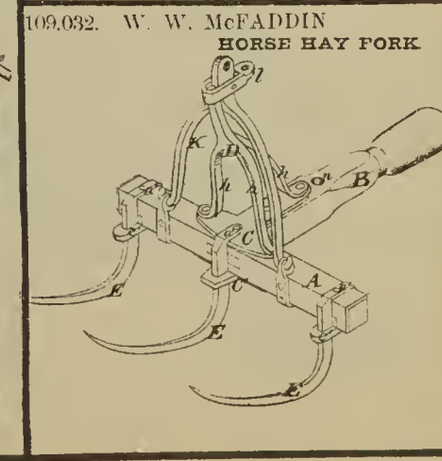
109,030. D. D. MALLORY WASHING AND TRANSPORTING SAND.



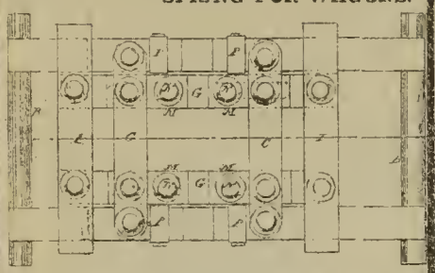
109,031. J. D. McAULIFF. DEVICE FOR FASTENING DESKS, SEATS &c., TO FLOORS.



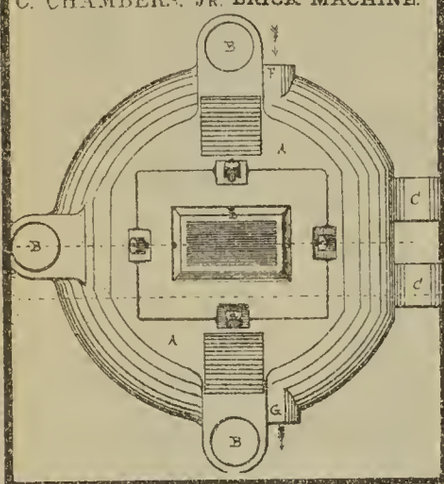
109,032. W. W. McFADDIN HORSE HAY FORK.



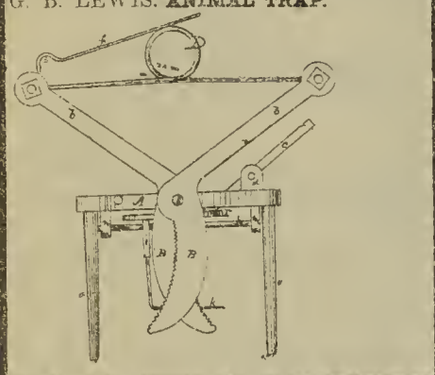
109,033. A. W. McKOWN. SPRING FOR WAGONS.



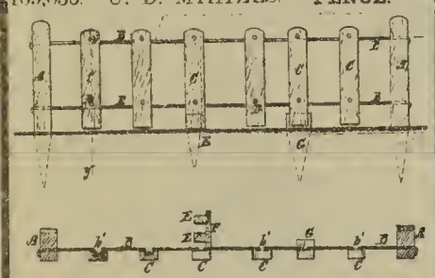
109,034. W. MENDHAM AND C. CHAMBERS, JR. BRICK MACHINE.



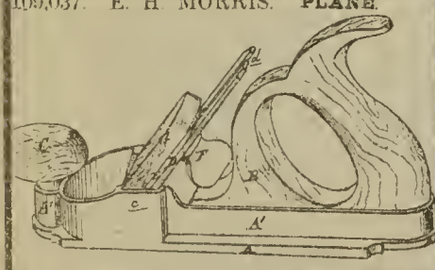
109,035. J. B. MERRIMAN AND G. B. LEWIS. ANIMAL TRAP.



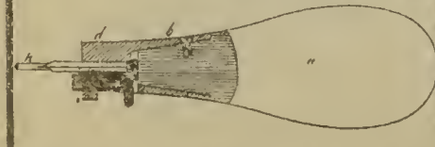
109,036. U. D. MIHILLS. FENCE.



109,037. E. H. MORRIS. PLANE.

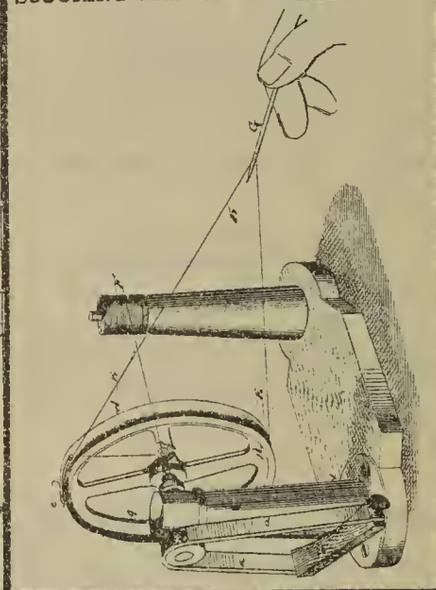


109,038. E. MURRAY. TOOL HANDLE.

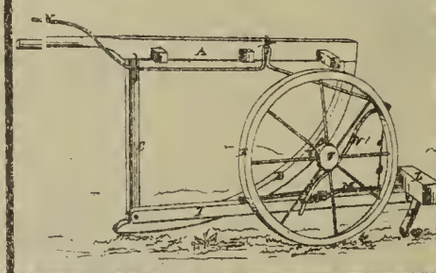


109,039. C. NEAMES SETTING BOILERS

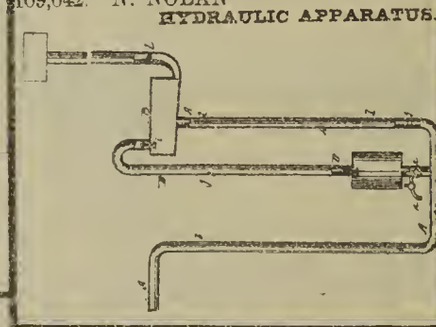
109,040. H. A. NETTLETON AND E. R. LAWTON. MACHINE FOR SCOURING THE EYES OF NEEDLES.



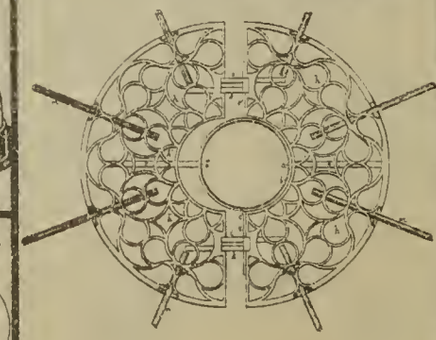
109,041. A. M. NEWLAND. COMBINED BARROW AND TURNIP-DRILL.



109,042. N. NOLAN HYDRAULIC APPARATUS.

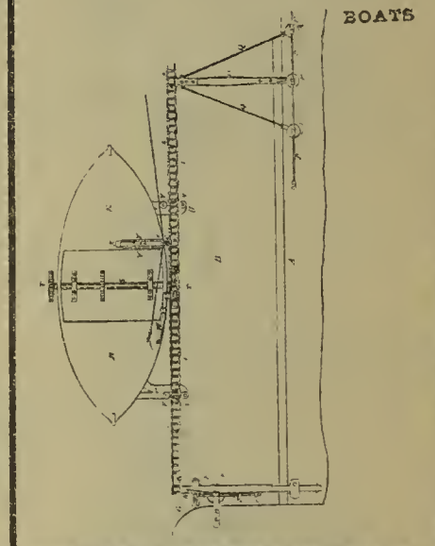


109,043. J. O'MALLEY STOVE PIPE GRATE.

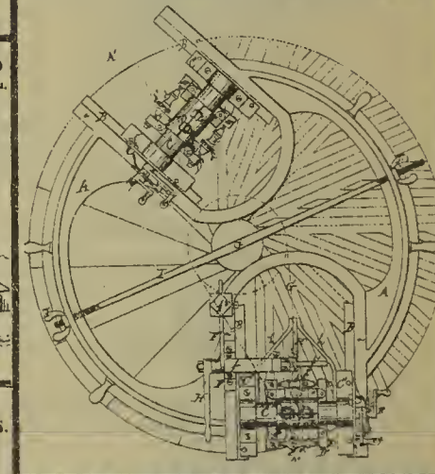


109,044. M. ORMSBEE. PIN CUSHION.

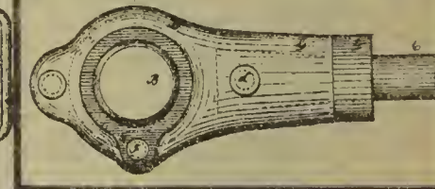
109,045. S. W. AND J. F. PALMER APPARATUS FOR TOWING CANAL BOATS



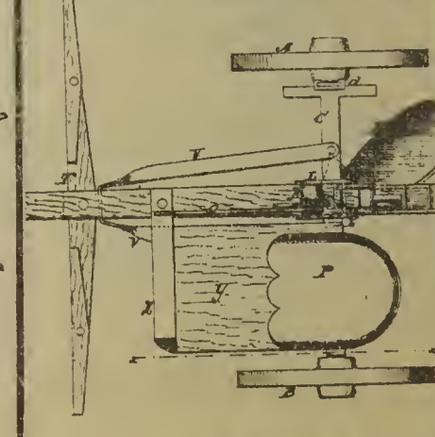
109,046. J. PEPLER. MACHINE FOR DRESSING MILLSTONES.



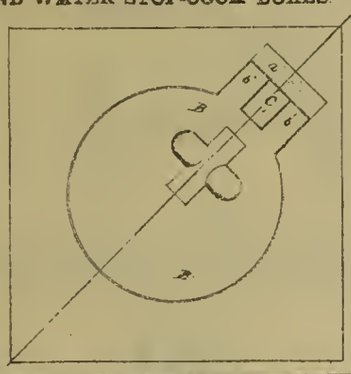
109,047. C. H. PERKINS. PITMAN.



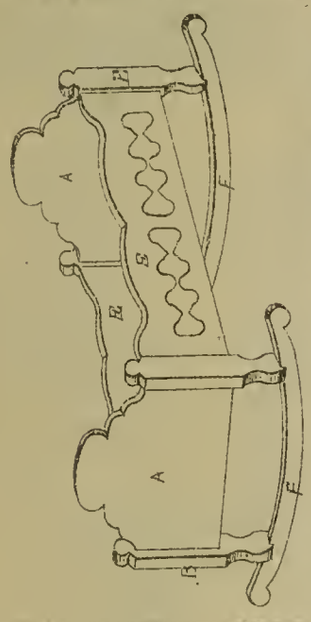
109,048. J. O. POTTER DEVICE FOR OPERATING PLOWS.



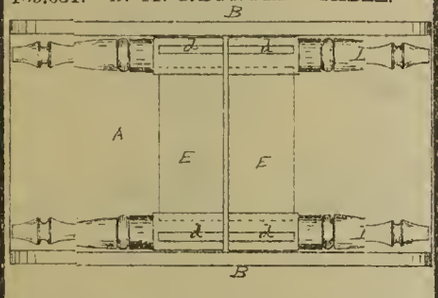
109,049. W. W. PULLIS. TOP OF GAS AND WATER STOP-COCK BOXES.



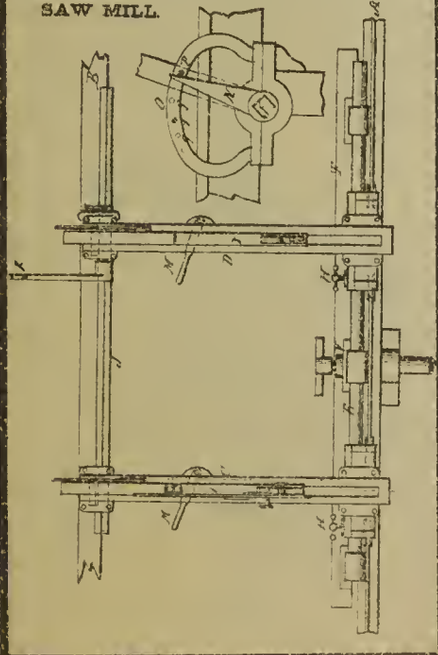
109,050. D. M. REYNOLDS. PORTABLE CRADLE OR CRIB.



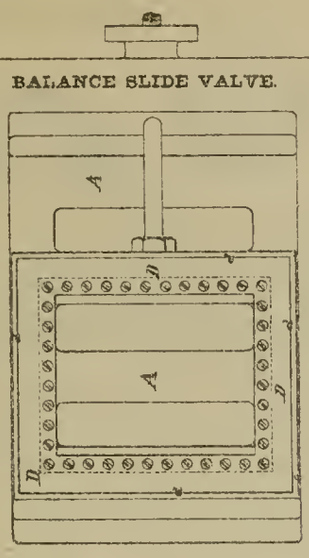
109,051. D. M. REYNOLDS TABLE.



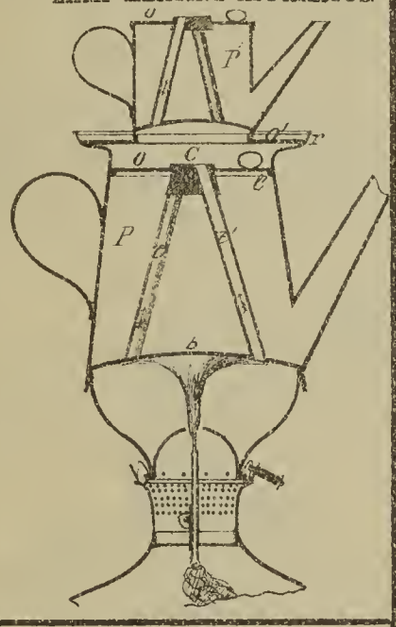
109,052. B. F. AND D. RICHARDSON. SAW MILL.



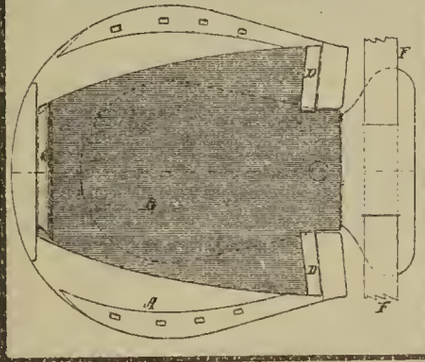
109,053. A. K. RIDER. BALANCE SLIDE VALVE.



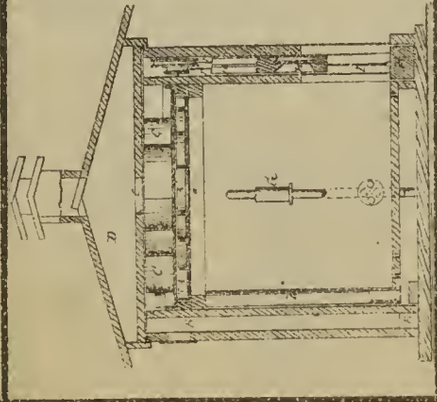
109,054. A. RITTENHOUSE. LAMP HEATING APPARATUS.



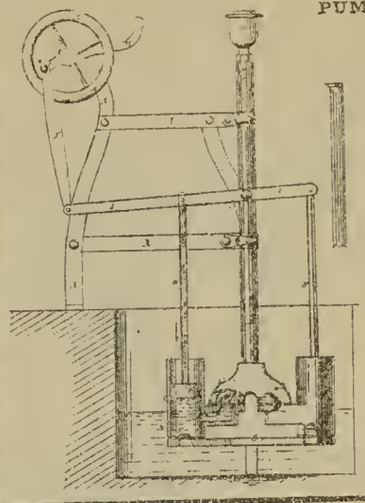
109,055 J. S. ROBERTSON HORSESHOE.



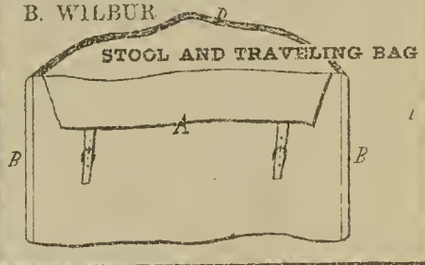
109,056. W. F. ROSS. VENTILATOR.



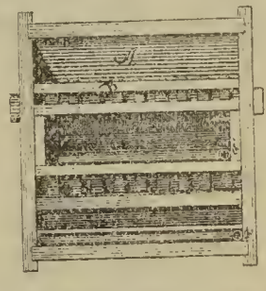
109,057. M. VAN BUREN ROWLEY PUMP.



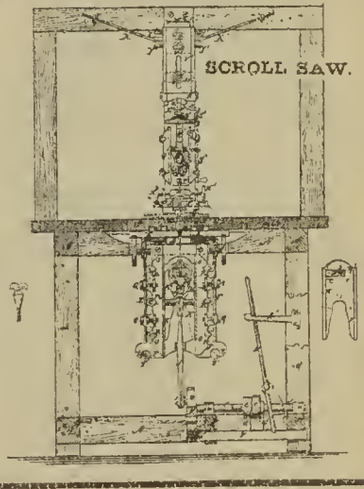
109,058. J. SALISBURY AND B. WILBUR. STOOL AND TRAVELING BAG



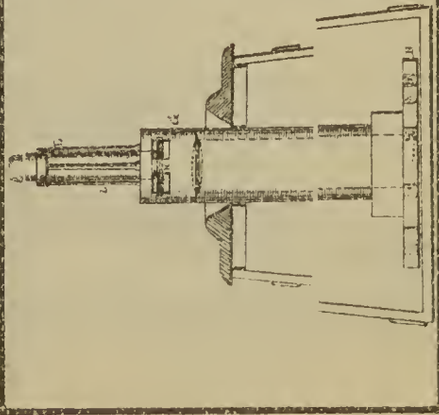
109,059. T. SAMPSON. DYE TUB.



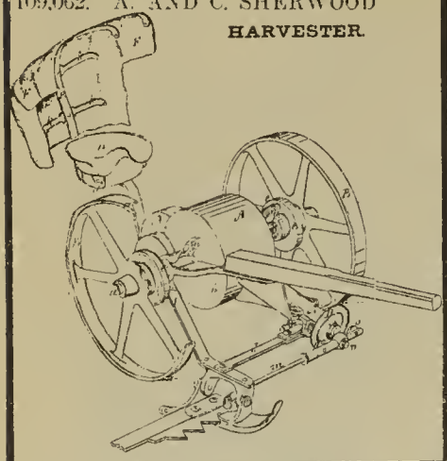
109,060. A. M. SCHILLING. SCROLL SAW.



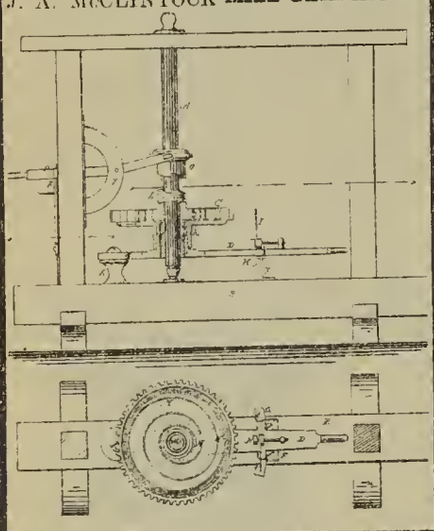
109,061. L. SCOTT. CHURN DASHER.



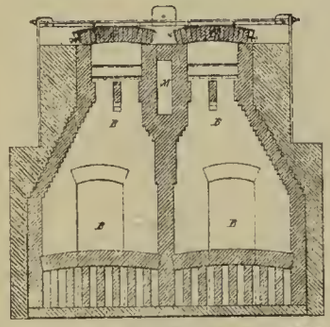
109,062. A. AND C. SHERWOOD HARVESTER.



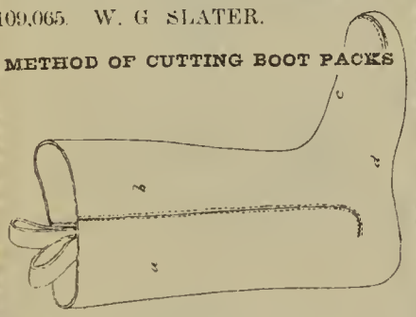
109,063. H. SHOEMAKER AND J. A. McCLINTOCK MILL GEARING.



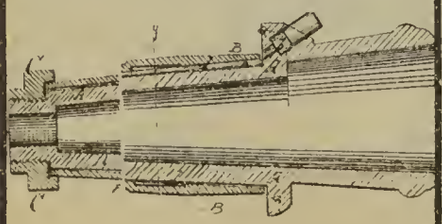
109,064. C. W. SIEMENS. METALLURGIC GAS FURNACE.



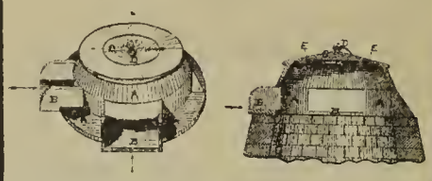
109,065. W. G SLATER. METHOD OF CUTTING BOOT PACKS



109,066. T. SMART, Jr. THIMBLE SKEIN AND BOX FOR VEHICLES

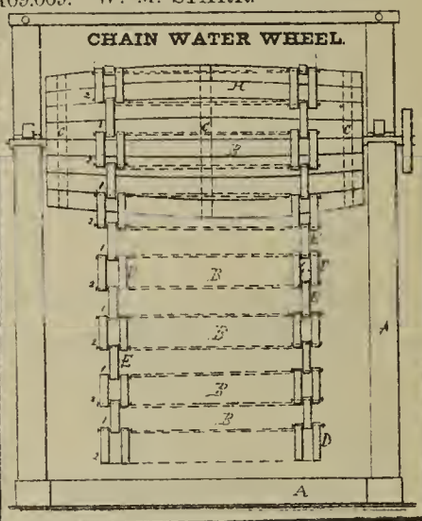


109,067. H. SMITH, Jr. SEWER CATCH BASIN COVER.

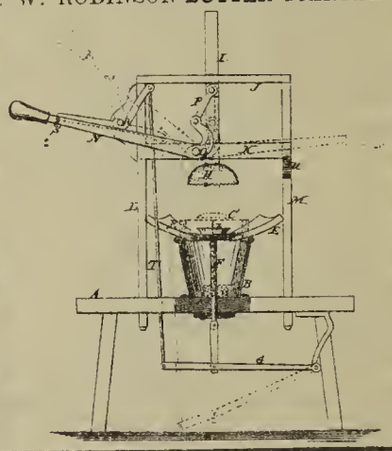


109,068. M. P. SMITH. DRYING AND PRESERVING APPLES.

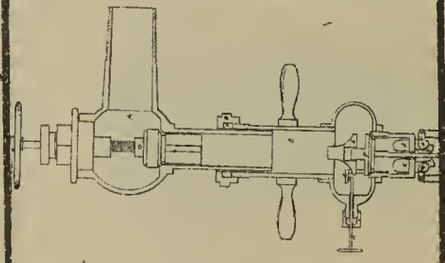
109,069. W. M. STARR. CHAIN WATER WHEEL.



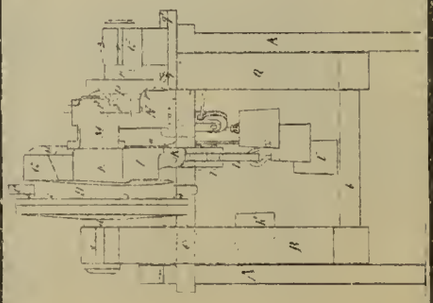
109,070. W. C. STERN AND J. W. ROBINSON BUTTER PRINTER.



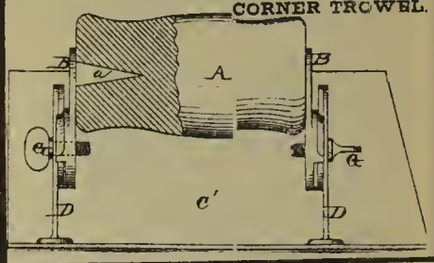
109,071. F. STITZEL. BARREL FILLER.



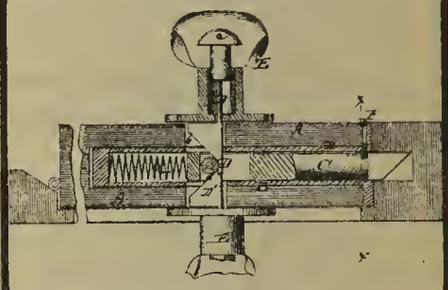
109,072. G. W. STOUT. HAT FINISHING MACHINE.



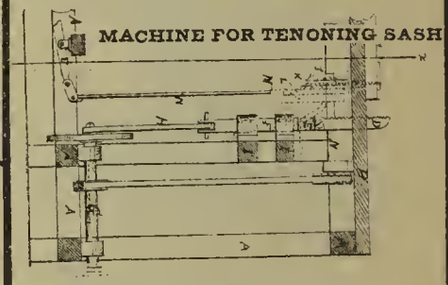
109,073. S. F. STREETER. CORNER TROWEL.



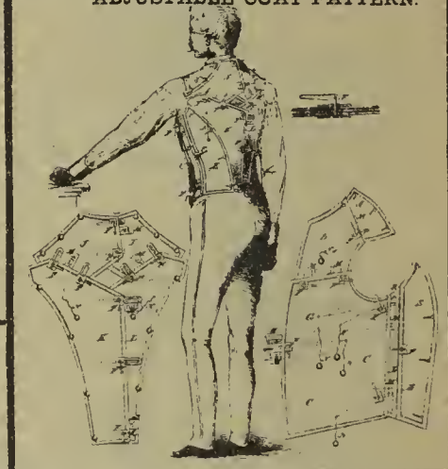
109,074. A. A. STUART. LATCH.



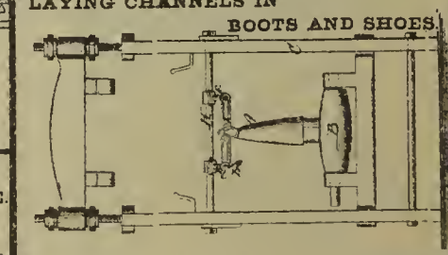
109,075. G. L. SULLIVAN AND E. LIPPINCOTT. RELISHING MACHINE FOR TENONING SASH



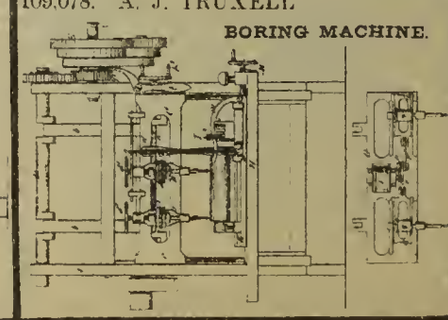
109,076. G. P. SWEEZY. ADJUSTABLE COAT PATTERN.



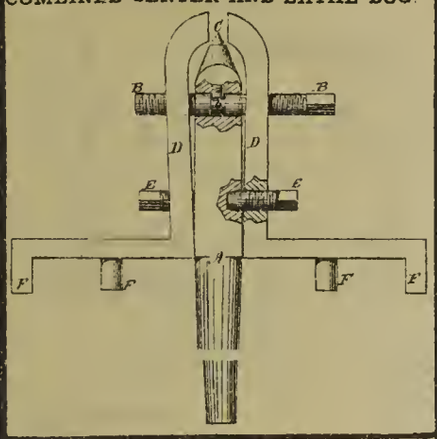
109,077. S. D. TRIPP. MACHINE FOR LAYING CHANNELS IN BOOTS AND SHOES.



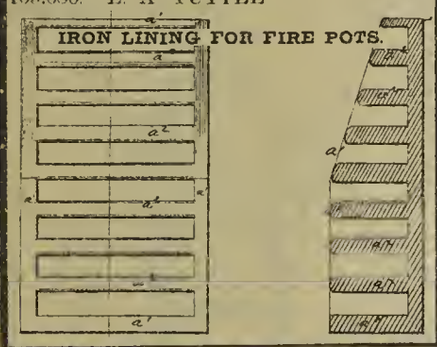
109,078. A. J. TRUXELL. BORING MACHINE.



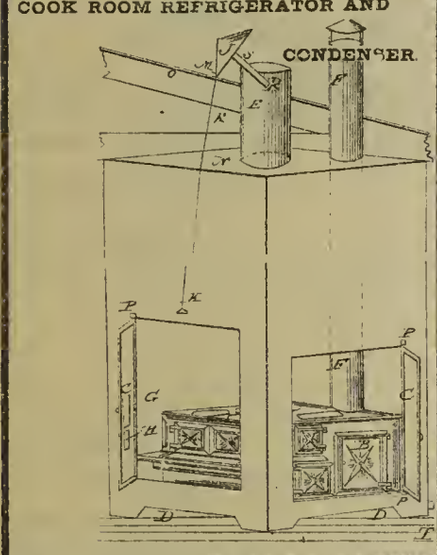
109,079. A. J. TRUXELL.
COMBINED CENTER AND LATHE DOG.



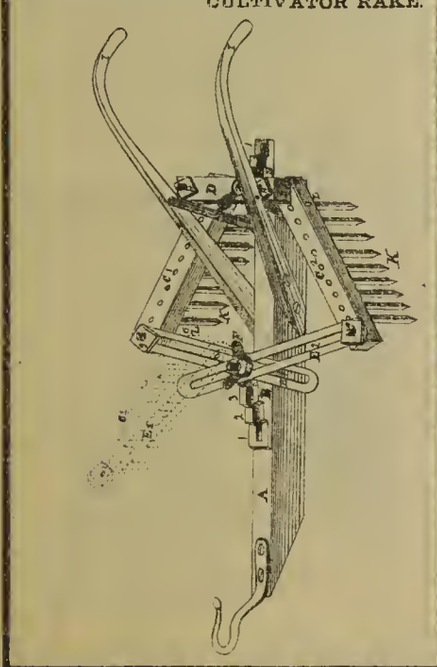
109,080. E. A. TUTTLE
IRON LINING FOR FIRE POTS.



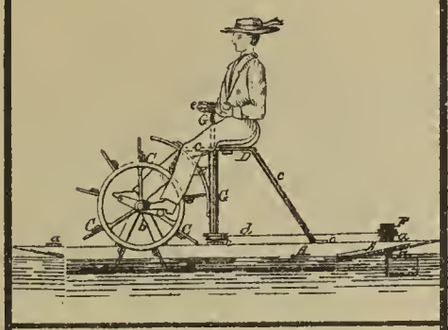
109,081. P. D. VAN DEVENTER.
COOK ROOM REFRIGERATOR AND CONDENSER.



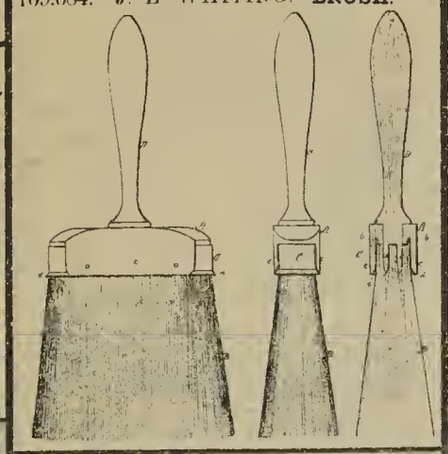
109,082. J. T. VAN WYCK
CULTIVATOR RAKE.



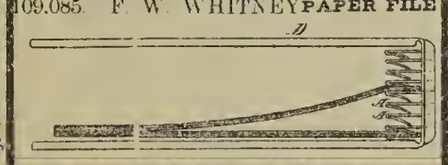
109,083. C. O. WEDERKINCH AND A. STARKWEATHER.
FLOATING VELOCIPEDE.



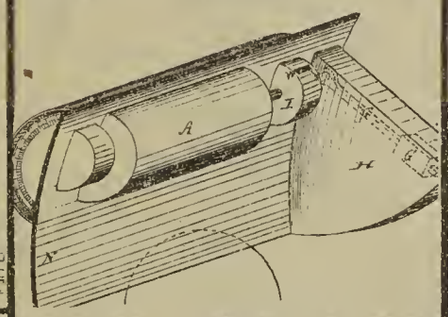
109,084. J. L. WHITING. BRUSH.



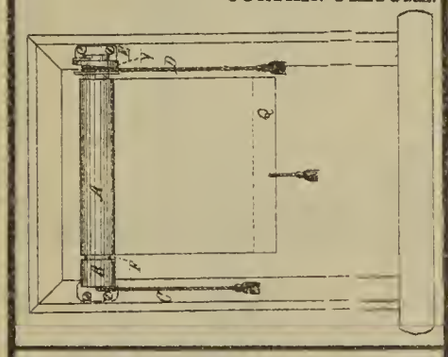
109,085. F. W. WHITNEY PAPER FILE



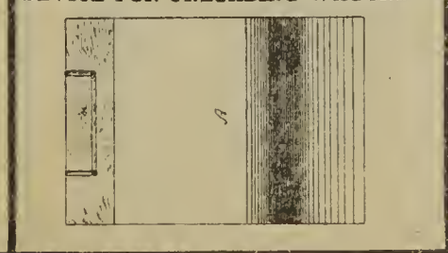
109,086. I. N. WHITTELSEY.
STEAM GAGE AND SAFETY VALVE.



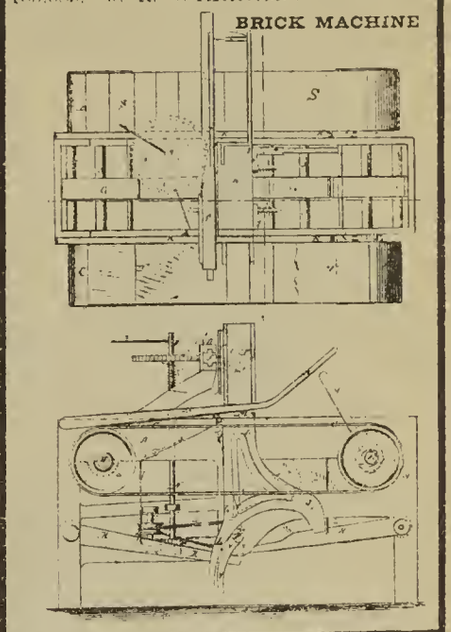
109,087. J. H. WILHELM.
CURTAIN FIXTURE.



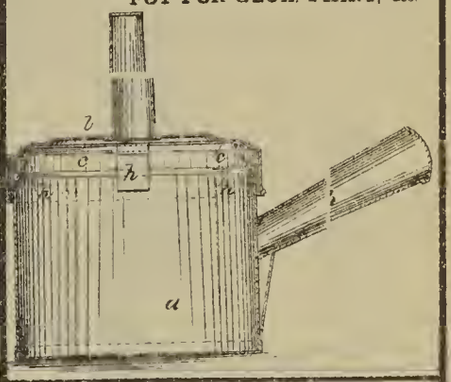
109,088. I. WILLIAMS.
DEVICE FOR UNLOADING WAGONS.



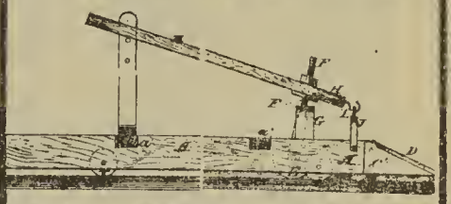
109,089. J. R. WILLIAMS.
BRICK MACHINE



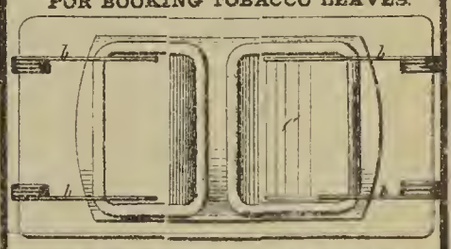
109,090. J. J. WILSON
POT FOR GLUE, PAINT, &c.



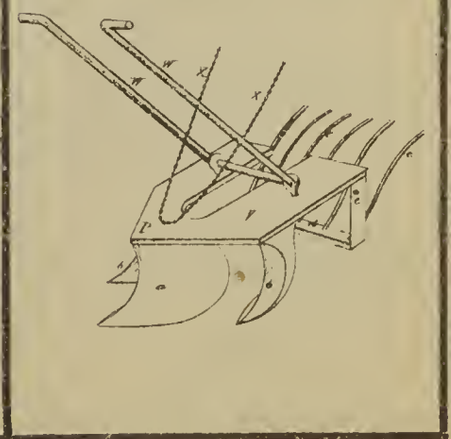
109,091. H. A. WINTER
DITCHING AND GRADING MACHINE.



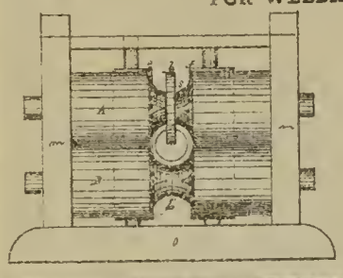
109,092. J. WISE. MACHINE
FOR BOOKING TOBACCO LEAVES.



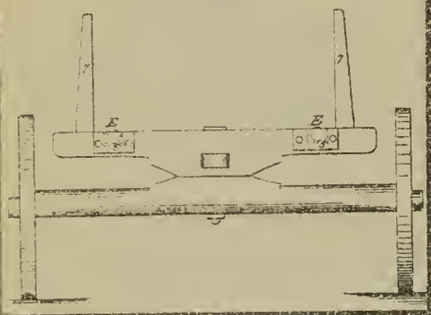
109,093 A. R. WIXOM POTATO DIGGER



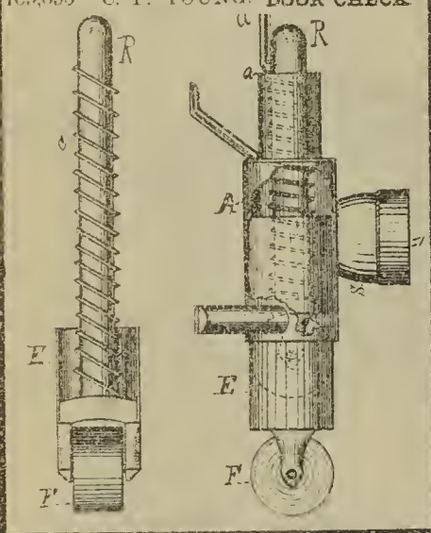
109,094 E. G. WOODWORTH
J. BRAWDY AND F. MERITHEW.
MACHINE FOR BENDING IRON PIPE FOR WELDING.



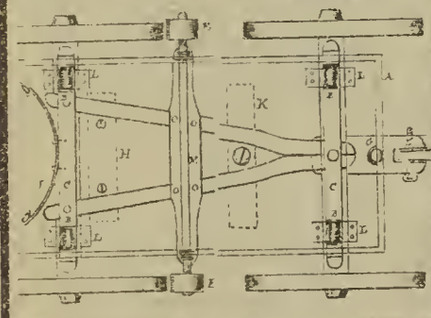
109,095. E. WRIGHT
SPRING FOR VEHICLES.



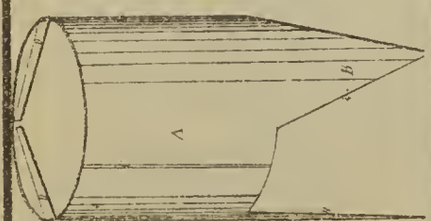
109,096 C. P. YOUNG. DOOR CHECK.



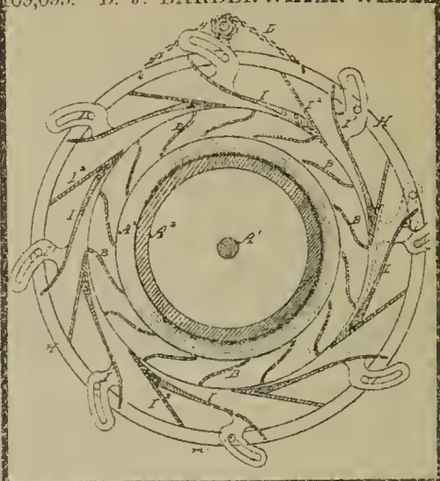
109,097. A. ZINK
SELF ACTING WAGON BRAKE.



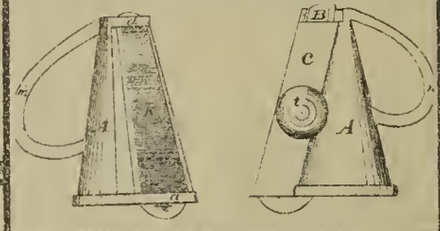
109,098 A. S. ADAMS.
TREE PROTECTOR.



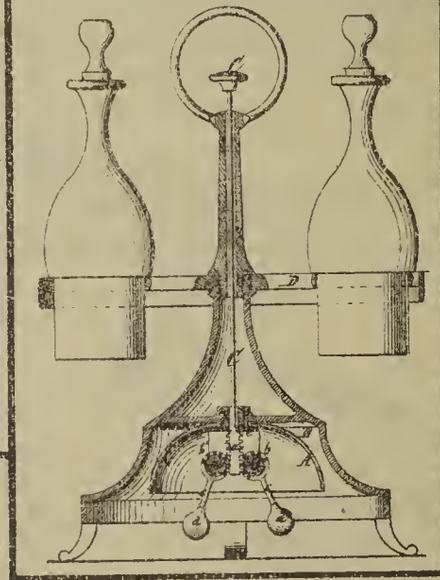
109,099. B. J. BARBER WATER WHEEL



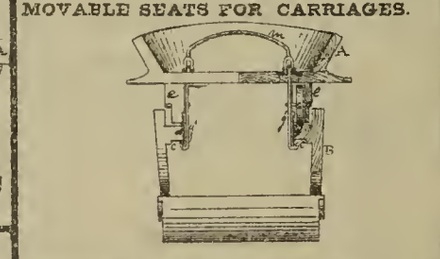
109,100. A. G. BATCHELDER
PENCIL SHARPENER



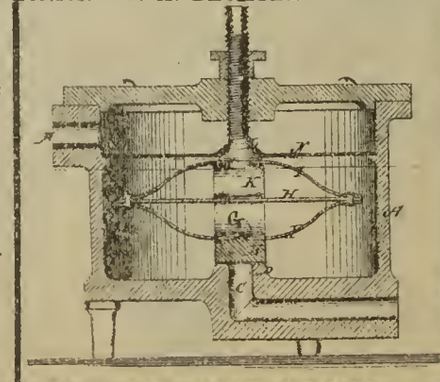
109,101. F. A. BLÄTTERLIEN
CALL BELL AND CASTER STAND



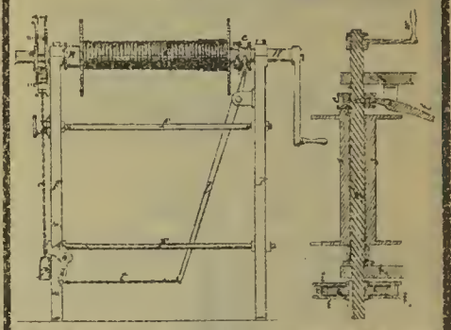
109,102. S. W. BEACH. CLAMPING
MOVABLE SEATS FOR CARRIAGES.



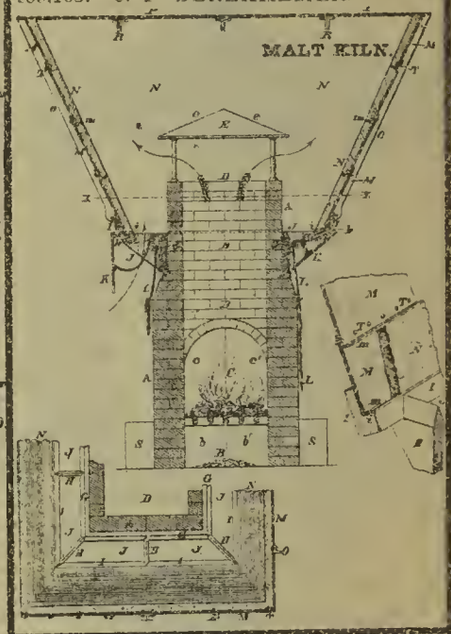
109,103. W. H. BECHTEL STEAM TRAP



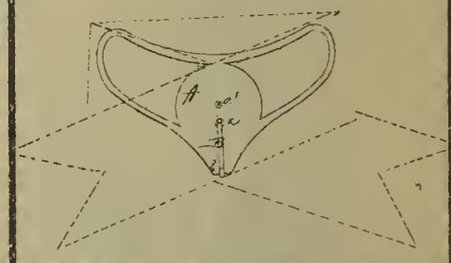
109,104. C. T. BELBIN
OYSTER DREDGE WINDER.



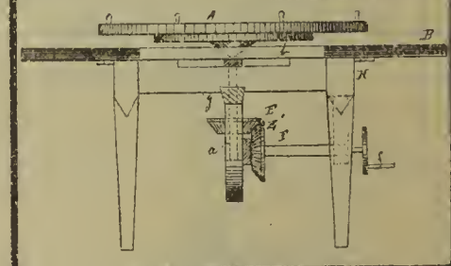
109,105. C. P. BEREKHEMER.
MALT KILN.



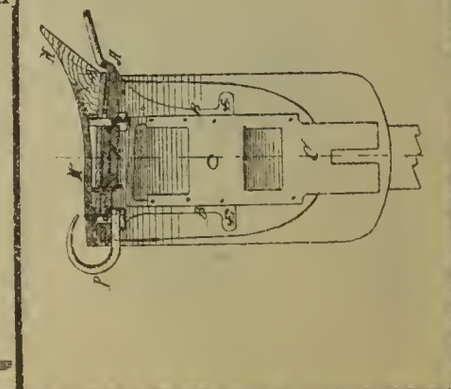
109,106. G. W. BISHOP.
NECK TIE FASTENING



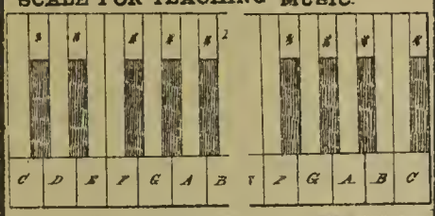
109,107. D. BOARDMAN.
DINING TABLE.



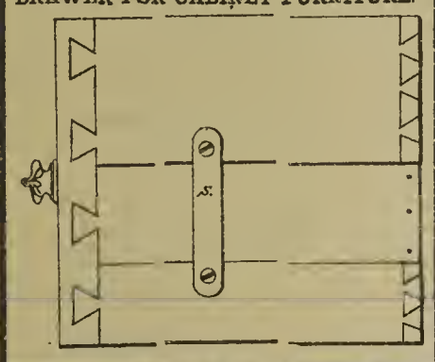
109,108. V. BORST. HARNESS SADDLE.



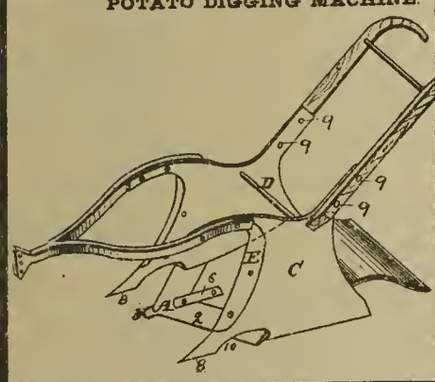
109,109. P. G. BRYAN. **TRANSPOSING SCALE FOR TEACHING MUSIC.**



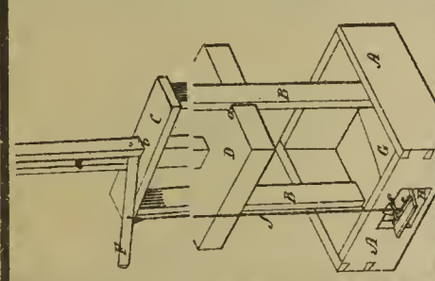
109,110. L. BURNELL. **DRAWER FOR CABINET FURNITURE.**



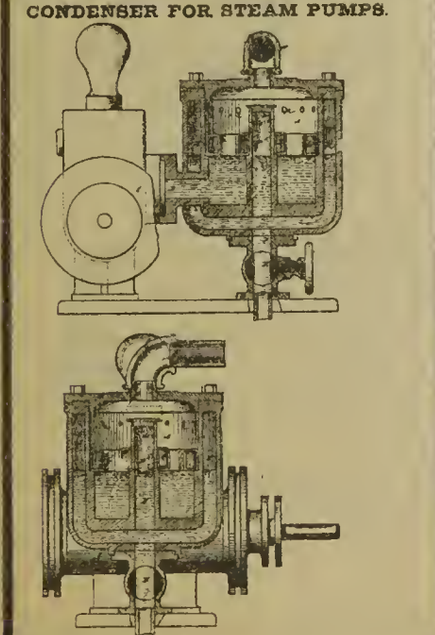
109,111. L. COCHRAN **POTATO DIGGING MACHINE.**



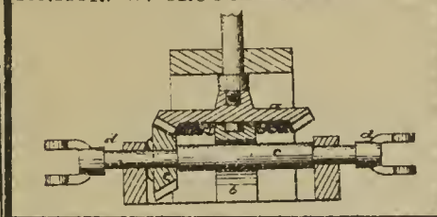
109,112. J. COSOLOWSKY **ANIMAL TRAP.**



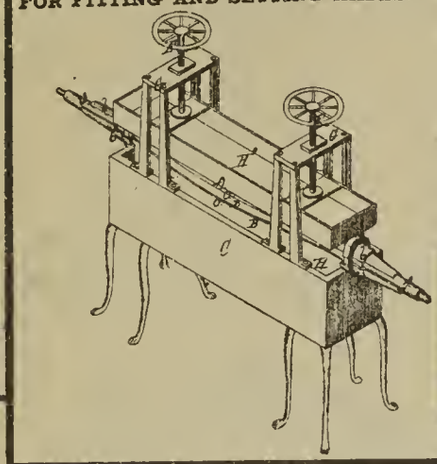
109,113. W. CRAIG AND H. L. BREVOORT **CONDENSER FOR STEAM PUMPS.**



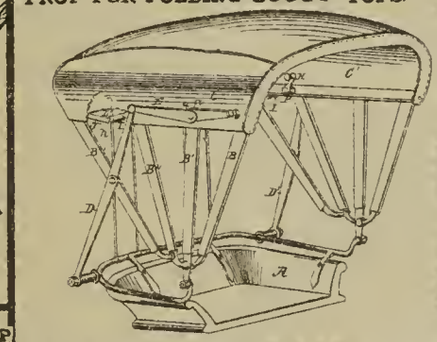
109,114. R. W. CROUSE **HORSE POWER.**



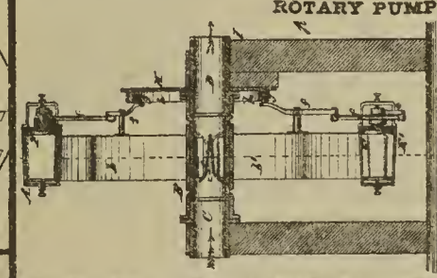
109,115. J. CUNNINGHAM **APPARATUS FOR FITTING AND SETTING AXLES.**



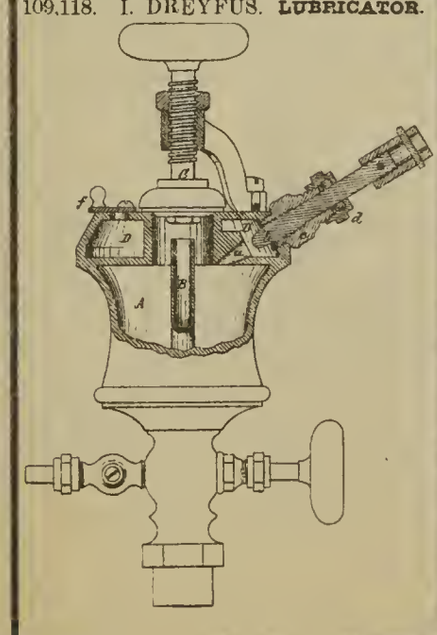
109,116. A. DOM **SUPPORTING PROP FOR FOLDING BUGGY TOPS.**



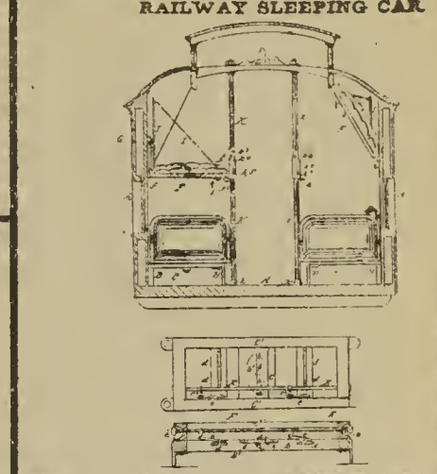
109,117. J. DOYLE AND T. A. MARTIN **ROTARY PUMP.**



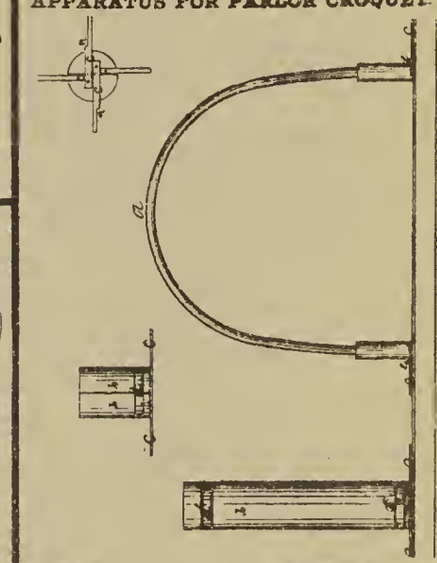
109,118. I. DREYFUS. **LUBRICATOR.**



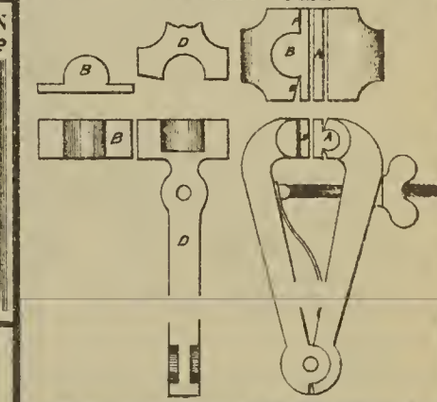
109,119. J. S. DU BOIS **RAILWAY SLEEPING CAR.**



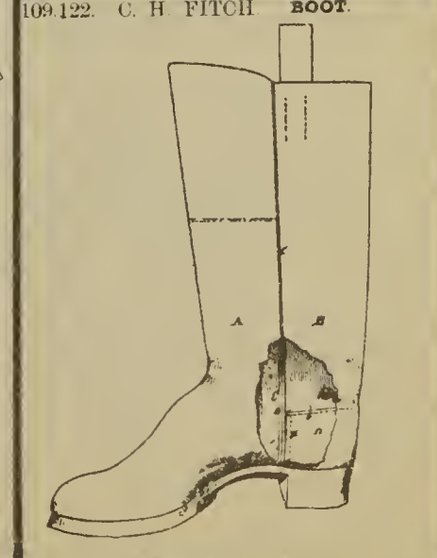
109,120. A. P. EASTMAN. **APPARATUS FOR PARLOR CROQUET.**



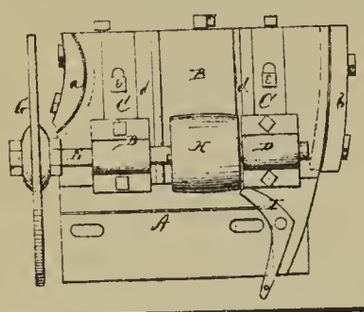
109,121. J. FINDLAY. **VISE.**



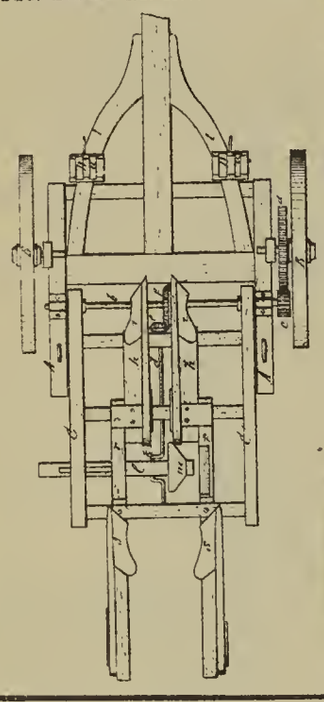
109,122. C. H. FITCH. **BOOT.**



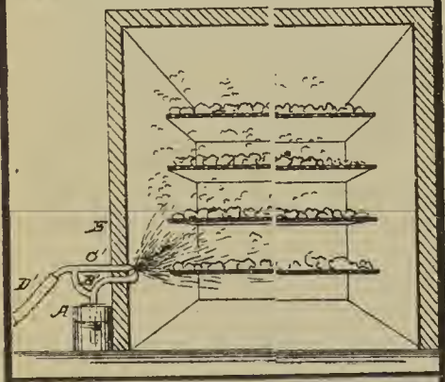
109,123. C. S. GRIFFIN AND J. W. WILKINS
DOVETAILING MACHINE.



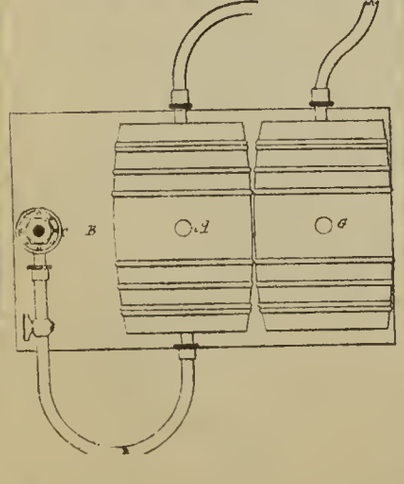
109,124. N. M. HALE.
COTTON SCRAPER AND CHOPPER.



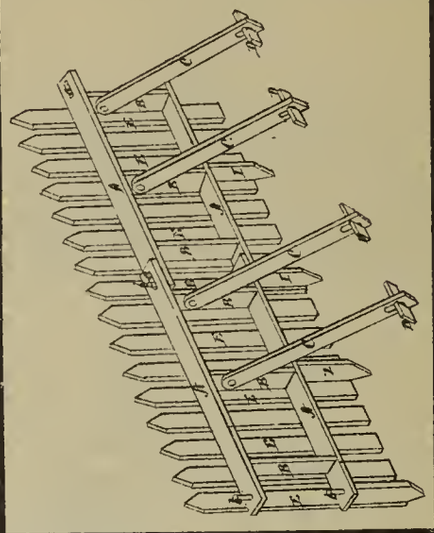
109,125. R. F. HATFIELD.
MANUFACTURE OF WHITE LEAD.



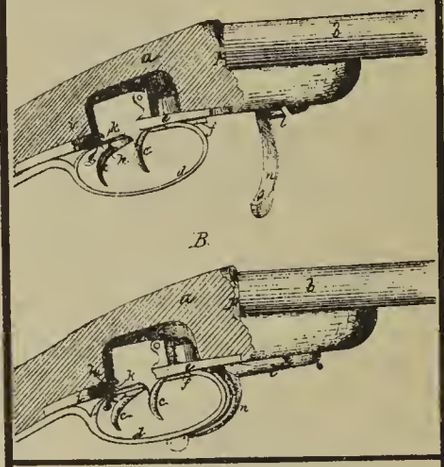
109,126. C. E. HAYNES. **PRESERVING BEER AND ALE ON DRAUGHT.**



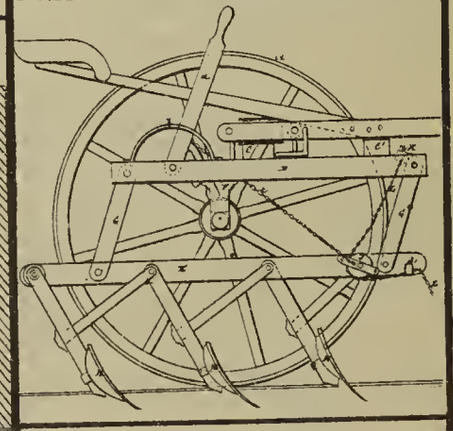
109,127. C. N. HITCHCOCK AND H. P. T. WILSON **FENCE.**



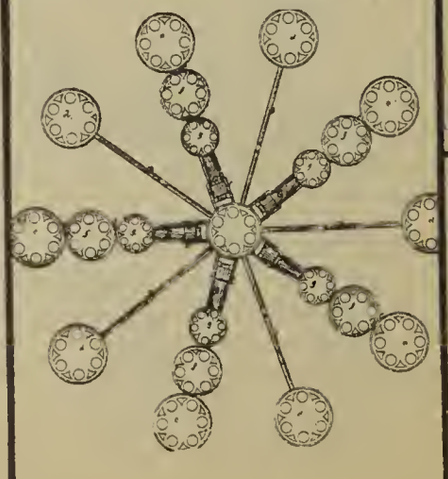
109,128. C. B. HOLDEN **GUN LOCK.**



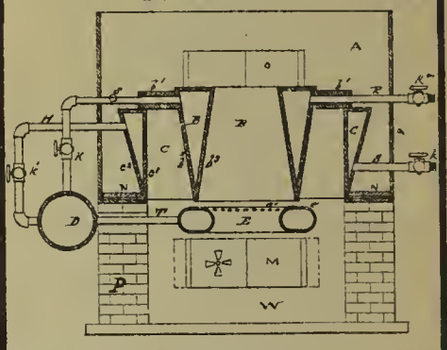
109,129. H. HOWE **CULTIVATOR.**



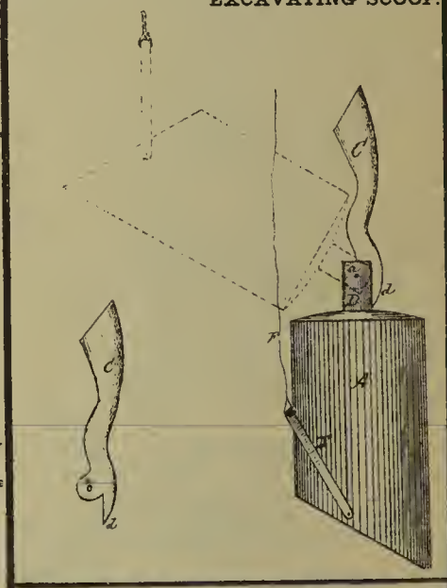
109,130. H. H. KENDRICK
FLOWER STAND.



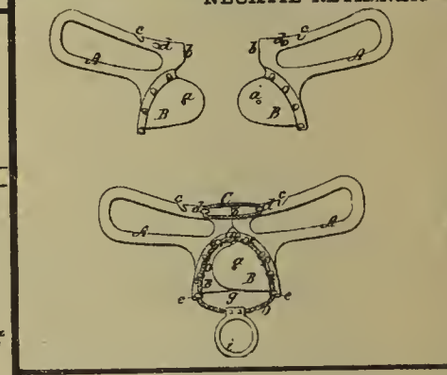
109,131. I. KENDRICK
BURNING HYDROCARBON



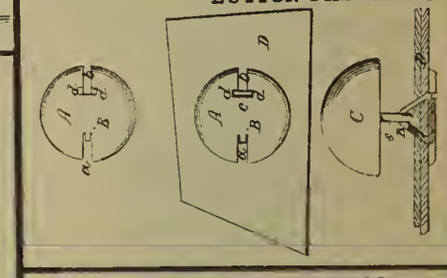
109,132. O. P. KNIFFIN
EXCAVATING SCOOP.



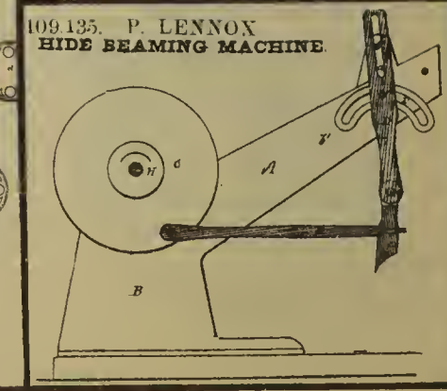
109,133. H. LAURENCE.
NECKTIE RETAINER.



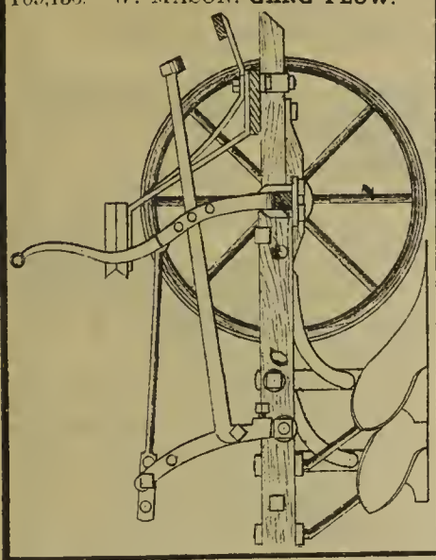
109,134. E. F. LEE
BUTTON FASTENING



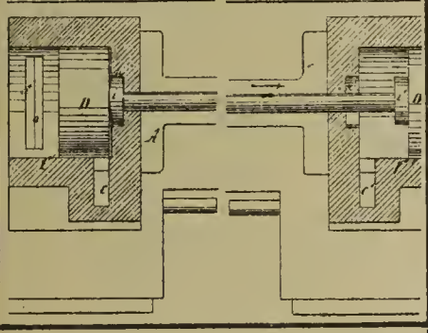
109,135. P. LENNOX
HIDE BEAMING MACHINE.



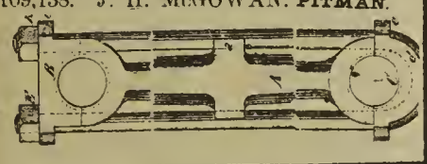
109,136. W. MASON. GANG PLOW.



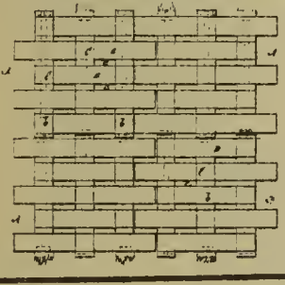
109,137. T. MAY.
VARIABLE CUT-OFF APPARATUS.



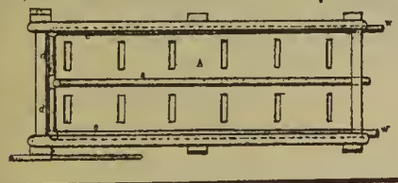
109,138. J. H. McGOWAN. PITMAN.



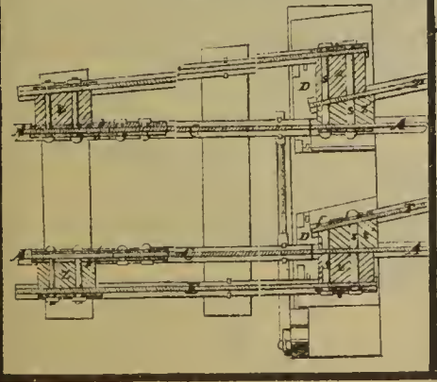
109,139. D. McKENZIE.
WOOD PAVEMENT.



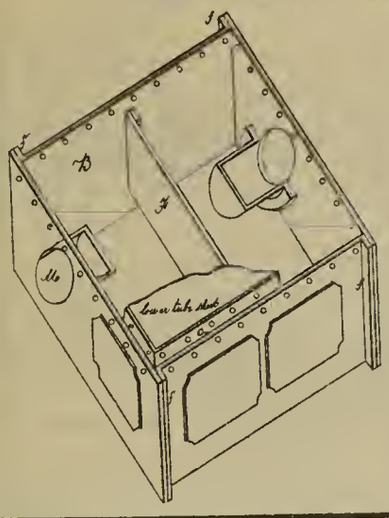
109,140. H. W. MILLAR. CHEESE VAT



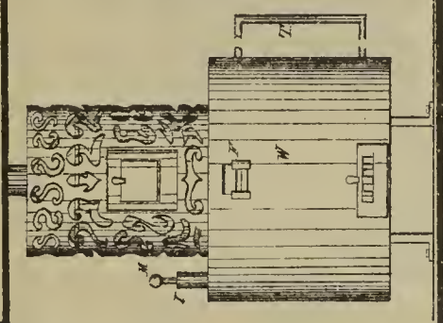
109,141. J. MINER AND S. MERRICK
RAILWAY SWITCH.



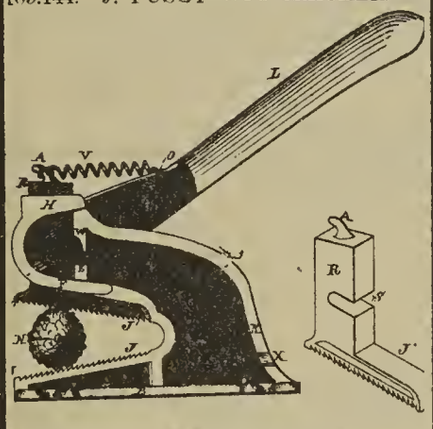
109,142. P. MUNZINGER
CONDENSER FOR GAS WORKS



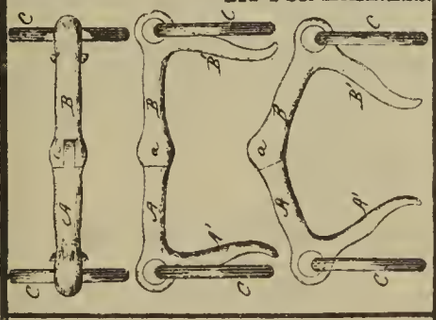
109,143. J. OLIPHANT.
RAILROAD CAR STOVE.



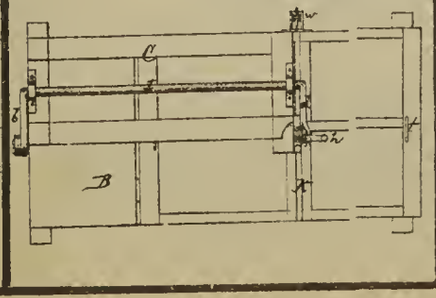
109,144. J. PUSEY NUT CRACKER.



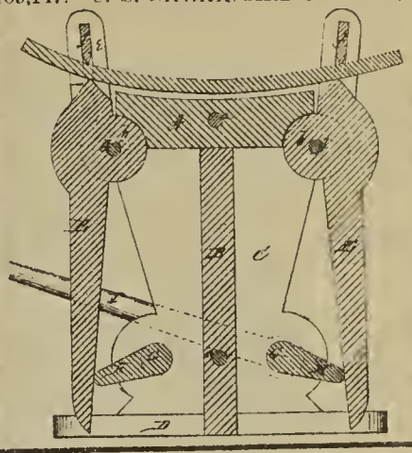
109,145 B. S. ROBERTS
BIT FOR HARNESS.



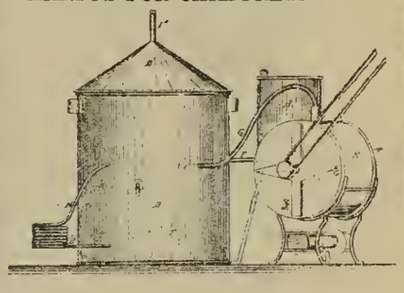
109,146. D. S. SHANABROOK.
SAWING MACHINE.

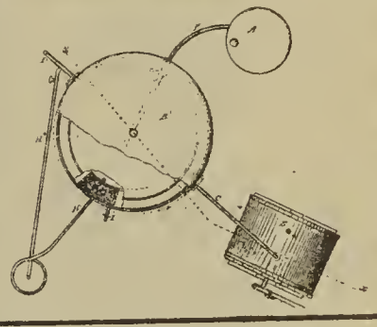


109,147. C. S. SHERK. TIRE SHRINKER.

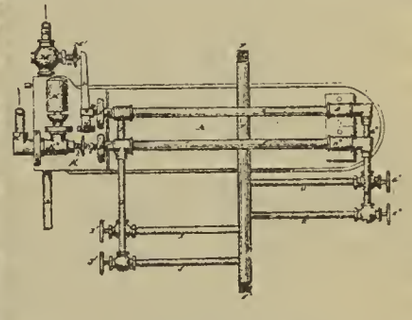


109,148. J. D. SPANG
APPARATUS FOR CARBURETING AIR

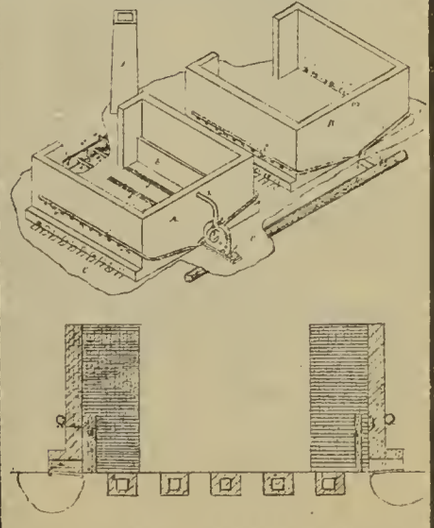




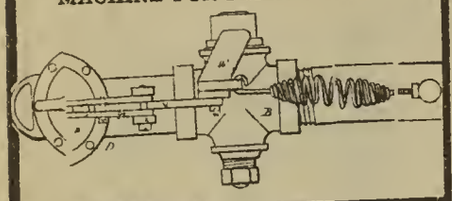
109,149. J. L. STARKEY. BOILER
FEEDER AND LOW WATER DETECTOR.



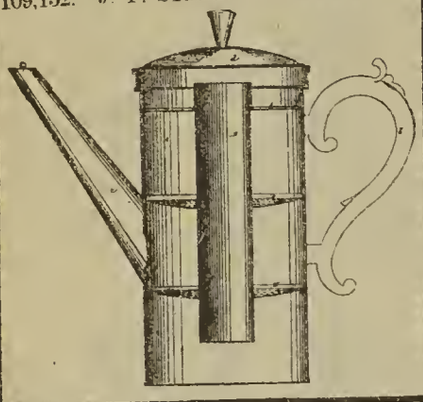
109,150. E. C. STERLING BRICK KILN.



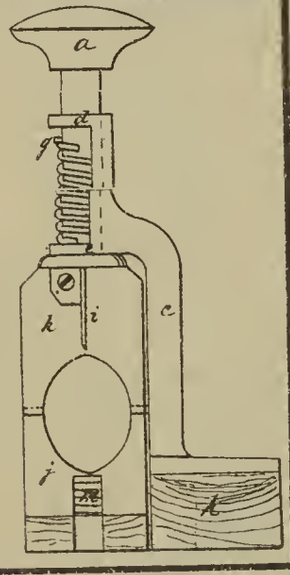
109,151. J. L. STEWART
MACHINE FOR FILLING BARRELS.



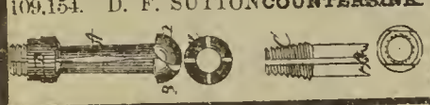
109,152. J. F. STILL. COFFEE POT.



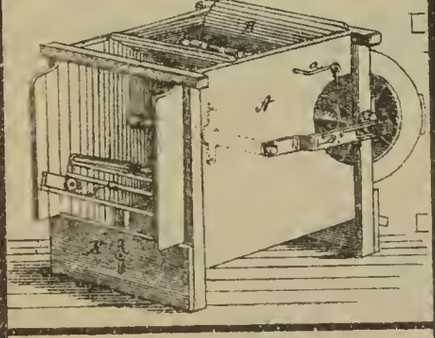
109,153. L. S. STIMSON, dec'd.
H. N. STIMSON, administratrix.
CIGAR CUTTING MACHINE.



109,154. D. F. SUTTON COUNTERSINK.

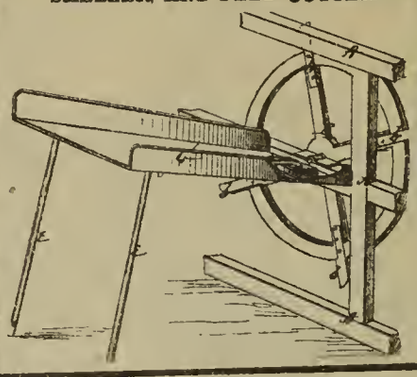


109,155. F. SWIFT AND M. STANDISH
GRAIN SEPARATOR.

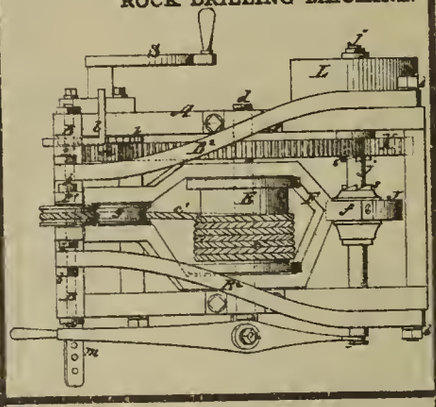


109,156. B. VAN CAMPEN TAYLOR
GARMENT HOLDER.

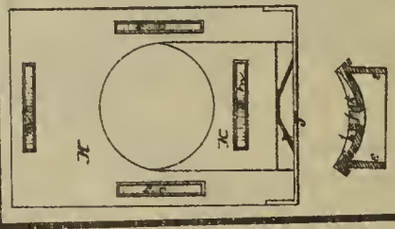
109,157. T. THOMASSON CORN HULLER, SHELLER, AND FEED CUTTER.



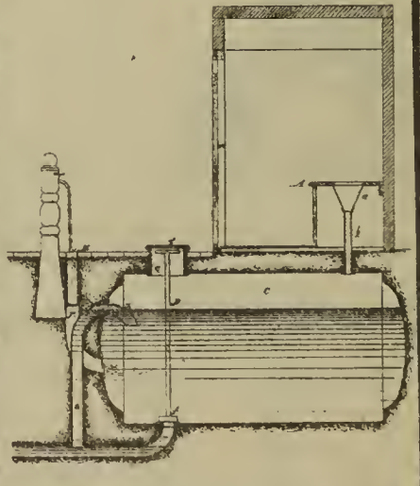
109,158. N. TUCKER, L. WILLIAMS AND H. H. COPPOCK.
ROCK DRILLING MACHINE.



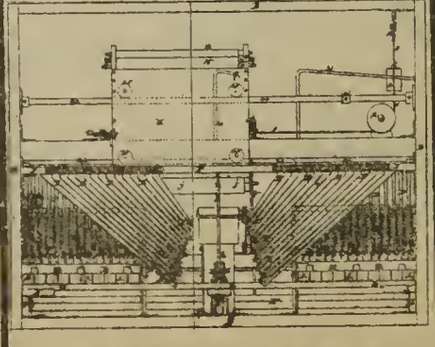
109,159. E. VON JEINSEN
JOURNAL BOX FOR CARS



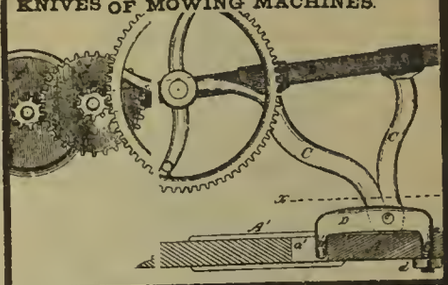
109,160. W. J. WARREN PRIVY.



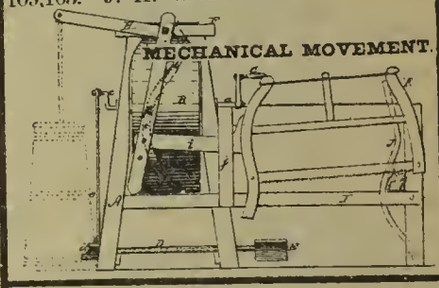
109,161. C. A. WASHBURN
TYPE WRITING MACHINE



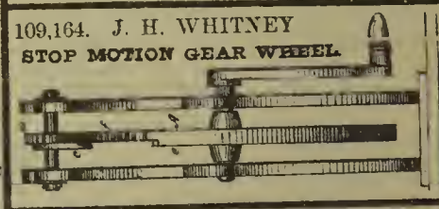
109,162. D. F. WELSH
APPARATUS FOR GRINDING THE KNIVES OF MOWING MACHINES.



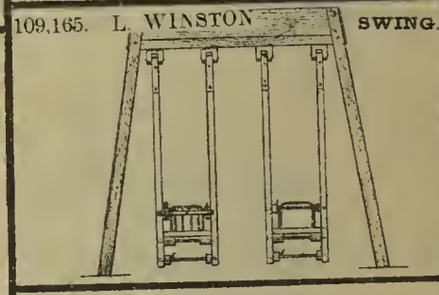
109,163. J. H. WHITNEY.
MECHANICAL MOVEMENT.



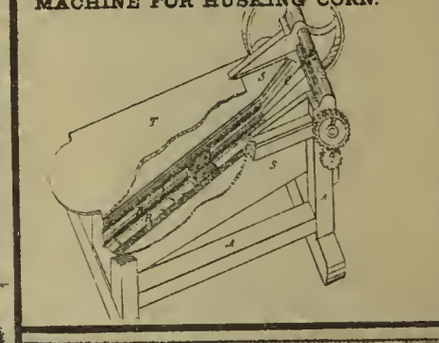
109,164. J. H. WHITNEY
STOP MOTION GEAR WHEEL.



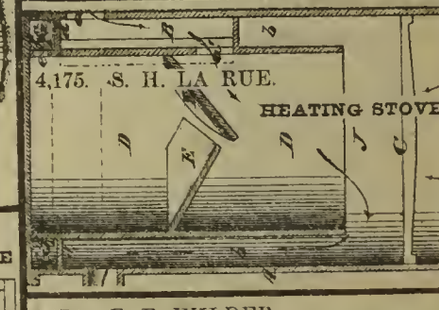
109,165. L. WINSTON SWING.



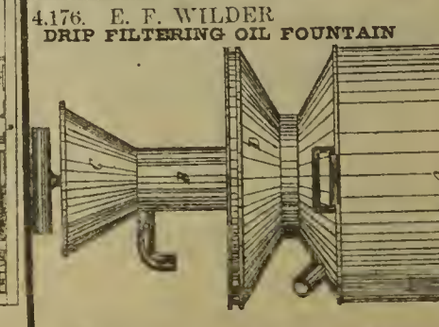
4,174. L. A. ASPINWALL
MACHINE FOR HUSKING CORN.



4,175. S. H. LA RUE.
HEATING STOVE.



4,176. E. F. WILDER
DRIP FILTERING OIL FOUNTAIN



ILLUSTRATIONS OF PATENTS

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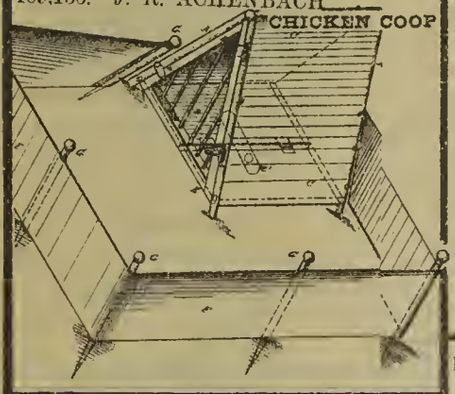
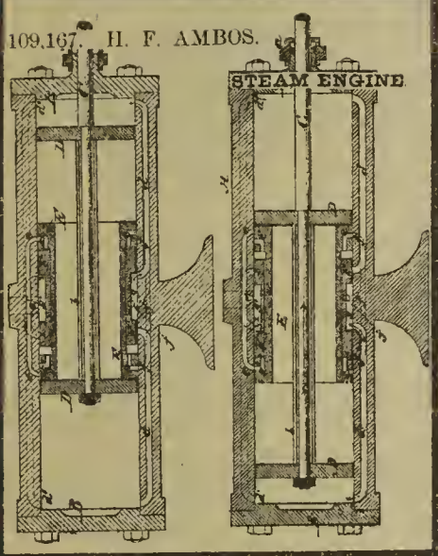
NOVEMBER 15, 1870.

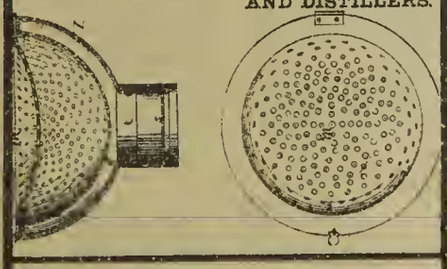
109,166. J. R. ACHENBACH. CHICKEN COOP



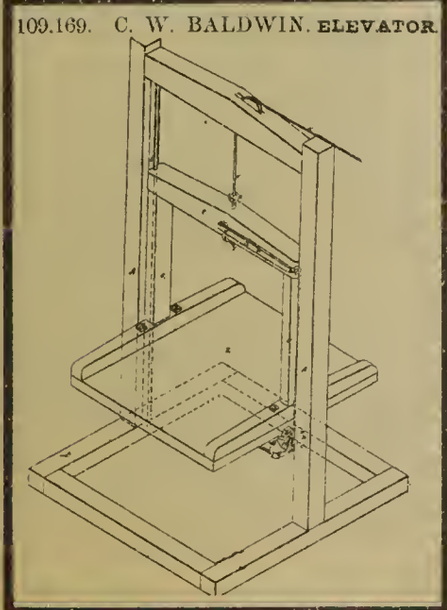
109,167. H. F. AMBOS. STEAM ENGINE



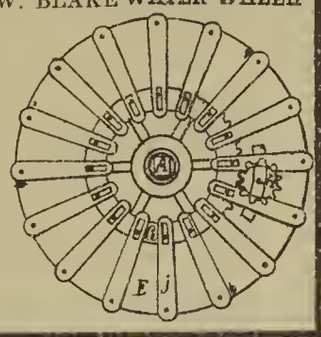
109,168. M. AUGENSTEIN. TESTING INSTRUMENT FOR BREWERS AND DISTILLERS.



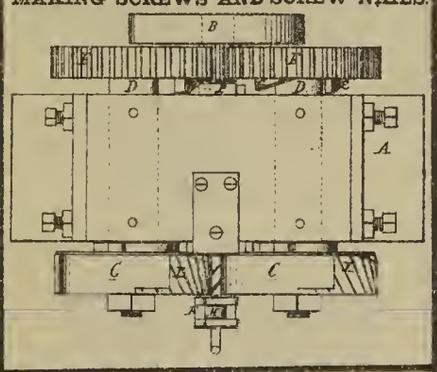
109,169. C. W. BALDWIN. ELEVATOR.



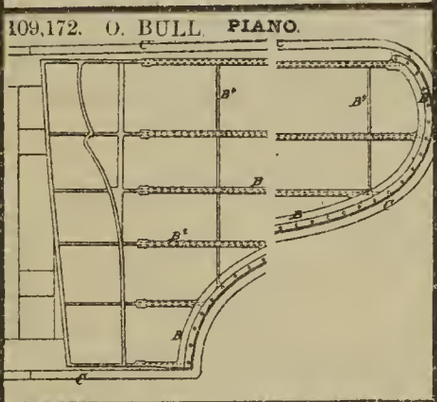
109,170. W. BLAKE. WATER WHEEL.



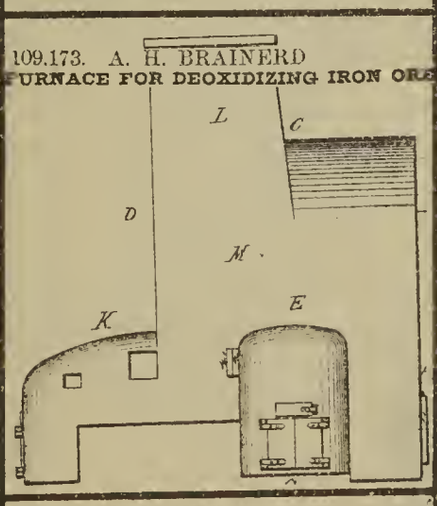
109,171. R. BOEKLEN. MACHINE FOR MAKING SCREWS AND SCREW NAILS.



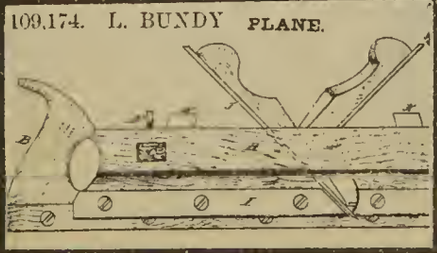
109,172. O. BULL. PIANO.



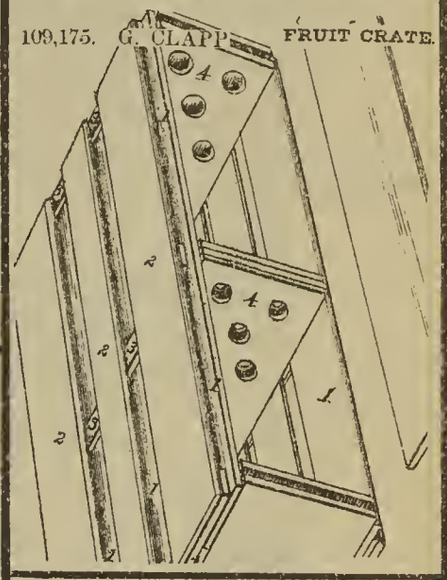
109,173. A. H. BRAINERD. FURNACE FOR DEOXIDIZING IRON ORE.



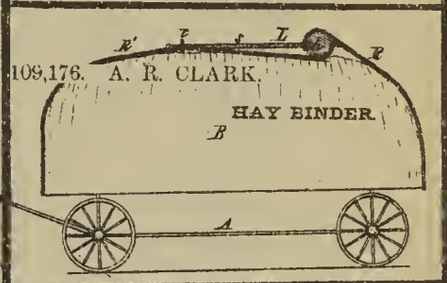
109,174. L. BUNDY. PLANE.



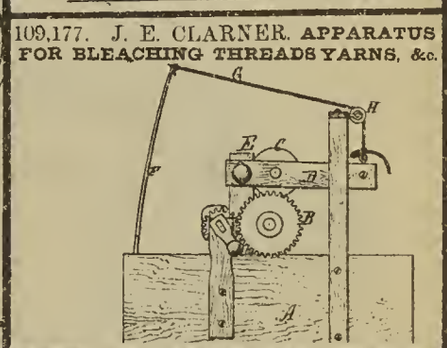
109,175. G. CLAPP. FRUIT CRATE.



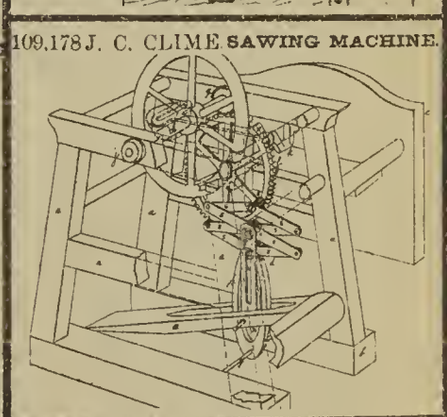
109,176. A. R. CLARK. HAY BINDER.



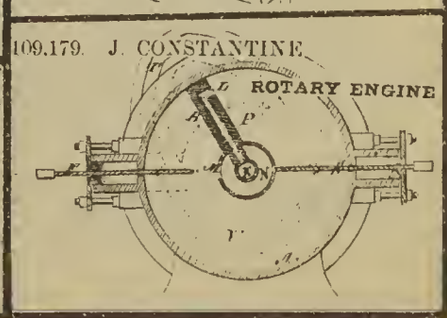
109,177. J. E. CLARNER. APPARATUS FOR BLEACHING THREADS YARNS, &c.



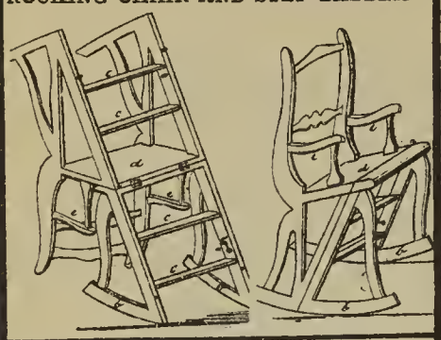
109,178. J. C. CLIME. SAWING MACHINE.



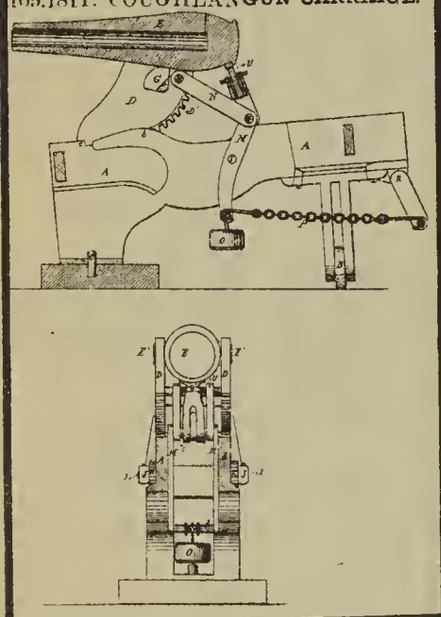
109,179. J. CONSTANTINE. ROTARY ENGINE.



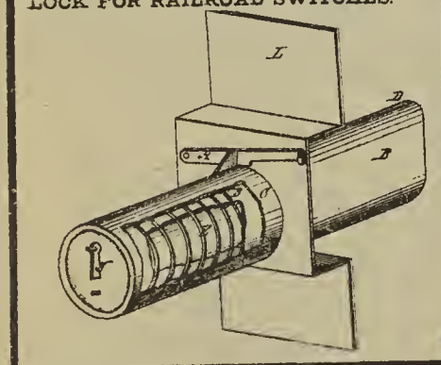
109,180. W. H. COOK
ROCKING CHAIR AND STEP LADDER



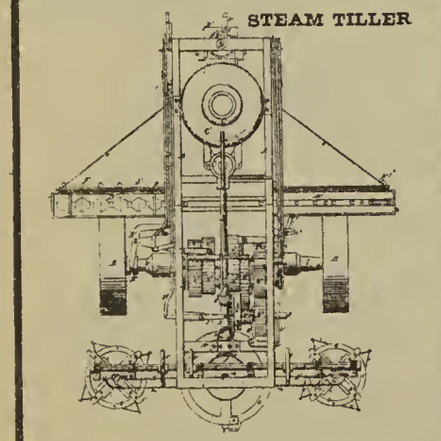
109,181. T. COUGHLAN GUN CARRIAGE.



109,182. A. W. CRAM
LOCK FOR RAILROAD SWITCHES.

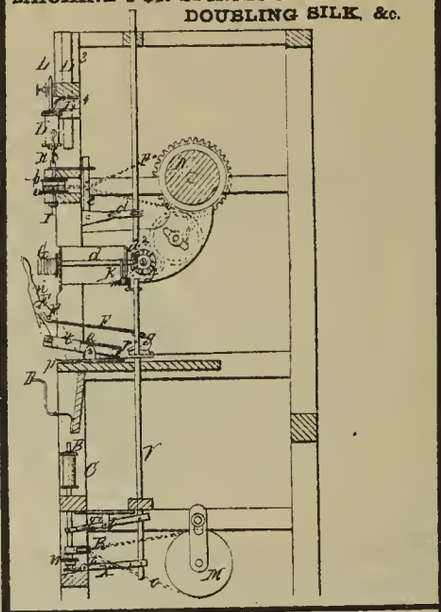


109,183. R. CREUZBAUR.
STEAM TILLER

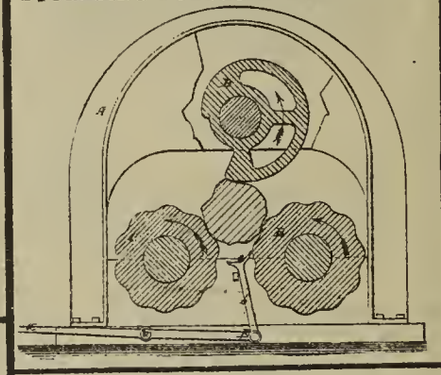


109,184. A. M. CUSHING SHEAVE.

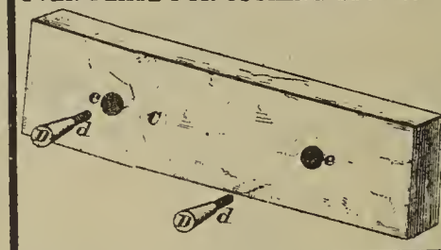
109,185. T. N. DALE, JR., AND G. KRAINK
MACHINE FOR SPINNING AND DOUBLING SILK, &c.



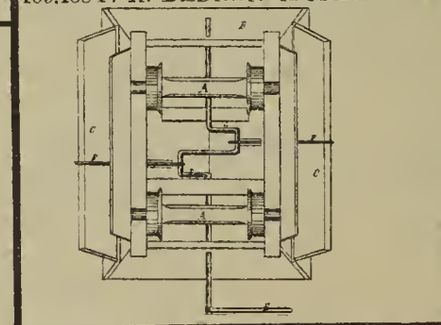
109,186. S. DANKS MACHINE FOR SQUEEZING PUDDLERS' BALLS.



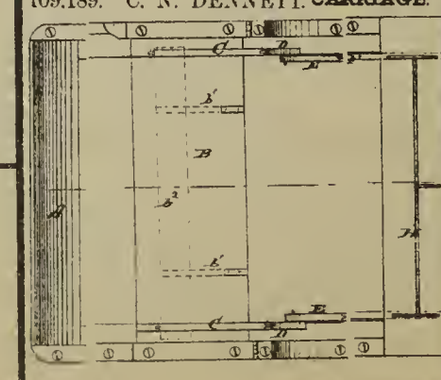
109,187. W. C. DAVIS.
OVEN PLATE FOR COOKING STOVES.



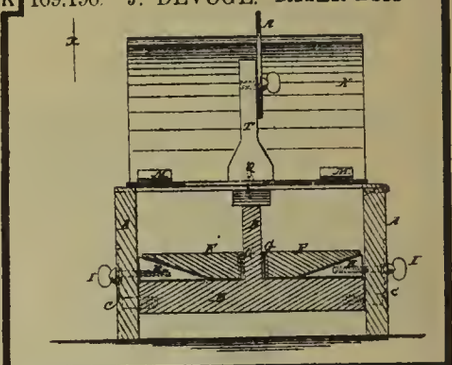
109,188. P. K. DEDERICK DUMPING CAR



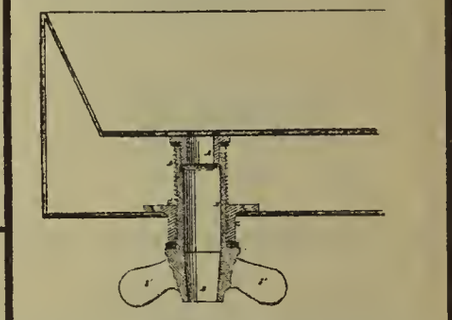
109,189. C. N. DENNETT. CARRIAGE.



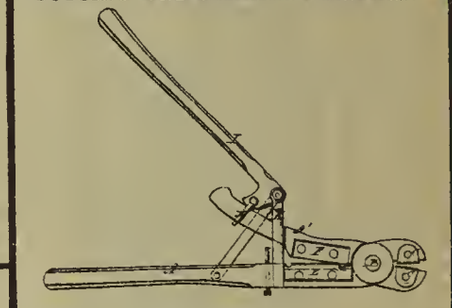
109,190. J. DEVOGE. MITER BOX



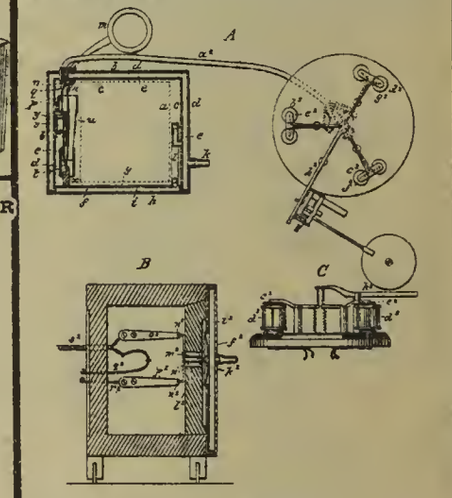
109,191. C. A. DOUGLAS. FAUCET.



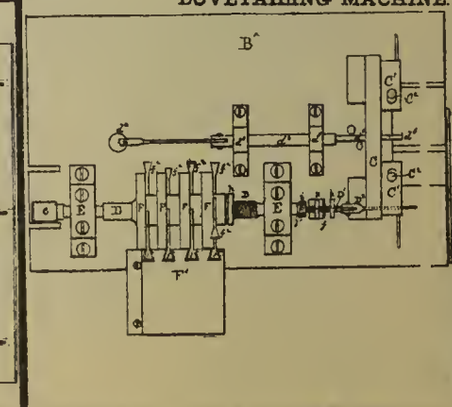
109,192. I. DUBOIS DEVICE FOR CUTTING AND SHEARING METAL.



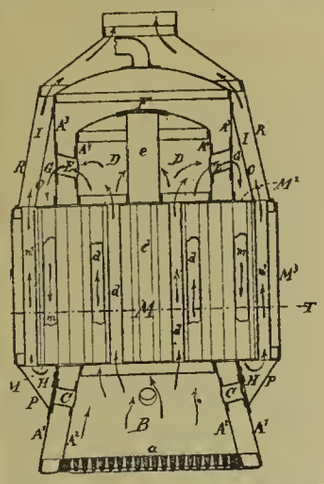
109,193. W. DUNCAN AND C. C. ROWELL. ELECTRO MAGNETIC APPARATUS FOR PROTECTING SAFES.



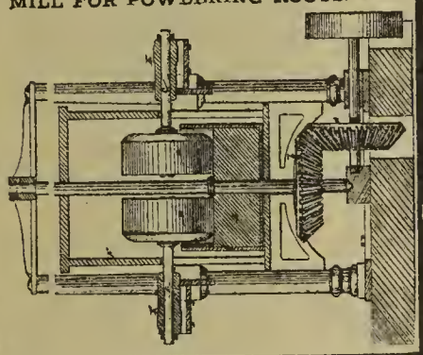
109,194. J. P. FLANDERS
DOVETAILING MACHINE.



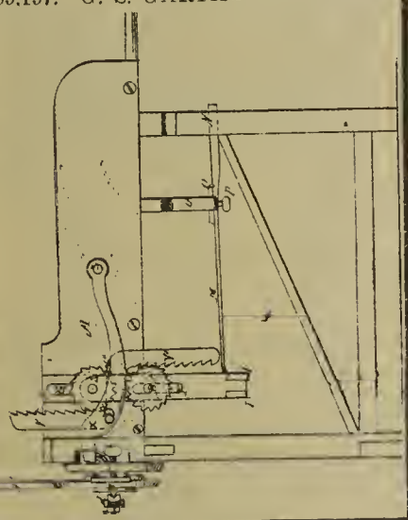
109,195. D. FLYNN. STEAM BOILER



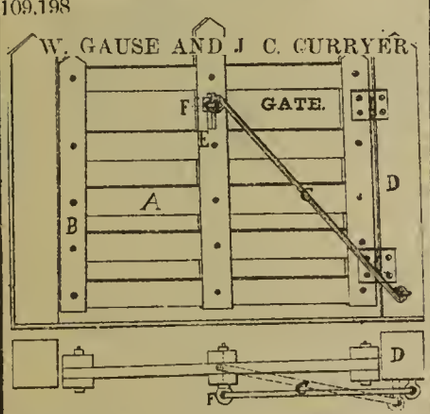
109,196. H. D. GARRISON
MILL FOR POWDERING ROOTS, &c



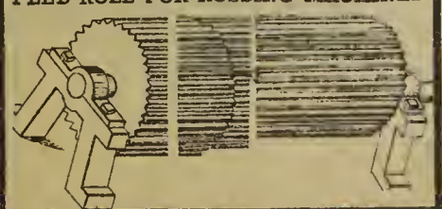
109,197. G. S. GARTH STRAW CUTTER



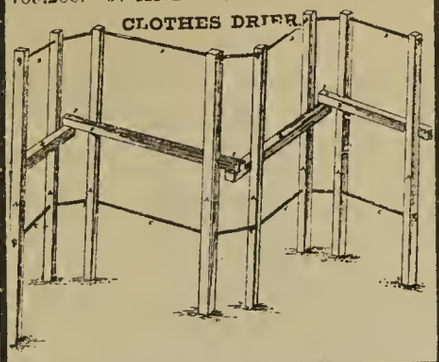
109,198
W. GAUSE AND J. C. CURRYER



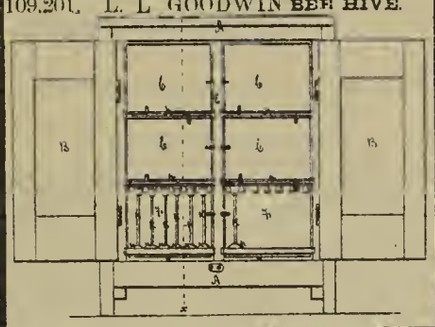
109,199. C. GILPIN
FEED ROLL FOR ROSSING MACHINES



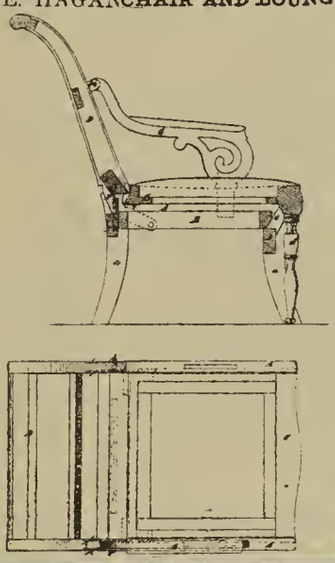
109,200. J. AND W. GNAU
CLOTHES DRIER



109,201. L. L. GOODWIN BEE HIVE.

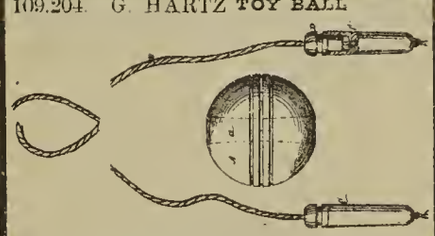


109,202 E. HAGAN CHAIR AND LOUNGE.



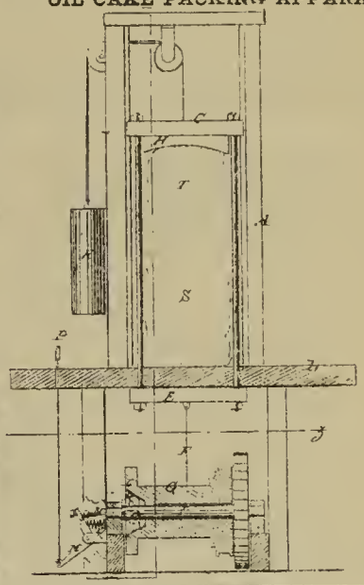
109,203. H. H. HANMER
HORSE AND CATTLE LINIMENT.

109,204. G. HARTZ TOY BALL

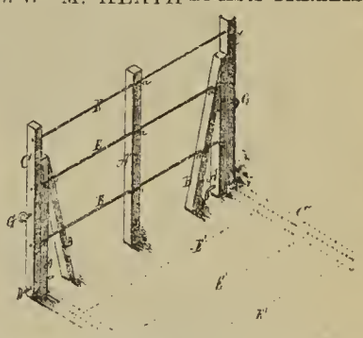


109,205. H. C. HAVEMEYER AND D. P. BURDON ATTACHING DICING STONES TO WHEELS FOR POLISHING LEATHER.

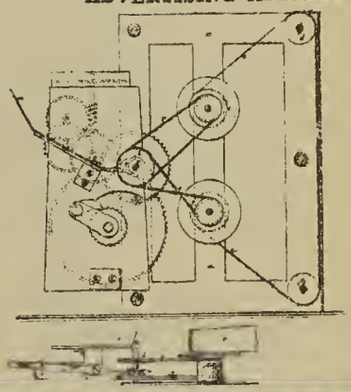
109,206. W. HAWES.
OIL CAKE PACKING APPARATUS



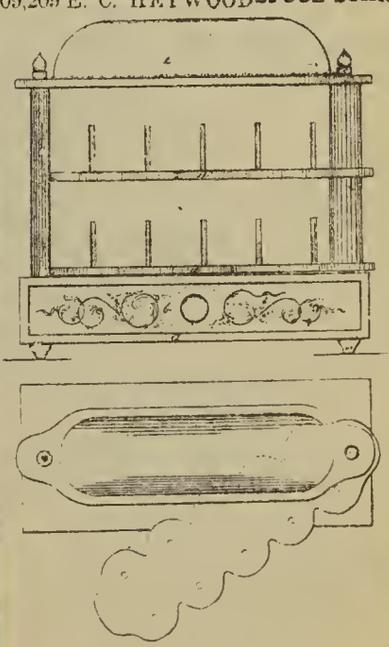
109,207 W. M. HEATH GRAPE TRELLIS.



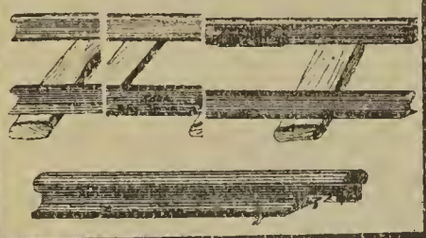
109,208. W. HEBDON
ADVERTISING APPARATUS.



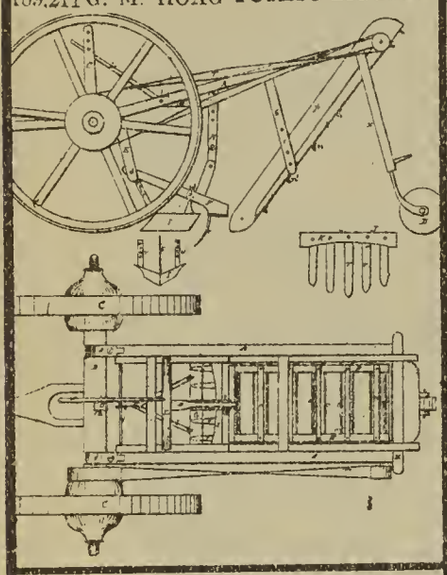
109,209 E. C. KEYWOOD SPOOL STAND.



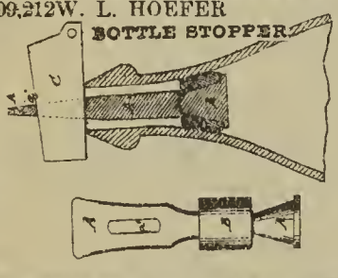
109,210 N. HILL. RAILWAY RAIL JOINT.



109,211 G. M. HOAG POTATO DIGGER.

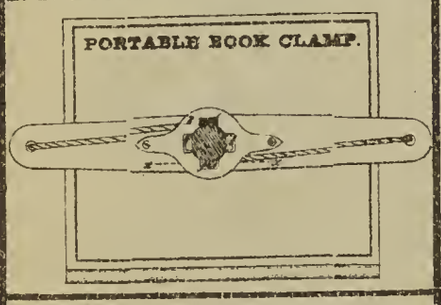


109,212 W. L. HOEFER BOTTLE STOPPER.

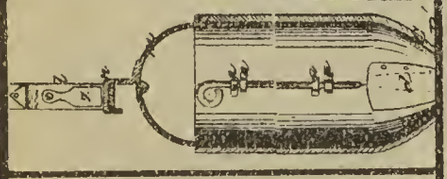


109,213. C. W. HOLBROOK AND E. F. BUTLER.

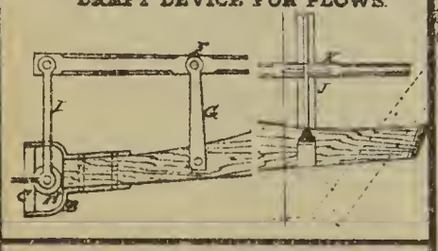
PORTABLE BOOK CLAMP.



109,214. J. AND T. J. INGLES. WELL AUGER.

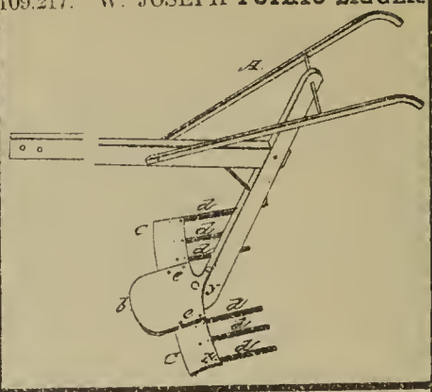


109,215. C. L. JACKSON ADJUSTABLE DRAFT DEVICE FOR PLOWS.

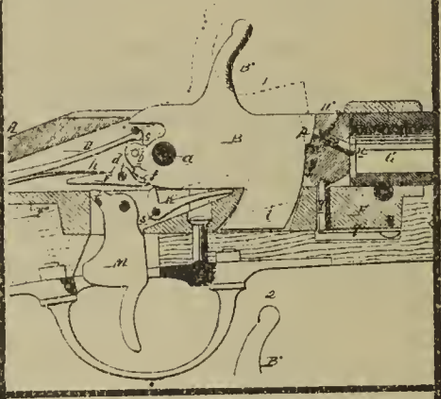


109,216. A. J. JENKINS. MEDICAL COMPOUND FOR CURE OF RHEUMATISM.

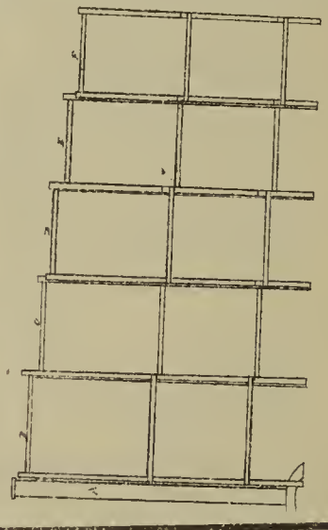
109,217. W. JOSEPH POTATO DIGGER.



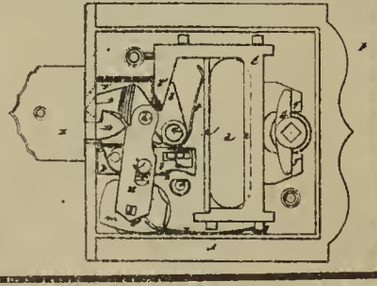
109,218. B. F. JOSLYN BREECH LOADING FIRE ARM.



109,219. J. KASPAR. CLOTHES DRIER.

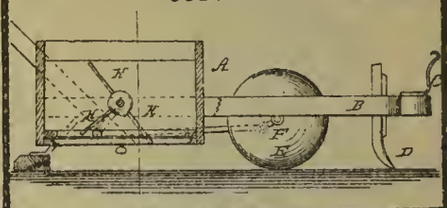


109,220. E. J. KEHOE. COMBINED LOCK AND LATCH FOR SLIDING DOORS.



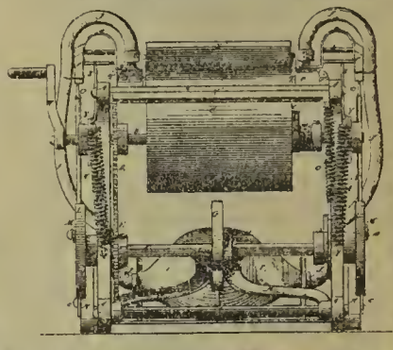
109,221. J. R. KENNETT SCAFFOLD BRACKET FOR ROOFING.

109,222. J. C. KING COTTON SEED PLANTER.

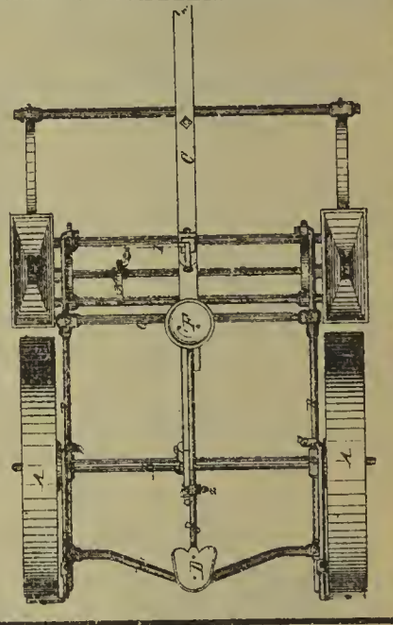


109,223. SUSPENDED.

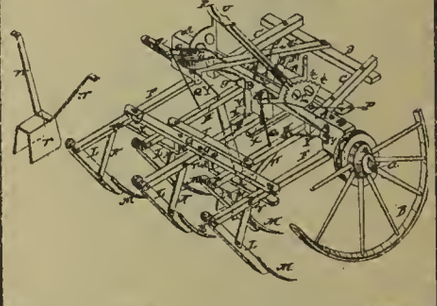
109,224. M. E. KNIGHT PAPER FEEDING MACHINE.



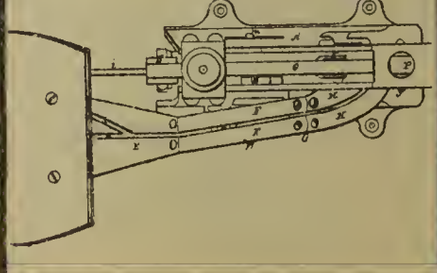
109,225. H. KOELLER. CORN PLANTER.



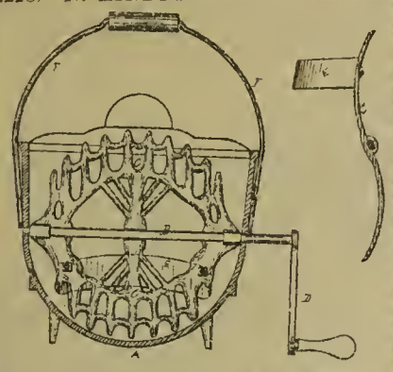
109,226. L. LEHMANN COMBINED AGRICULTURAL IMPLEMENT.



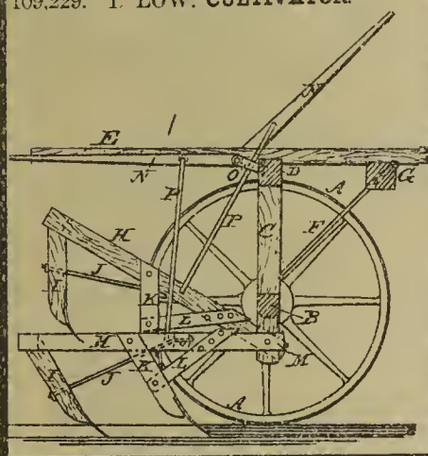
109,227. J. H. LEWIS. MACHINE FOR ATTACHING STUDS OR TUBULAR SHANKED BUTTONS TO FABRICS.



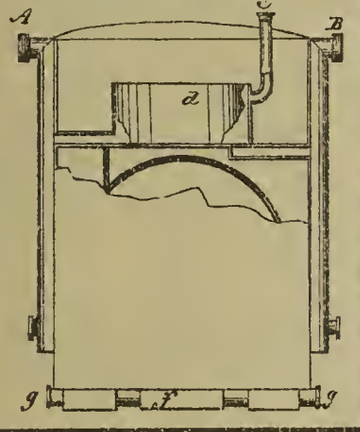
109,228. N. LINDEN COFFEE ROASTER



109,229. I. LOW. CULTIVATOR.

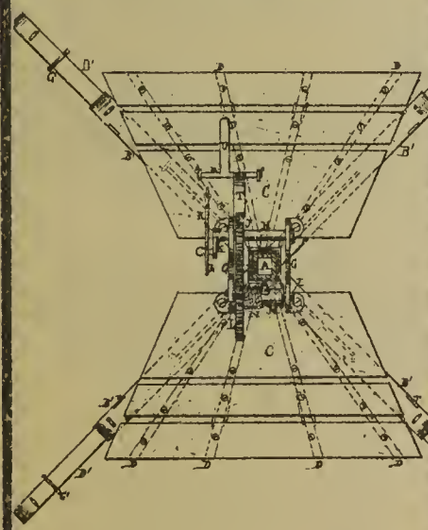


109,230. G. LOWEN AND S. H. GOLDTHORP DRY GAS METER

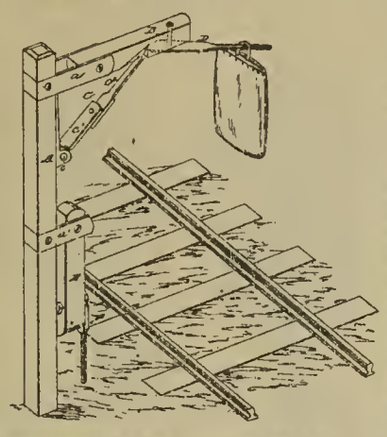


109,231 P. M. McGILL ARTIFICIAL FUEL

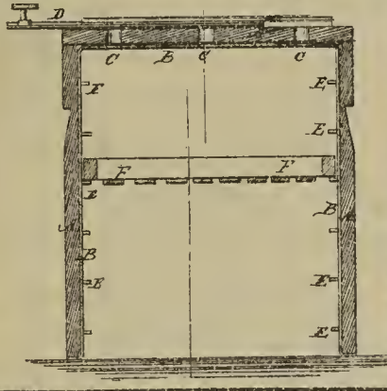
109,232. G. McKENZIE ELEVATOR.



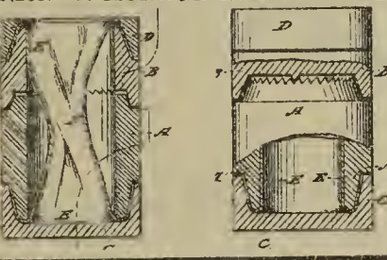
109,233. J. B. McLAIN DEVICE FOR DELIVERING MAIL BAGS TO CARS.



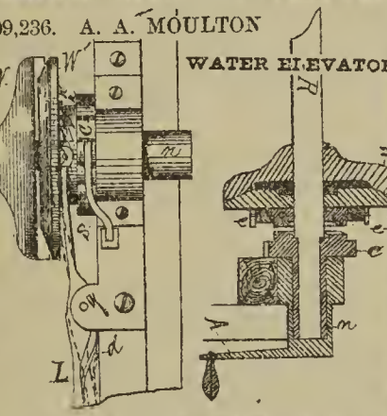
109,234. J. P. MILLER. DRIER.



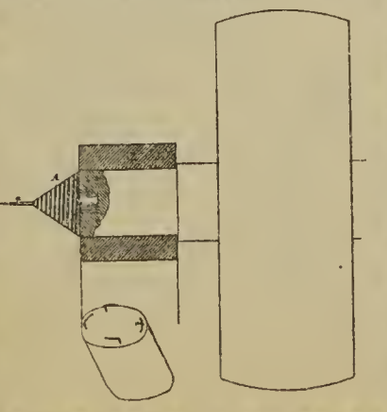
109,235. J. MONAGHAN MATCH BOX.



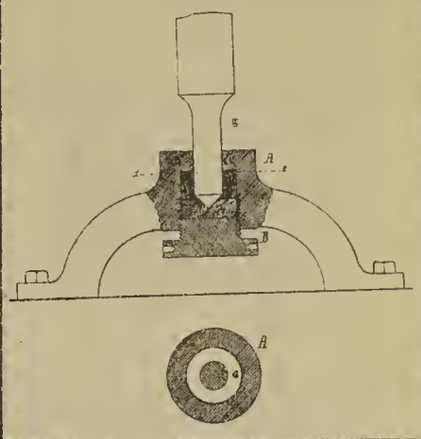
109,236. A. A. MOULTON WATER ELEVATOR.



109,237. E. D. MURFEY MODE OF PREVENTING THE HEATING OF AXLES OR JOURNALS

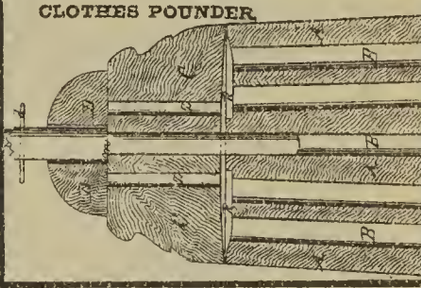


109,238. E. D. MURFEY SPINDLE STEP

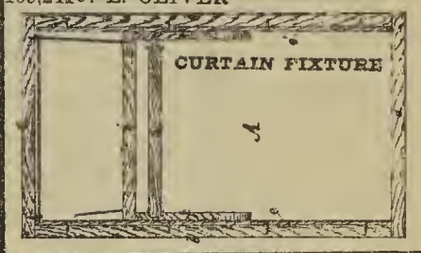


109,239. E. D. MURFEY MATERIAL FOR BEARINGS AND JOURNALS.

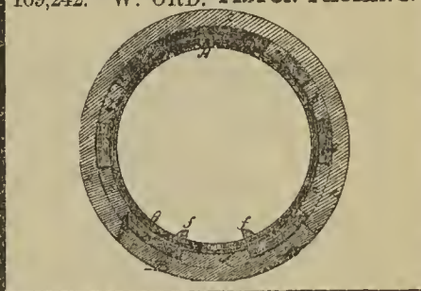
109,240. J. W. NORTON. CLOTHES POUNDER.



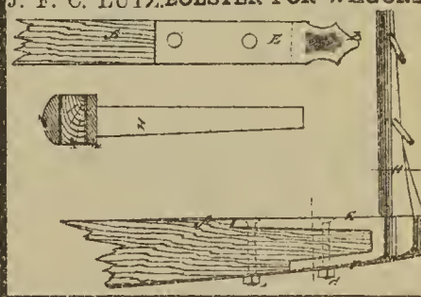
109,241 J. L. OLIVER CURTAIN FIXTURE



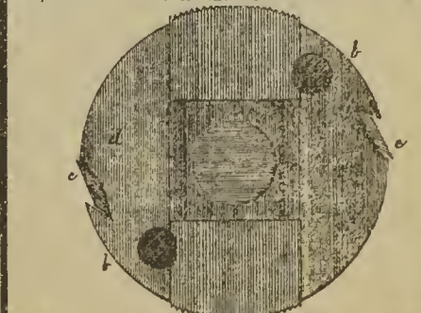
109,242. W. ORD. PISTON PACKING.



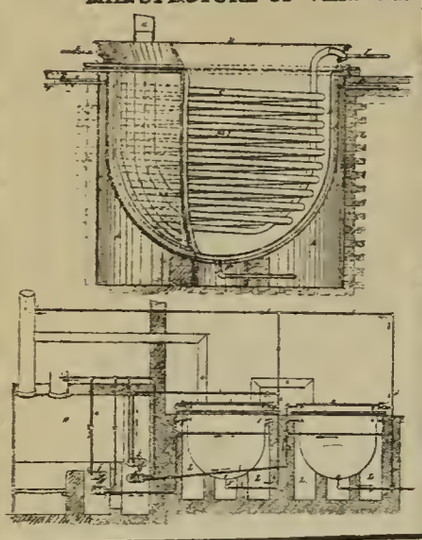
109,243. J. W. PEARMAN AND J. F. C. LUTZ. BOLSTER FOR WAGONS.



109,244. D. W. PERRY CUTTER HEAD.

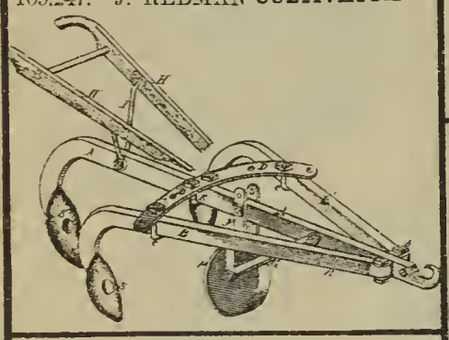


109,245. J. B. POLLOCK. MANUFACTURE OF VARNISH

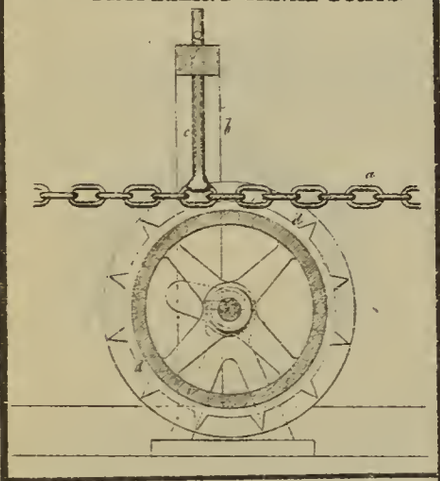


109,246 O. PORTER. ROOFING CEMENT.

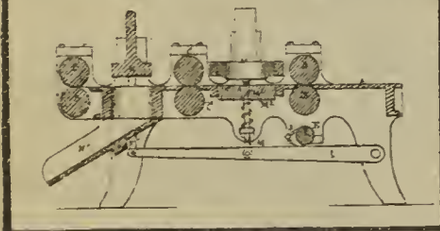
109,247. J. REBMAN CULTIVATOR.



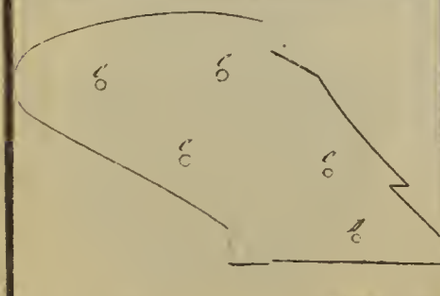
109,248. J. REID PROPELLING CANAL BOATS.



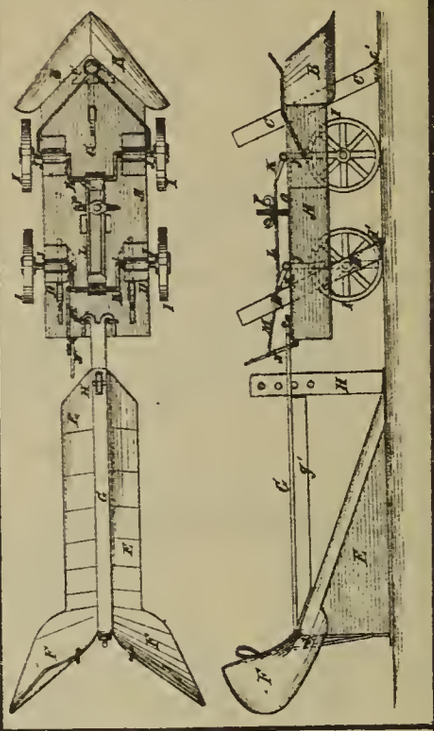
109,249. I. L. G. RICE PAPER CUTTING MACHINE.



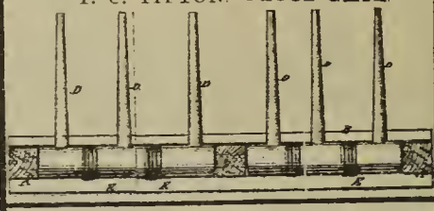
109,250. L. W. RICHARDSON. PLOW.



109,251. J. W. ROBERTS DITCHING MACHINE.



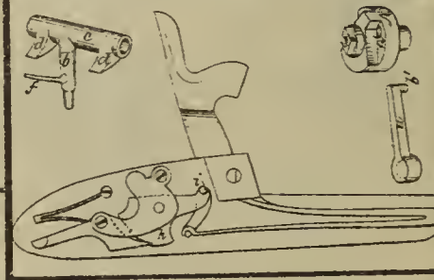
109,252. S. ROWLAND AND T. C. TIPTON. FLOOD GATE.



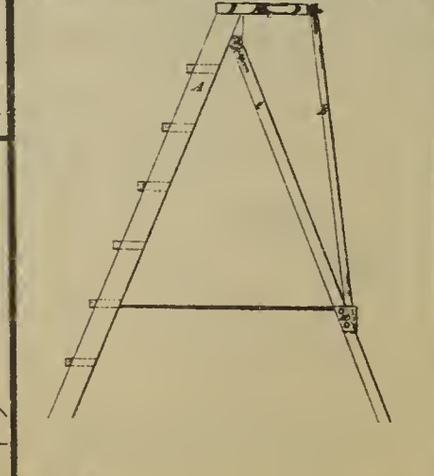
109,253. W. W. RUSSELL PAPER FILE.

109,254. A. RUTTKAY. ROOFING COMPOSITION.

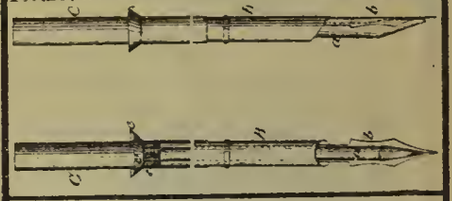
109,255. E. L. SARGENT BREECH LOADING FIRE ARM.



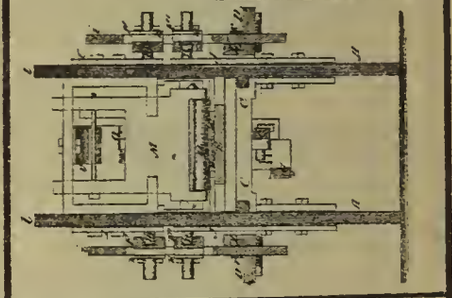
109,256. G. A. SCHACHTEL EXTENSION PLATFORM STEP LADDER



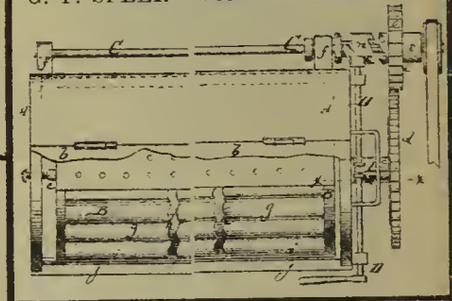
109,257 F. SCHIFFERLE. FOUNTAIN PEN.



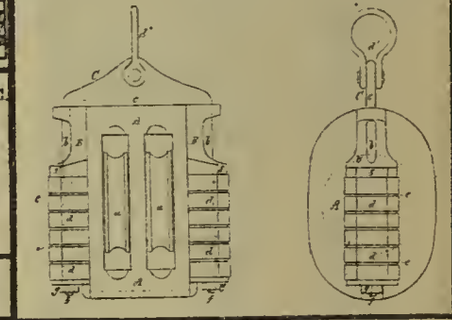
109,258. C. SHELMEDINE SHINGLE MACHINE.



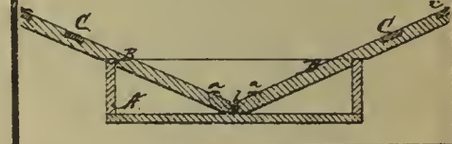
109,259. H. E. SMITH AND G. F. SPEER WASHING MACHINE.



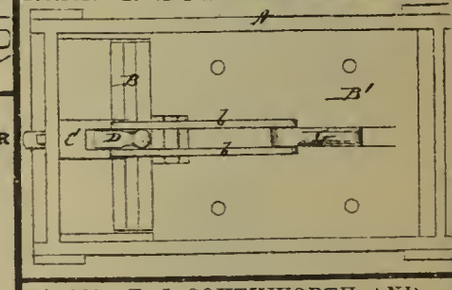
109,260. R. J. SMITH. TACKLE BLOCK.



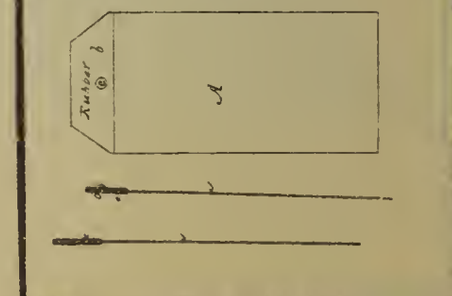
109,261. S. J. SMITH HAY RACK FOR WAGONS.



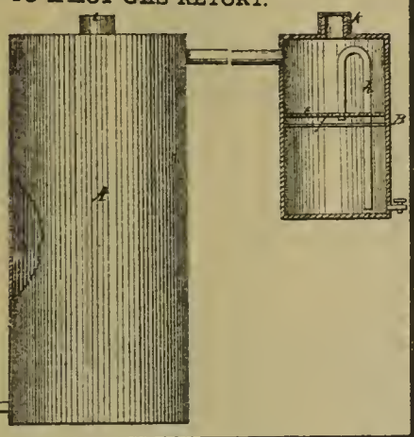
109,262. T. SNOW WASHING MACHINE.



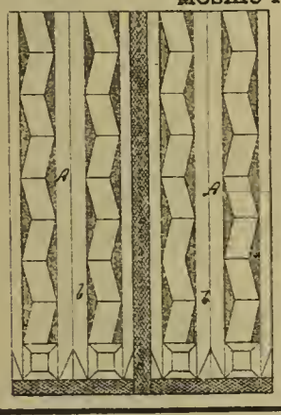
109,263. T. J. SOUTHWORTH AND W. H. LAWTON TAG.



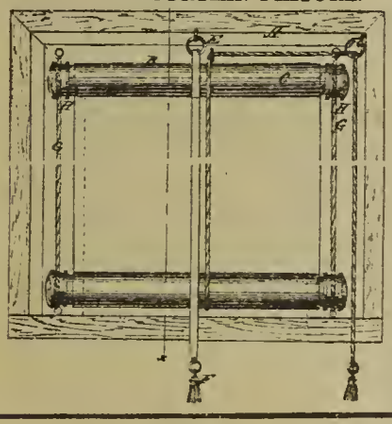
109,264. T. G. SPRINGER.
FEEDING HYDROCARBON LIQUIDS TO A HOT GAS RETORT.



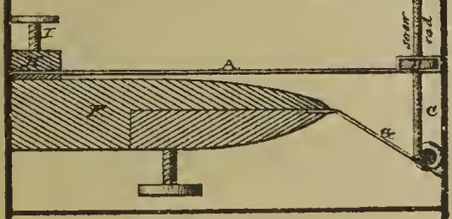
109,265. J. STEGMILLER.
MOSAIC FLOOR.



109,266. J. STEPHENS.
CURTAIN FIXTURE.

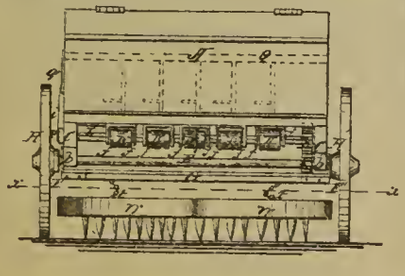


109,267. J. STEWART.
RULING MACHINE.

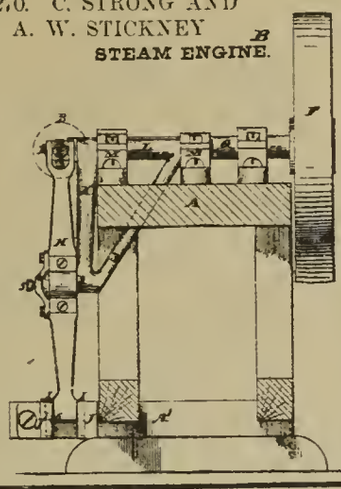


109,268. W. H. ST. JOHN AND P. CARTWRIGHT
PURIFYING ILLUMINATING GAS.

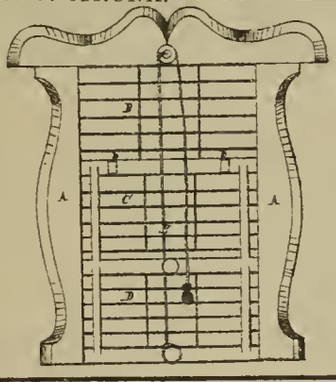
109,269. E. STONER.
COMBINED HARROW AND SEEDER.



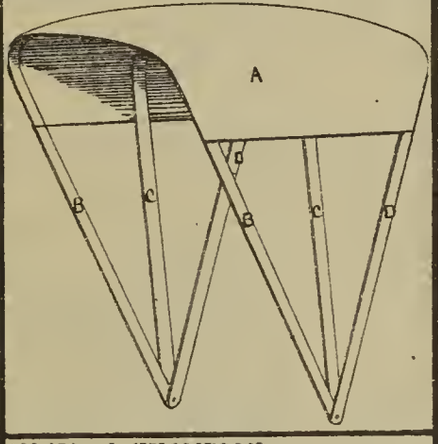
109,270. C. STRONG AND A. W. STICKNEY
STEAM ENGINE.



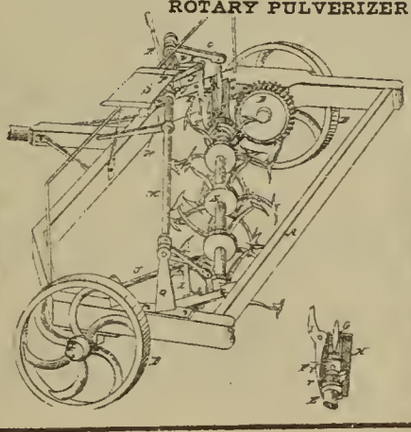
109,271 W. STRUNK. WINDOW SHADE.



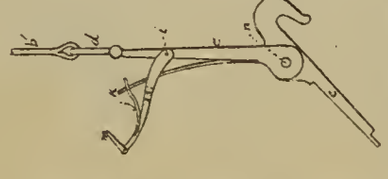
109,272. G. L. SWETT AND J. P. LOCKEY MOLDED CARRIAGE TOP



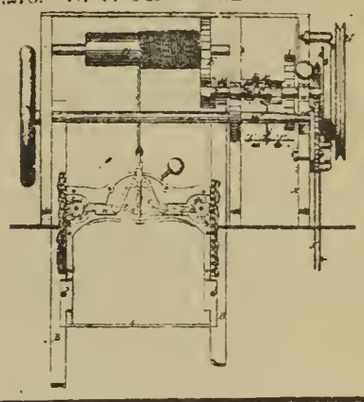
109,273. J. THOMPSON
ROTARY PULVERIZER



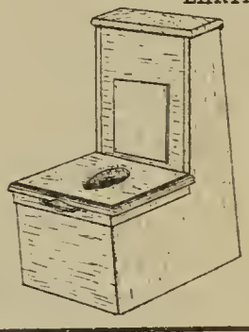
109,274. J. R THORNE
HOOK FOR DUMPING TUBS.



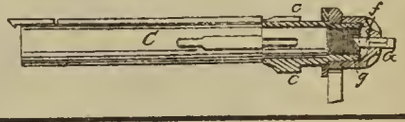
109,275. G. C. TIMPE ELEVATOR.



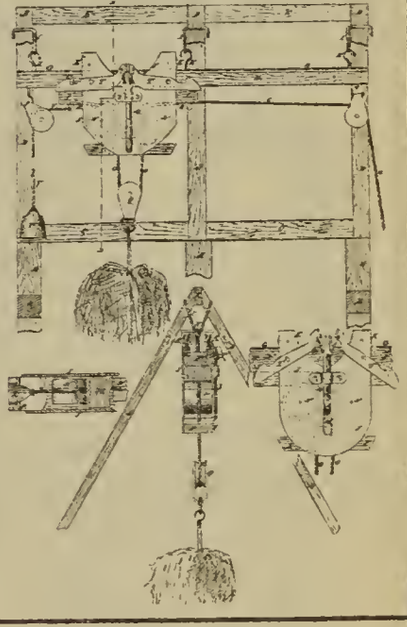
109,276. E. W. C. VANDERVEER
EARTH CLOSET.



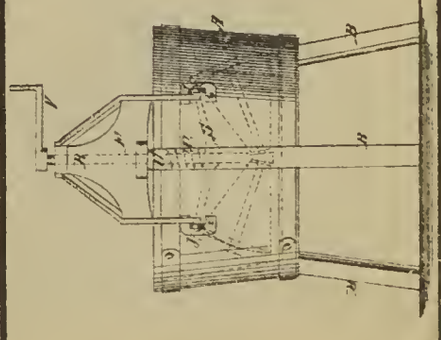
109,277. F. VETTERLIN.
BREECH LOADING FIRE ARM.



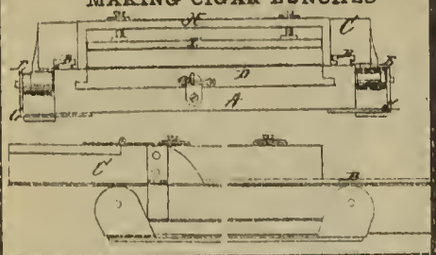
109,278. J. H. VIOLETT.
HOISTING APPARATUS.



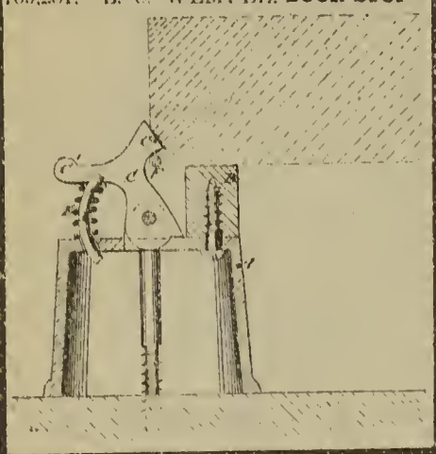
109,279. H. WARNER.
WASHING MACHINE



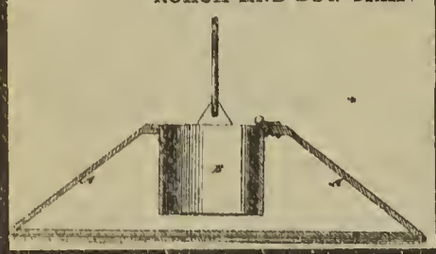
109,280. W. WEIS MACHINE FOR MAKING CIGAR BUNCHES



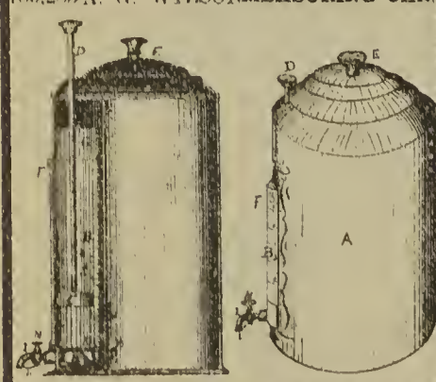
109,281. L. C. WEMPLE. DOOR STOP



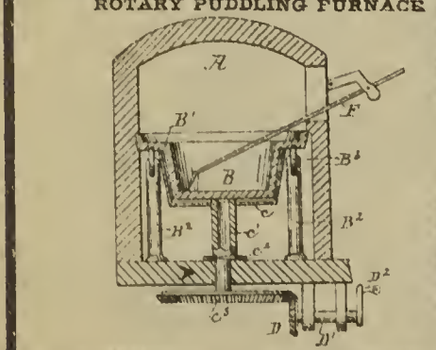
109,282. T. WILLIAMS. ROACH AND BUG TRAP.



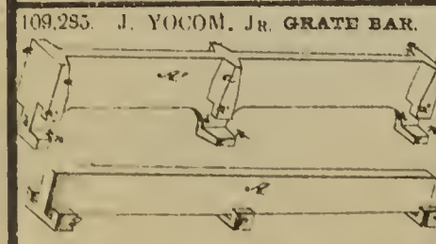
109,283. A. G. WILSON MEASURING CAN.



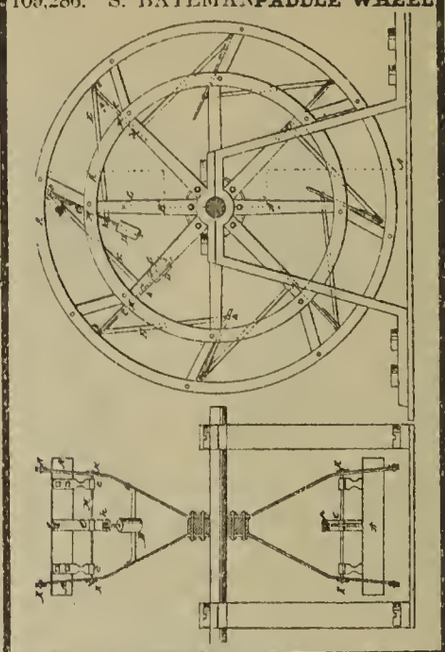
109,284. E. WOOD ROTARY PUDDLING FURNACE



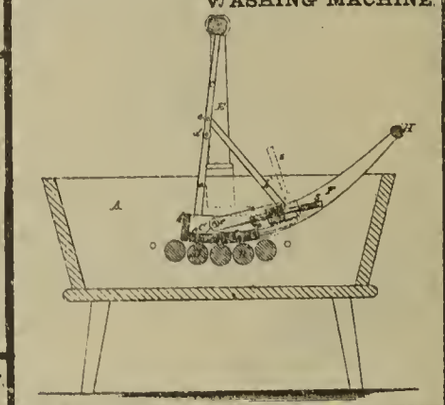
109,285. J. YOCOM, JR. GRATE BAR.



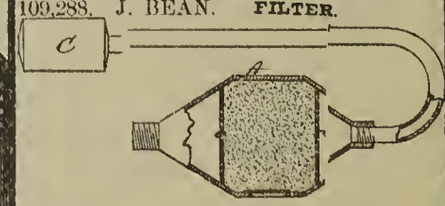
109,286. S. BATEMAN PADDLE WHEEL



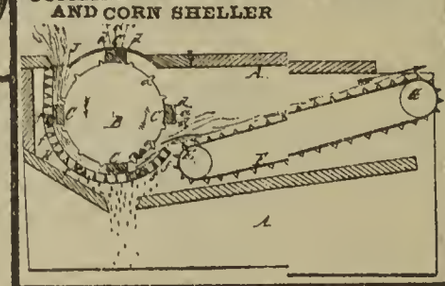
109,287. W. B. H. BEACH WASHING MACHINE.



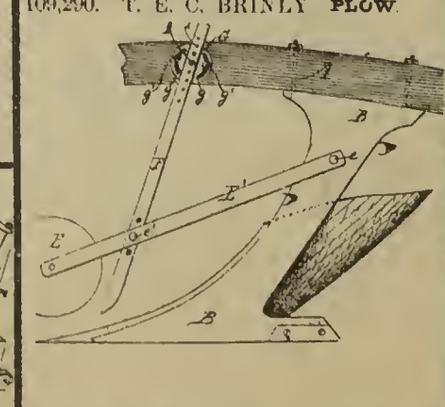
109,288. J. BEAN. FILTER.



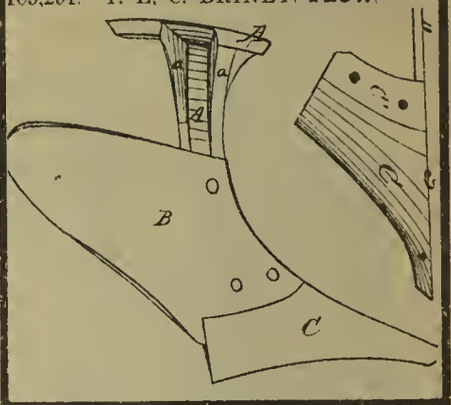
109,289. J. BOWMAN. COMBINED THRASHING MACHINE AND CORN SHELLER



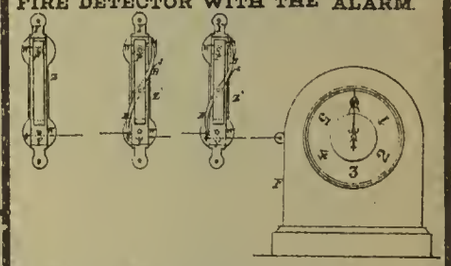
109,290. T. E. C. BRINLY PLOW.



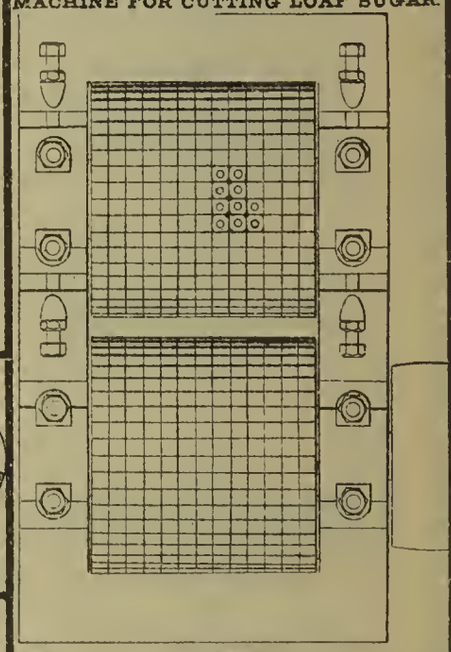
109,291. T. E. C. BRINLY. PLOW.



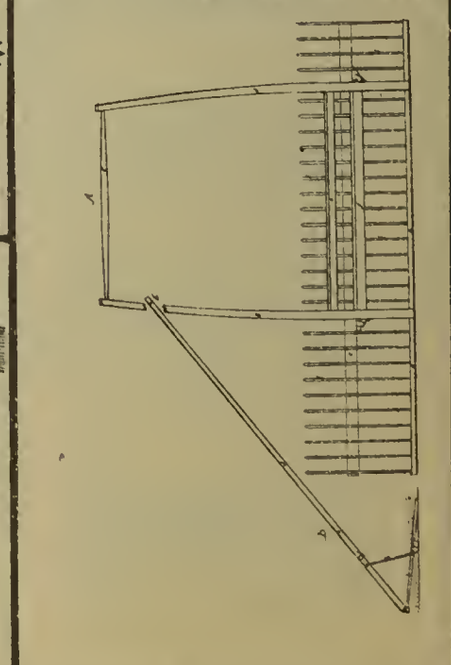
109,292. H. L. BROWER. CONNECTING FIRE DETECTOR WITH THE ALARM.



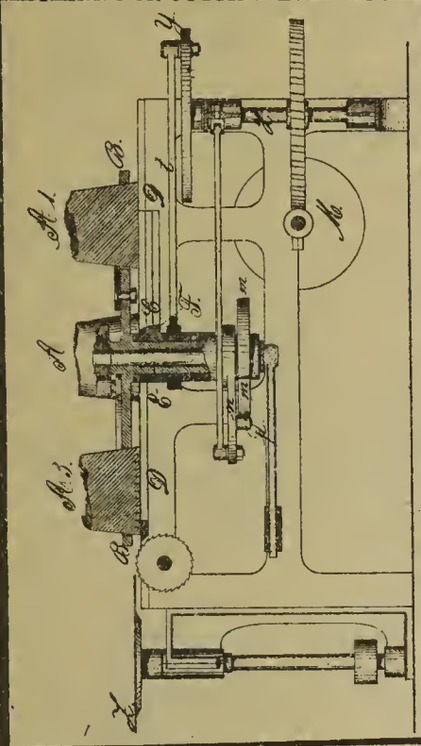
109,293. A. AND F. BROWN MACHINE FOR CUTTING LOAF SUGAR.



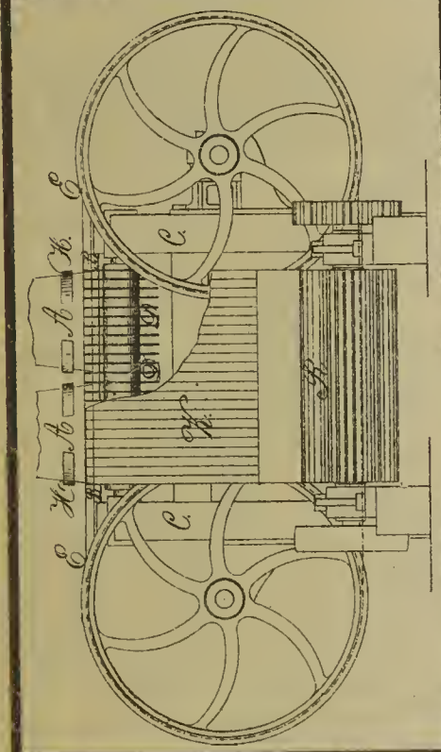
109,294. E. BROWN HAND DRAG RAKE.



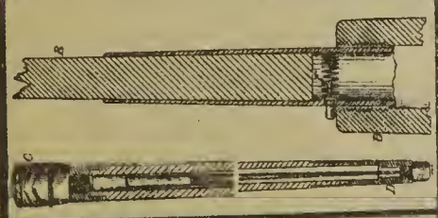
109,295. F. BROWN
MACHINE FOR CUTTING LOAF SUGAR.



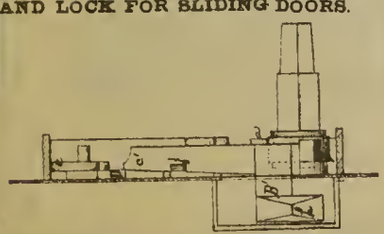
109,296. F. BROWN
MACHINE FOR CUTTING LOAF SUGAR.



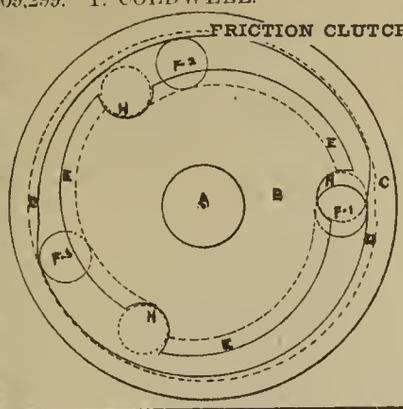
109,297. C. L. BUSHNELL.
COMBINED CANE AND WHIP



109,298. J. CAPRON COMBINED LATCH AND LOCK FOR SLIDING DOORS.

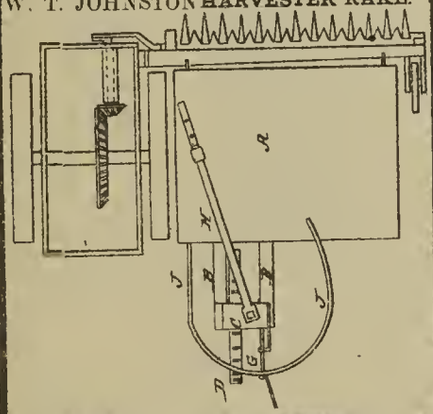


109,299. T. COLDWELL.
FRICTION CLUTCH.

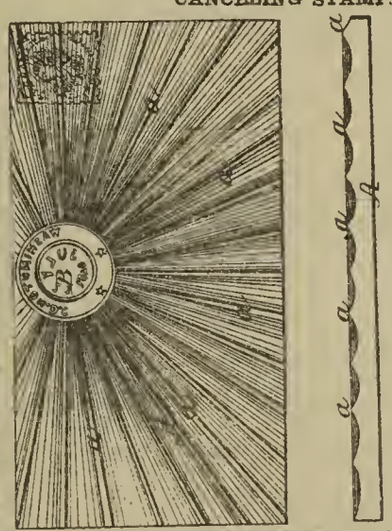


109,300. L. COTE APPARATUS FOR TRIMMING HEELS OF BOOTS AND SHOES.

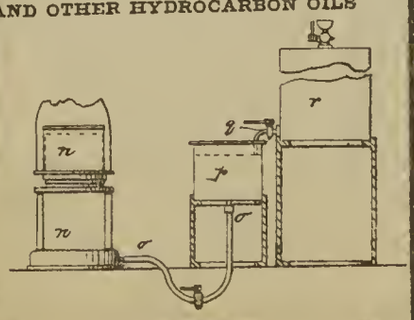
109,301. A. G. CRANE AND W. T. JOHNSTON HARVESTER RAKE.



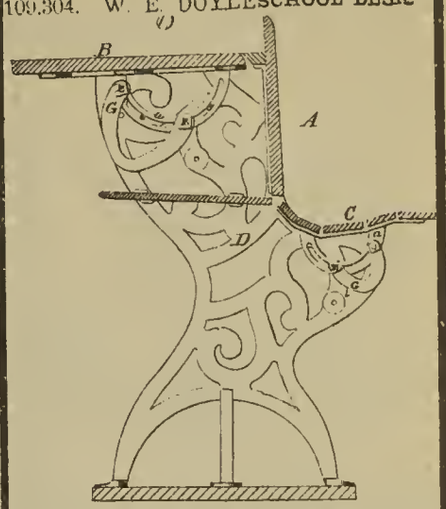
109,302. C. E. DONNELLAN
CANCELING STAMP.



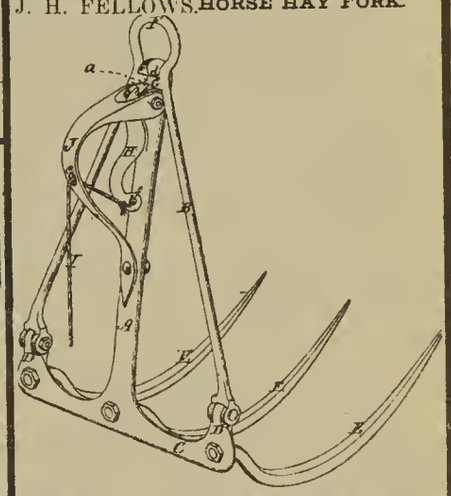
109,303. H. H. DOTY APPARATUS FOR BURNING PARAFFINE AND OTHER HYDROCARBON OILS



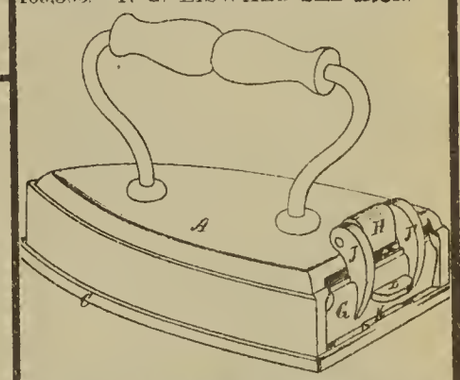
109,304. W. E. DOYLE SCHOOL DESK.



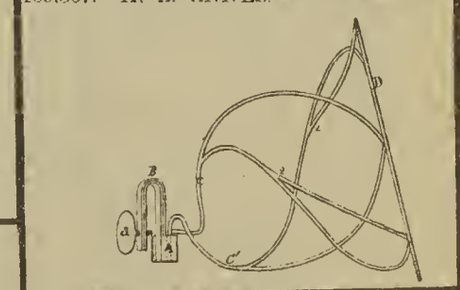
109,305. A. T. DUNBAR AND J. H. FELLOWS. HORSE HAY FORK.



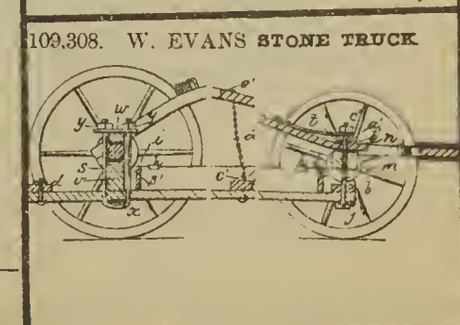
109,306. T. G. EISWALD SAD IRON.



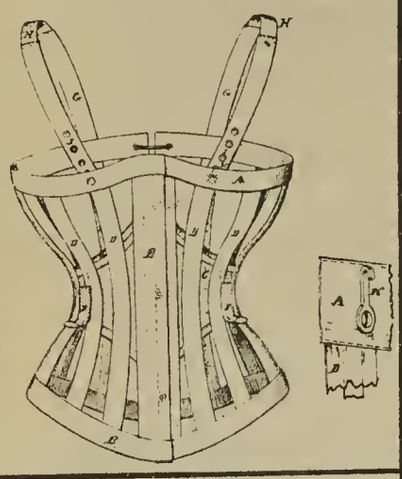
109,307. H. L. ENNES. MOP WRINGER.



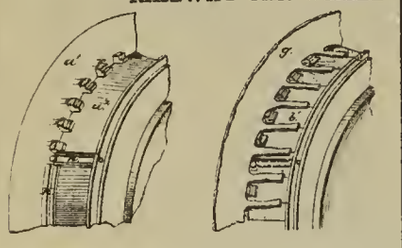
109,308. W. EVANS STONE TRUCK.



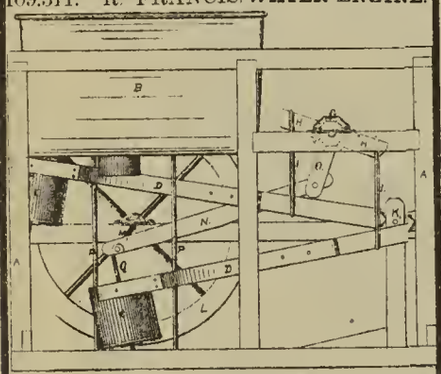
109,309. D. H. FANNING. SKIRT SUPPORTING HOOK FOR CORSETS.



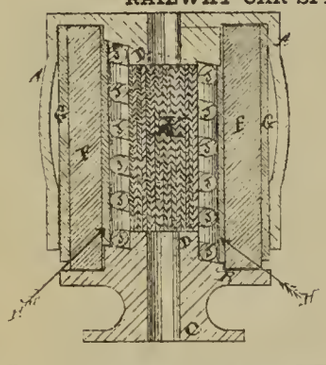
109,310. J. N. FARRAR RAILWAY CAR WHEEL



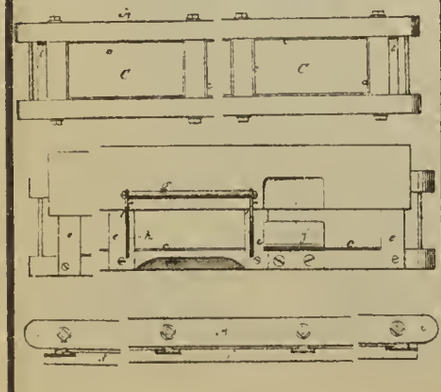
109,311. R. FRANCIS. WATER ENGINE.



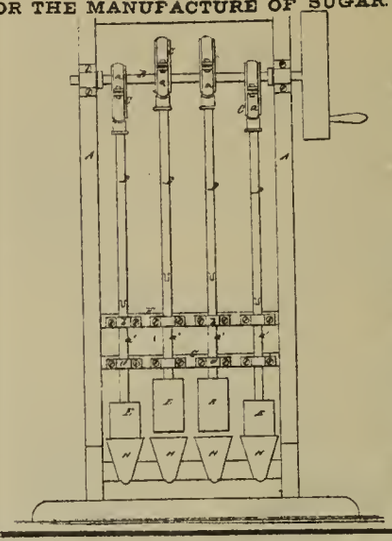
109,312. H. GARDINER RAILWAY CAR SPRING



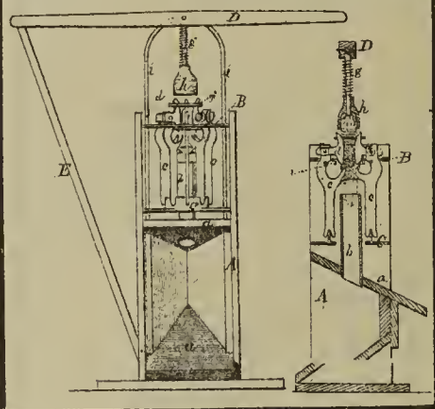
109,313. G. GRAESSLE. BRICK MOLD.



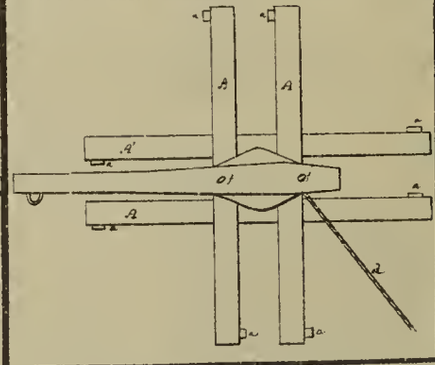
109,314. J. W. HAHN. APPARATUS FOR THE MANUFACTURE OF SUGAR.



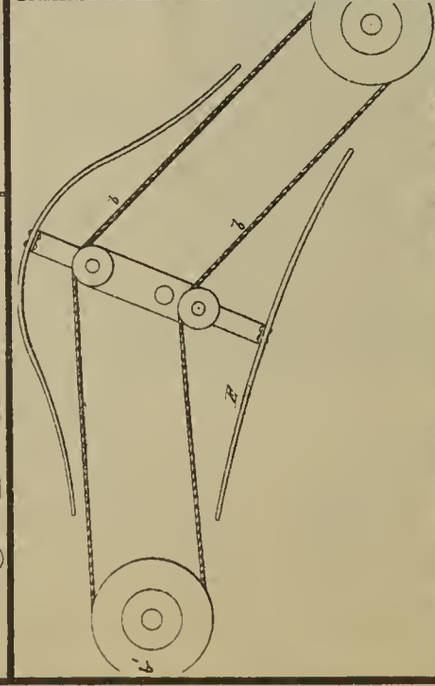
109,315 J. R. HAMILTON CORN SHELLER



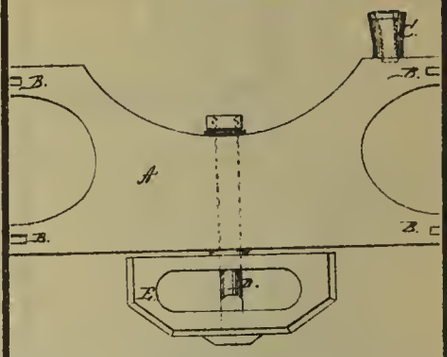
109,316 S. HARMAN STUMP EXTRACTOR



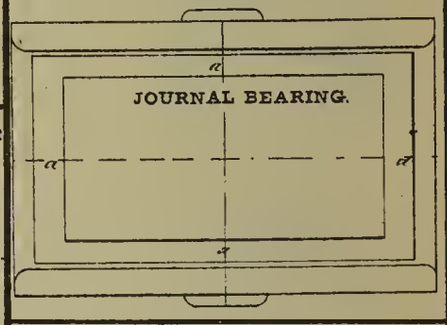
109,317. C. HODGSON APPARATUS FOR TRANSPORTING LOADS ON WIRE ROPE



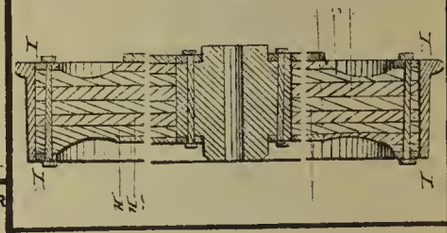
109,318. G. HOLMAN CLOTHES LINE REEL.



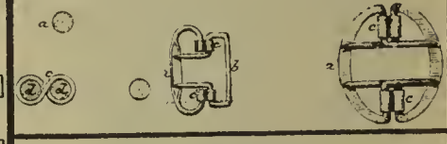
109,319. D. A. HOPKINS JOURNAL BEARING.



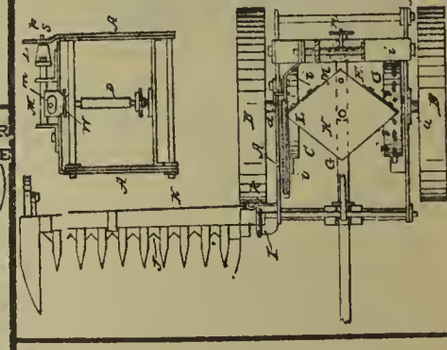
109,320. L. B. HUNT RAILWAY CAR WHEEL.



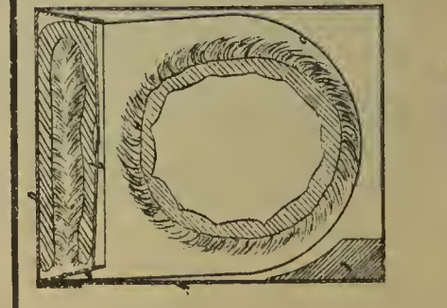
109,321. J. C. HYDE. BUCKLE.



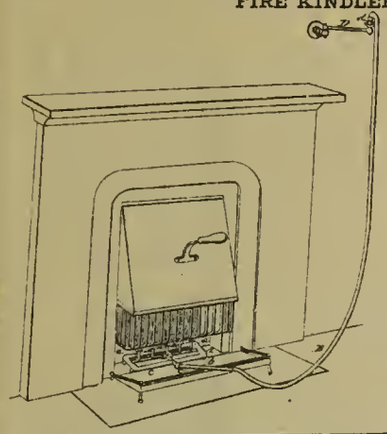
109,322. B. ILLINGWORTH MOWING MACHINE.



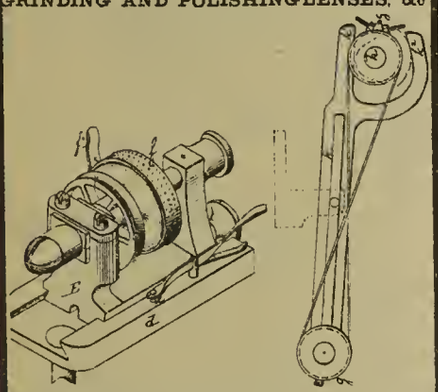
109,323. G. L. JAEGER MUFF AND COLLAR BOX



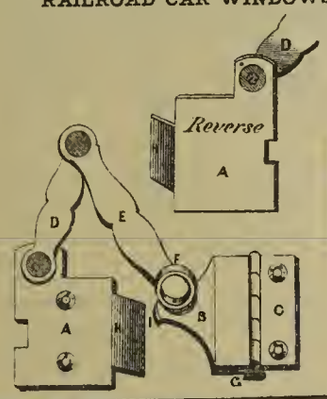
109,324. J. KENNEY, Sr.
FIRE KINDLER.



109,325. H. D. KNIGHT MACHINE FOR GRINDING AND POLISHING LENSES, &c

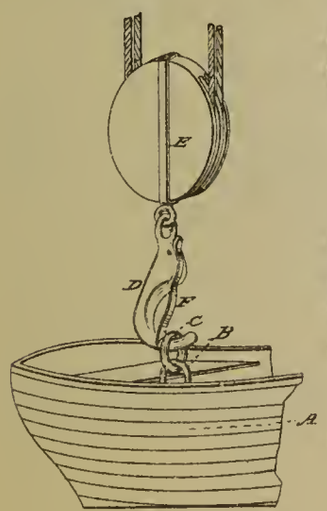


109,326. J. F. LASH
OPENING AND SHUTTING DEVICE FOR RAILROAD CAR WINDOWS.

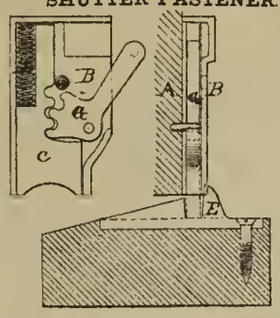


109,327. R. G. LOFTUS.
INK FOR WRITING

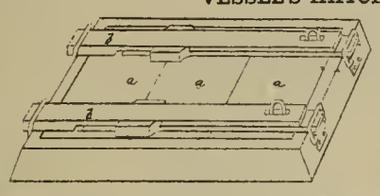
109,328. J. A. LORD, Jr.
DETACHING HOOK



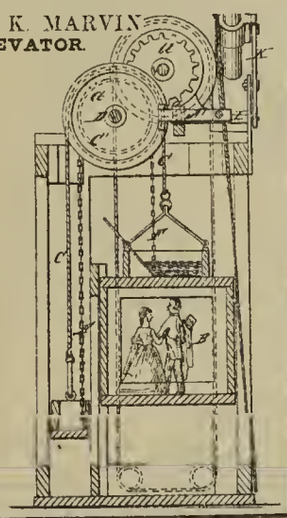
109,329. I. O. LUEY
SHUTTER FASTENER.



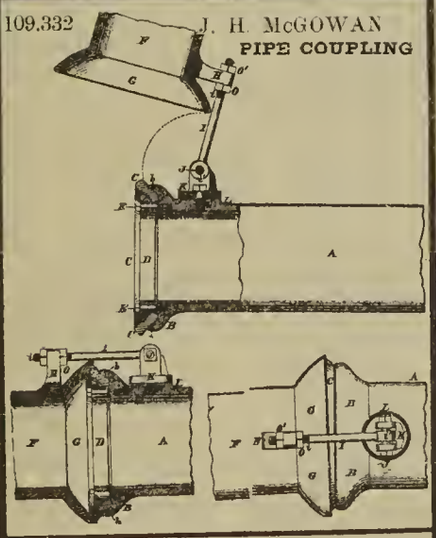
109,330. J. P. MADDOX
VESSEL'S HATCH.



109,331. W. K. MARVIN
ELEVATOR.

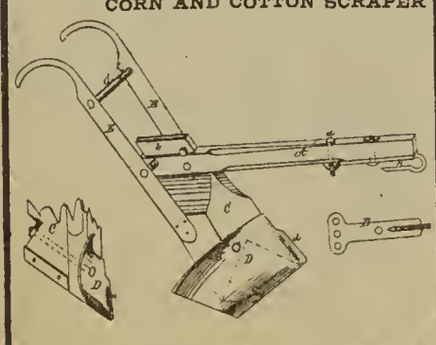


109,332 J. H. McGOWAN
PIPE COUPLING

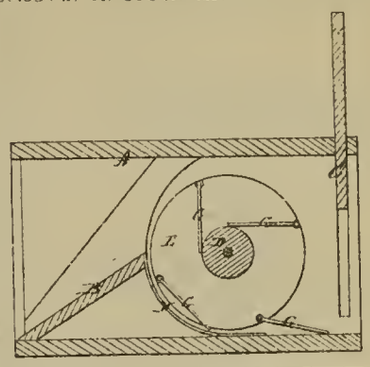


109,333. A. B. McKEON
CONCRETE PAVEMENT

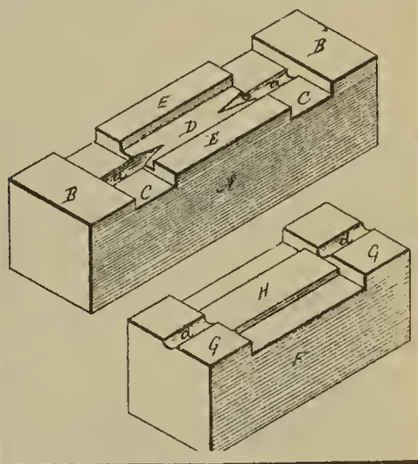
109,334. G. MILLIORN
CORN AND COTTON SCRAPER



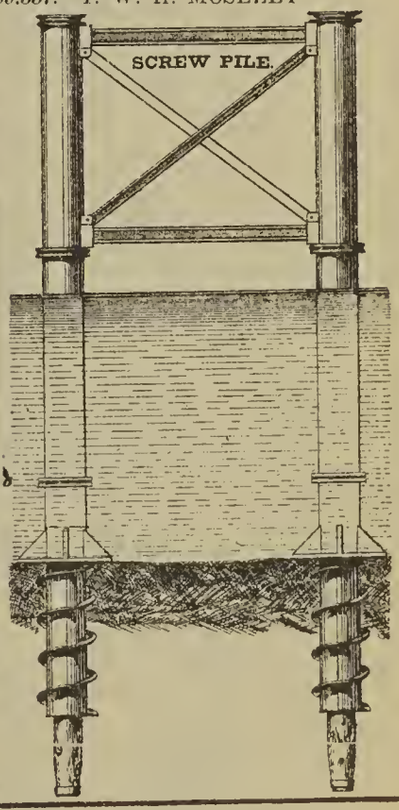
109,335 J. A. MORGAN WATER WHEEL.



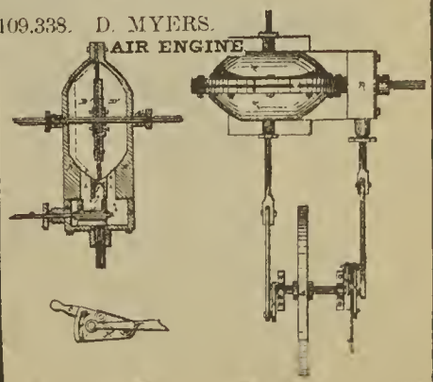
109,336. F. B. MORSE.
DIE FOR FORGING CARRIAGE CLIPS.



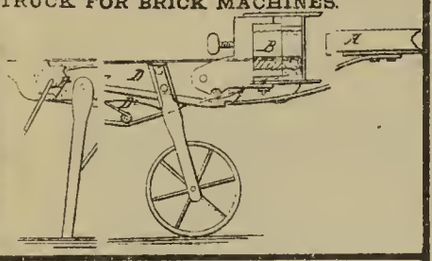
109,337. T. W. H. MOSELEY
SCREW PILE.



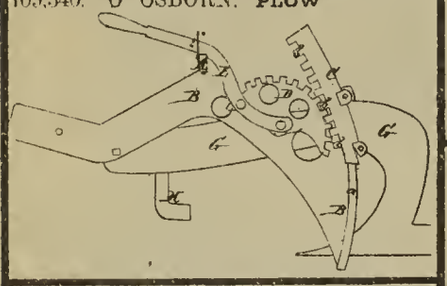
109,338. D. MYERS.
AIR ENGINE.



109,339. W. OLDS. OFF BEARING TRUCK FOR BRICK MACHINES.

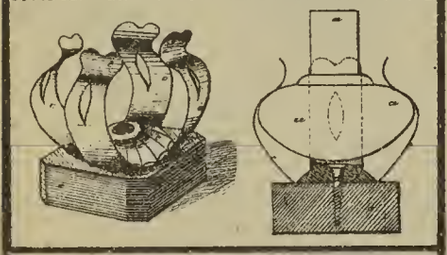


109,340. O OSBORN. PLOW

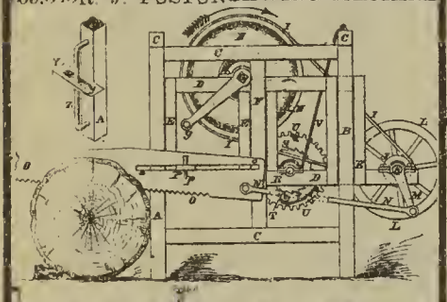


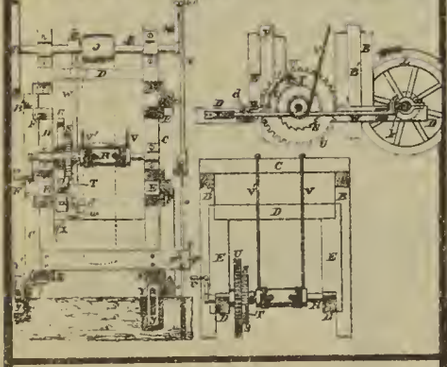
109,341. A. PARAF MANUFACTURE AND APPLICATION OF COLORS FOR PRINTING AND DYEING.

109,342. R. V. PHILLIPS. DOOR CATCH.

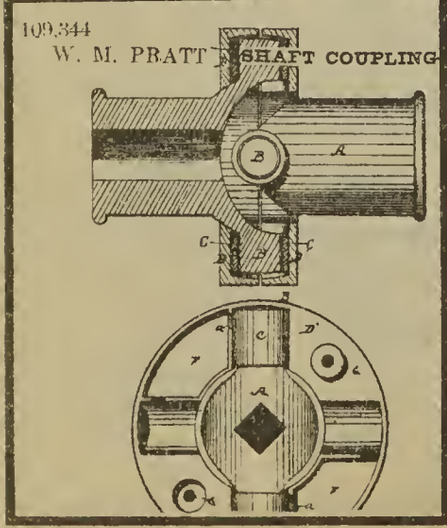


109,343. R. J. POSTON. SAWING MACHINE.

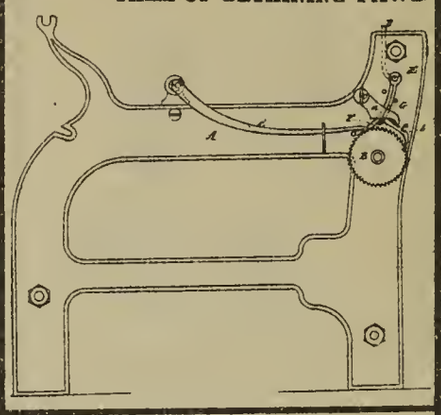




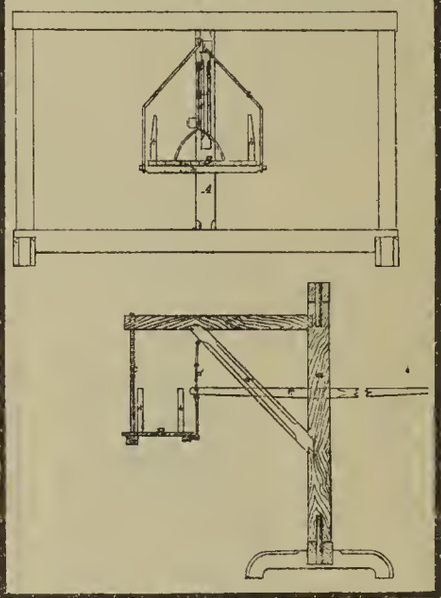
109,344. W. M. PRATT. SHAFT COUPLING.



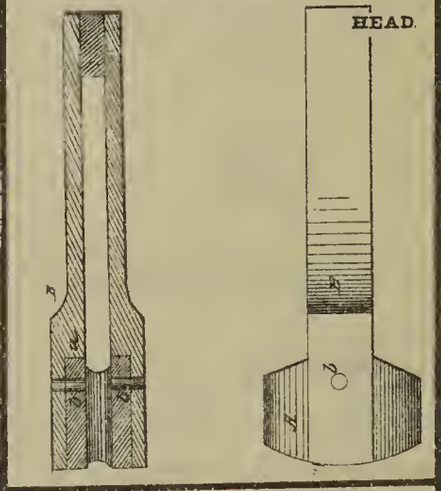
109,345. G. RICHARDSON. TAKE-UP DETAINING PAWL.



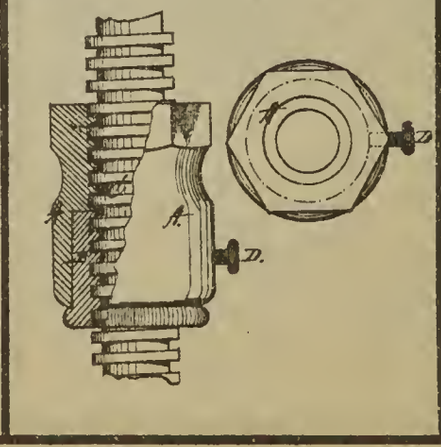
109,346. R. B. ROBBINS. WOOD AND COAL DUMPER FOR RAILWAYS.



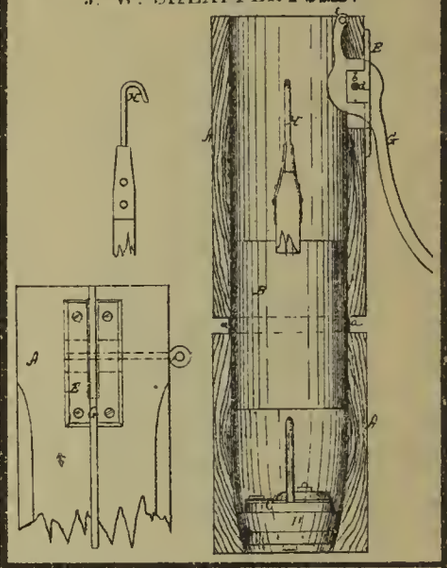
109,347. A. ROSS AND J. ARTHUR. RAILWAY CAR BUMPER AND DRAW HEAD.



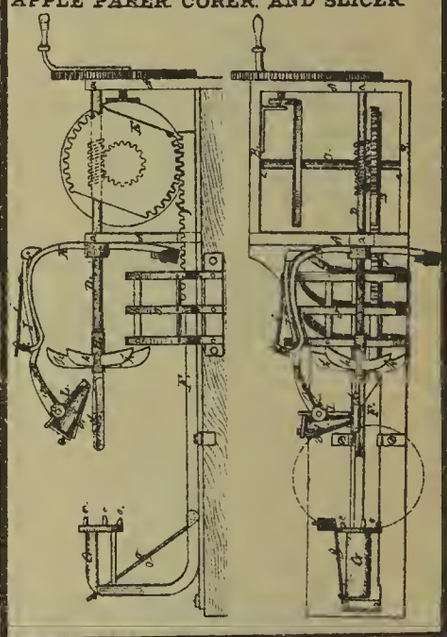
109,348. T. ROSS AND W. W. GRAHAM. TAKE-UP NUT.



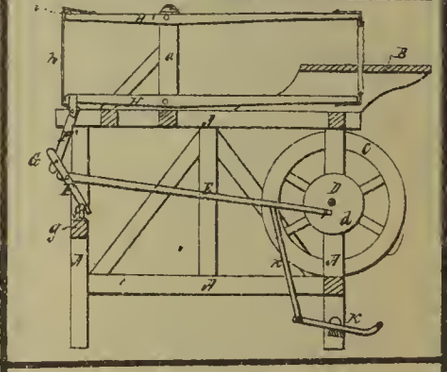
109,349. A. SHERMAN AND J. W. SHEAFFER. PUMP.



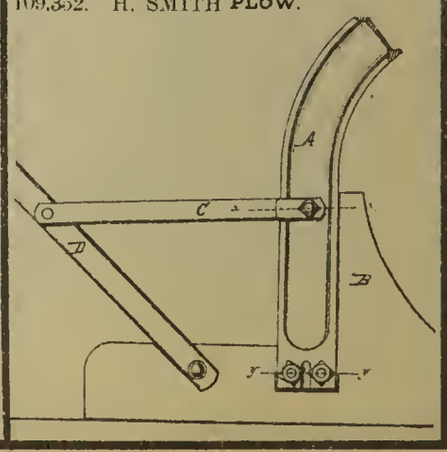
109,350. J. SHOBE. APPLE PARER, CORER, AND SLICER.



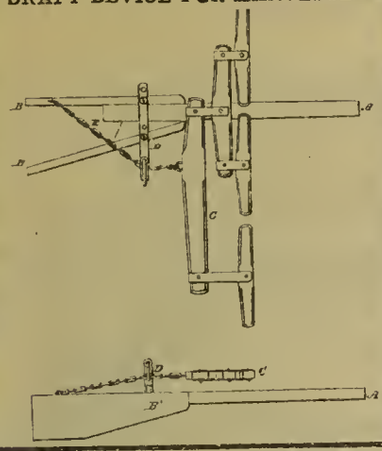
109,351. F. D. SMITH. SAWING MACHINE.



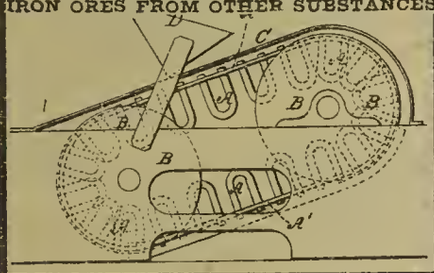
109,352. H. SMITH. PLOW.



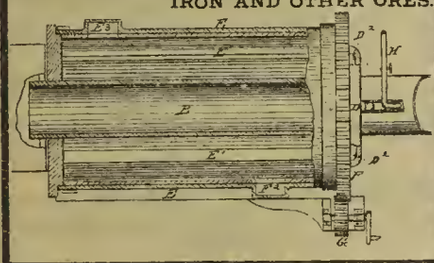
109,353. J. M. SMITH
DRAFT DEVICE FOR HARVESTERS



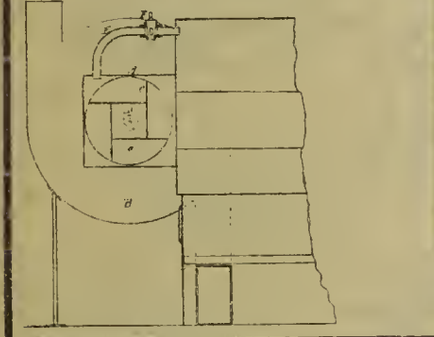
109,354. J. Y. SMITH MACHINE FOR SEPARATING MAGNETIC IRON ORES FROM OTHER SUBSTANCES



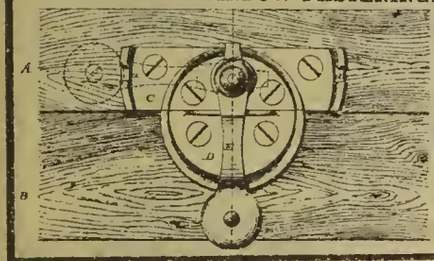
109,355. J. Y. SMITH. FURNACE AND PROCESS FOR TREATING IRON AND OTHER ORES.



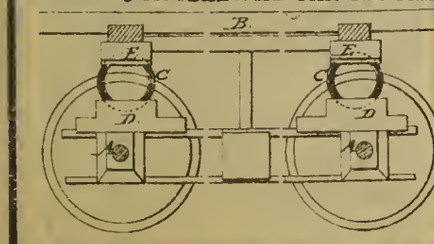
109,356. R. A. SMITH
BLAST APPARATUS FOR FURNACES.



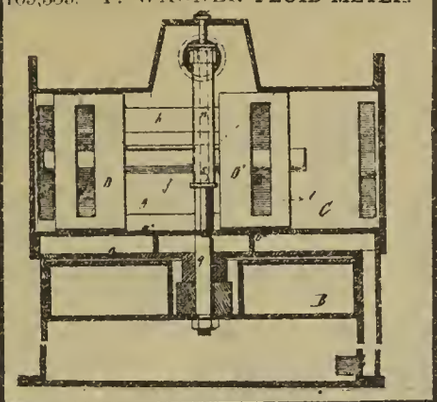
109,357. H. ST. JOHN
WINDOW FASTENING.



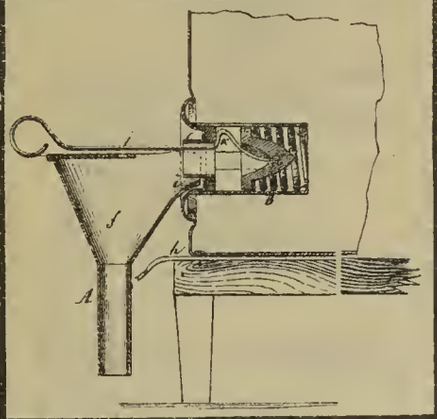
109,358. W. M. TAYLOR.
SPRING FOR RAILWAY CAR TRUCKS



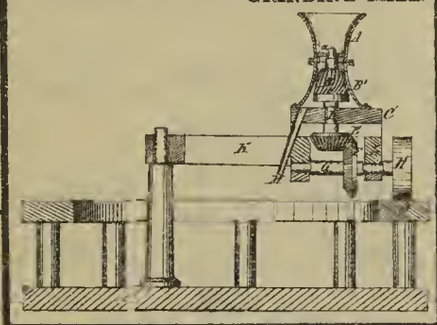
109,359. F. WAGNER FLUID METER.



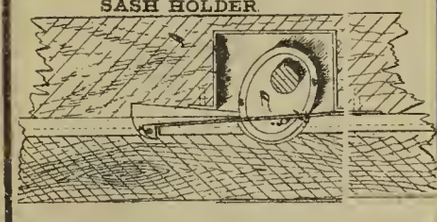
109,360. A. WARTH FUNNEL.



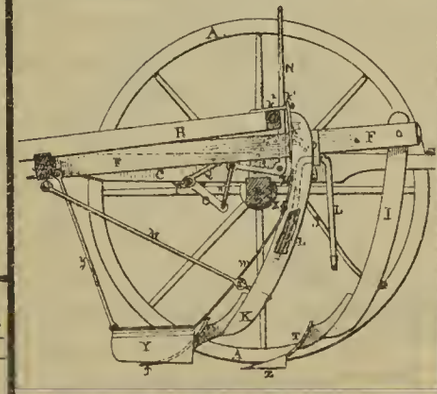
109,361. J. M. WESTMORELAND
GRINDING MILL.



109,362. E. H. WHEELER
SASH HOLDER.

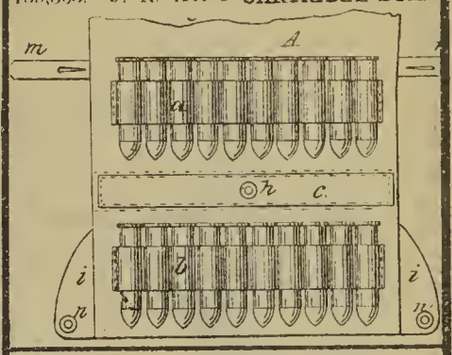


109,363 B. F. YOUNG CULTIVATOR

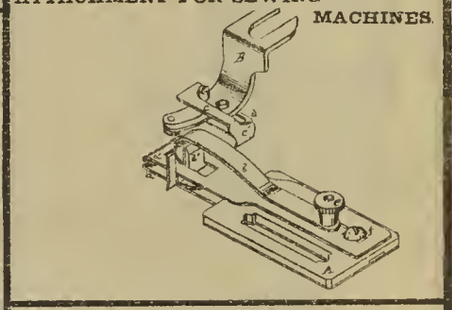


109,364
W. ZEIGLER AND J. H. SEAL
FLAVORING COMPOUND

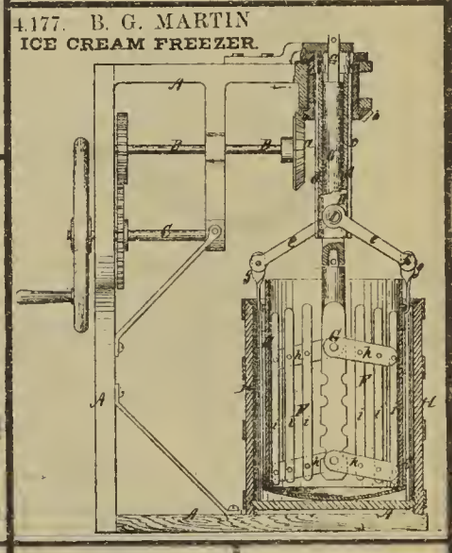
109,365. J. R. KING. CARTRIDGE BOX.



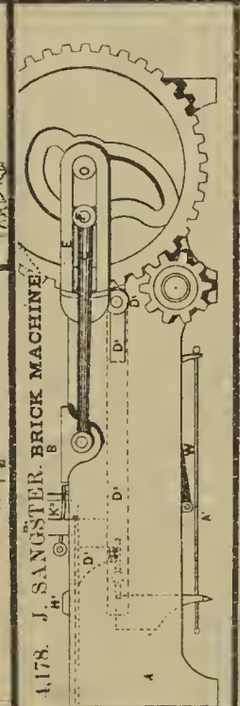
109,366. W. N. MARTIN BINDING ATTACHMENT FOR SEWING MACHINES.



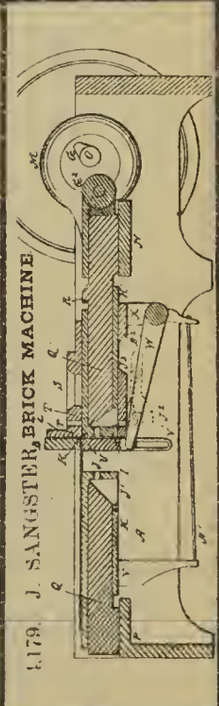
4,177. B. G. MARTIN
ICE CREAM FREEZER.



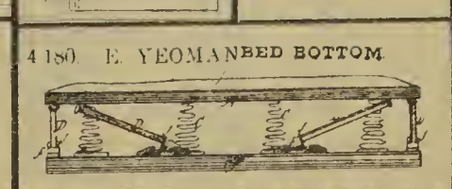
4,178. J. SANGSTER. BRICK MACHINE.



4,179. J. SANGSTER, BRICK MACHINE



4,180. E. YEOMANBED BOTTOM



ILLUSTRATIONS OF PATENTS

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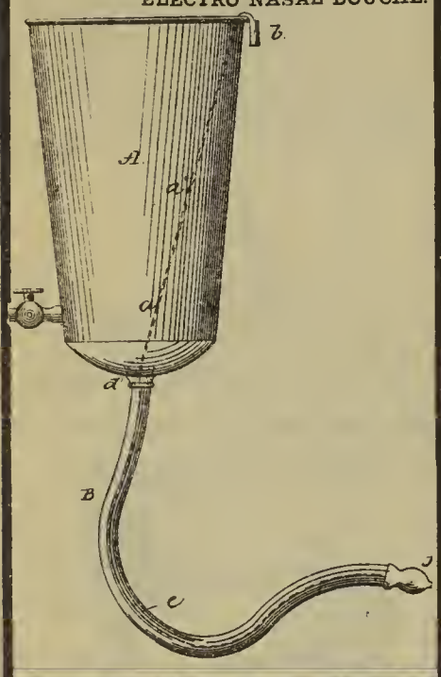
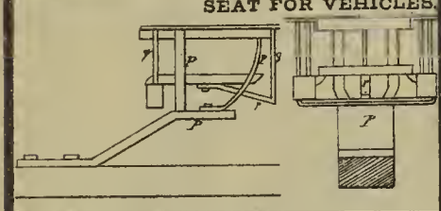
NOVEMBER 22, 1870.

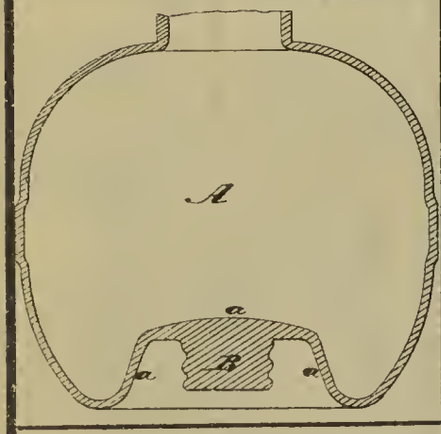
109,367. S. E. ADAMS
ELECTRO NASAL DOUCHE.



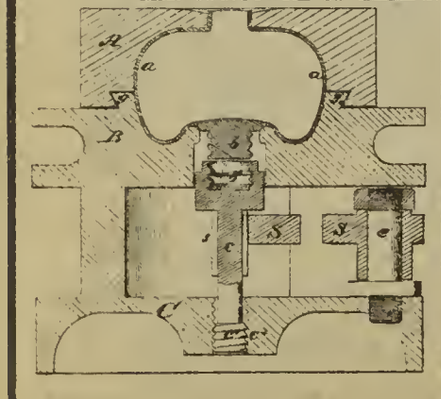
109,368. D. R. ALLEN
SEAT FOR VEHICLES.



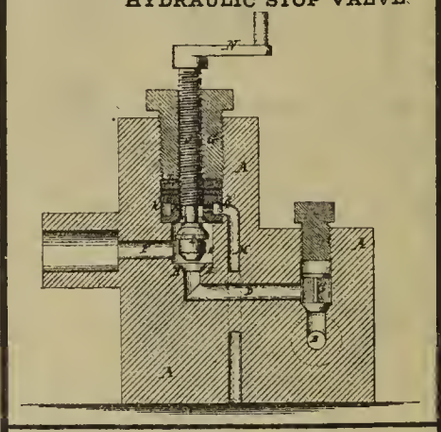
109,369. J. S. AND T. B. ATTERBURY
GLASS LAMP.



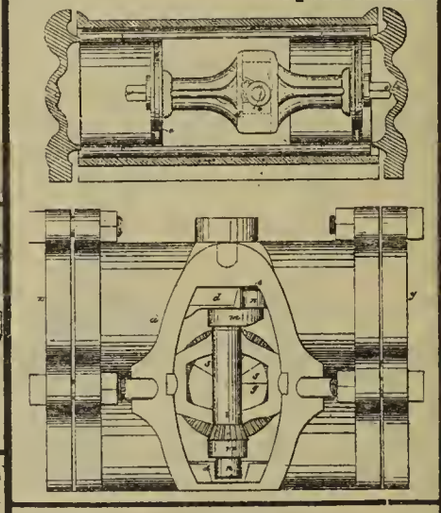
109,370. J. S. AND T. B. ATTERBURY
MANUFACTURE OF LAMPS.



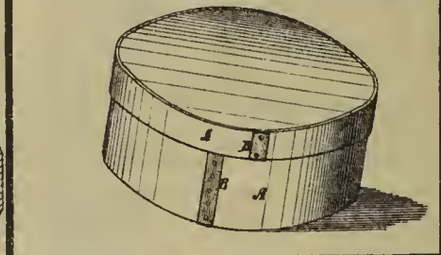
109,371. C. S. BAILEY.
HYDRAULIC STOP VALVE.



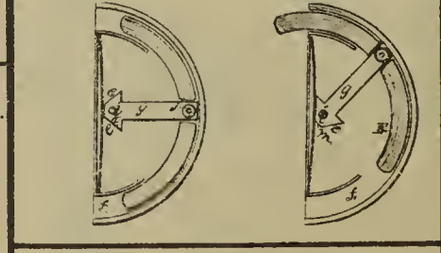
109,372. P. BALL AND B. FITTS.
LIQUID METER.



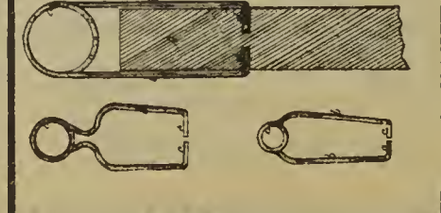
109,373. S. S. BARRIE.
WOODEN HOOP BOX.



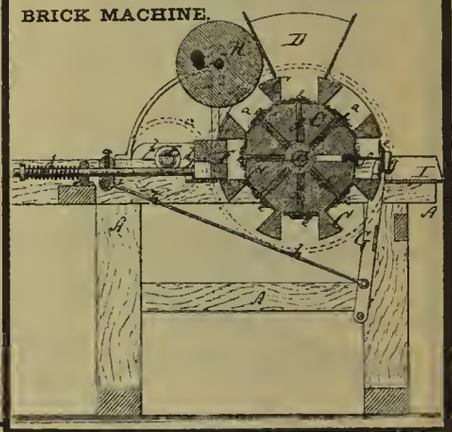
109,374. G. F. BEARDSLEY
SASH HOLDER.



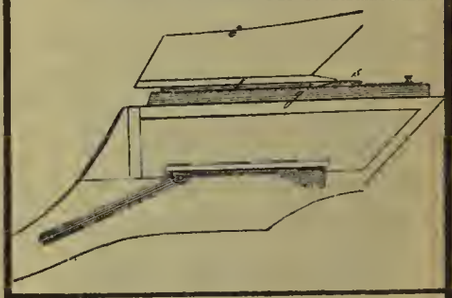
109,375. W. H. BIXLER.
BROOM HOLDER.



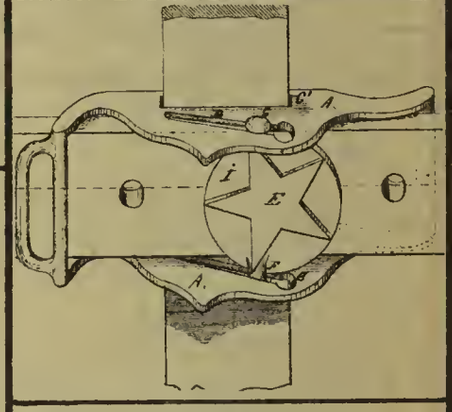
109,376. T. E. BONNER, dec'd.
J. R. ARMSTRONG, administrator
BRICK MACHINE.



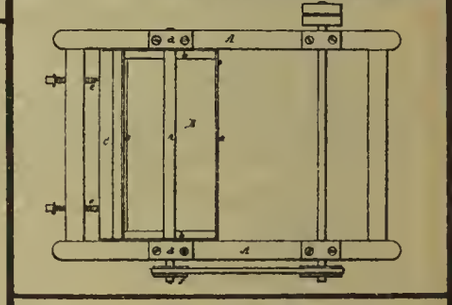
109,377. R. F. BRIGGS.
SLIDING SEAT FOR CARRIAGES.



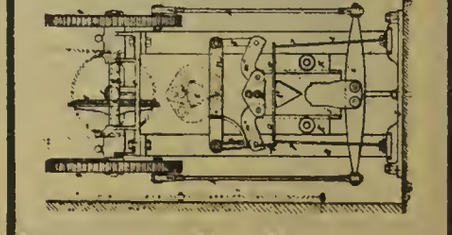
109,378. L. BROOKS. **TRACE BUCKLE.**



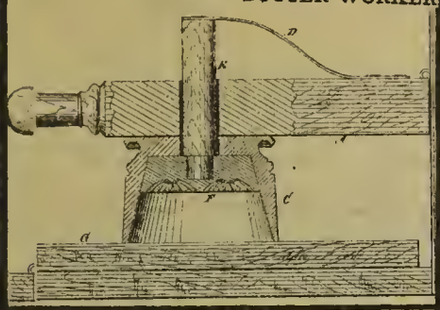
109,379. J. M. BROWN
SOFTENING SHEEP AND OTHER SKINS.



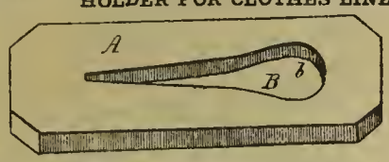
109,380. B. BRUNON. **MANUFACTURE OF WROUGHT METAL WHEELS.**



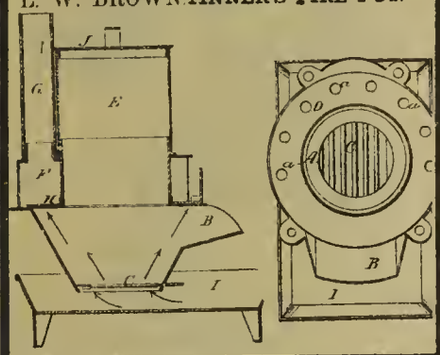
109,381. J. N. BRUSH
BUTTER WORKER



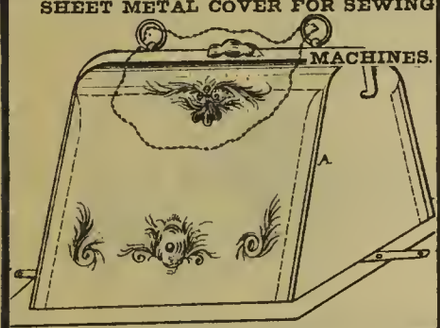
109,382. M. V. BULLA. CLOTHES HOLDER FOR CLOTHES LINES.



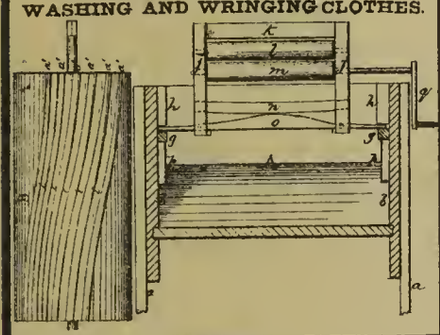
109,383. F. M. CAMPBELL AND L. W. BROWN TINNER'S FIRE POT.



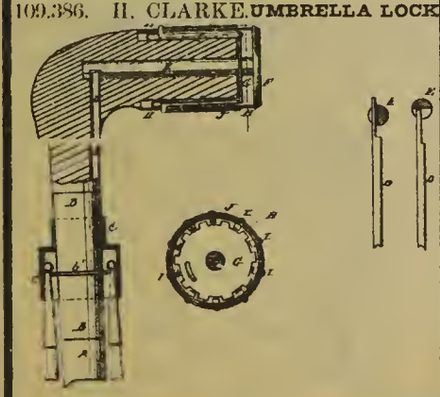
109,384R. H. CHINN AND J. F. REIGART
SHEET METAL COVER FOR SEWING MACHINES.



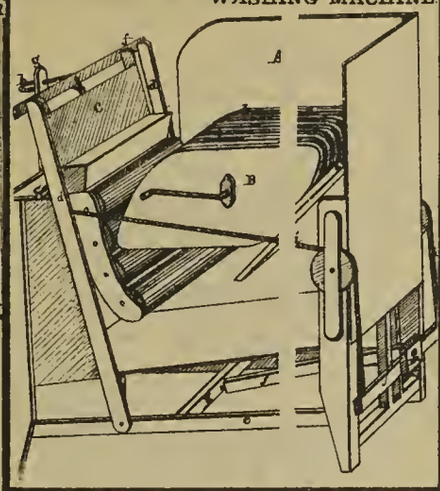
109,385. A. CLARK MACHINE FOR WASHING AND WRINGING CLOTHES.



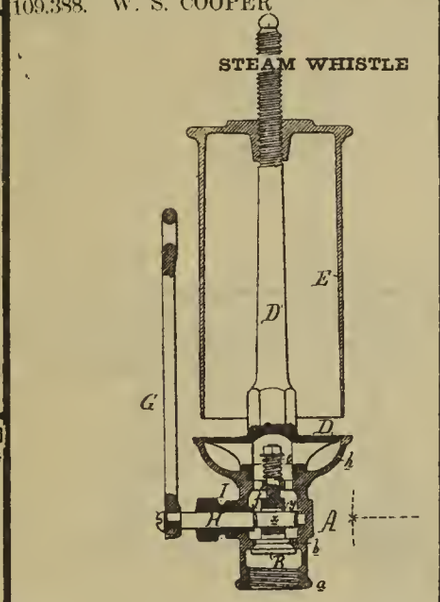
109,386. H. CLARKE. UMBRELLA LOCK



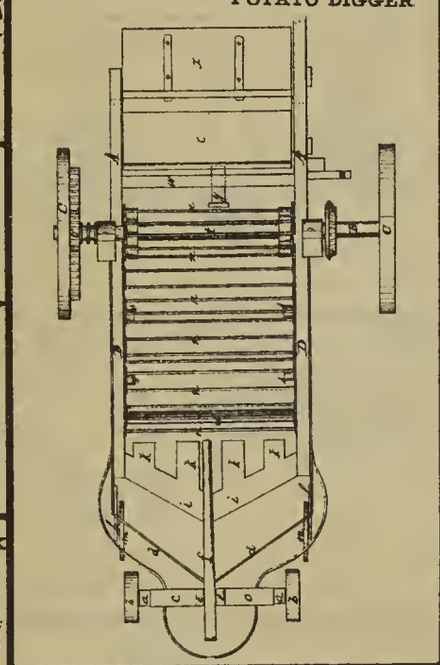
109,387. DE WITT C. COOLEY
WASHING MACHINE.



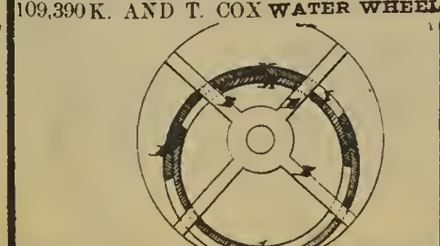
109,388. W. S. COOPER
STEAM WHISTLE



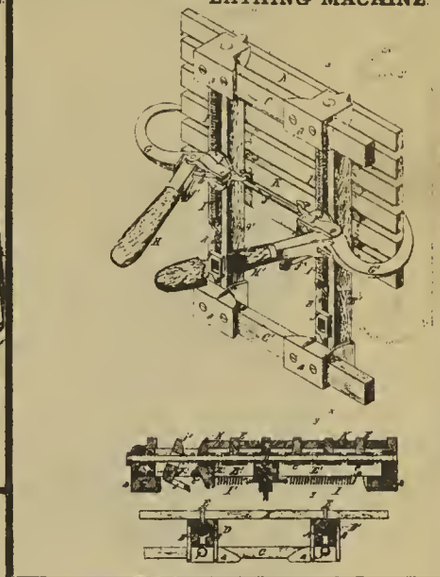
109,389. J. W. CORWIN
POTATO DIGGER



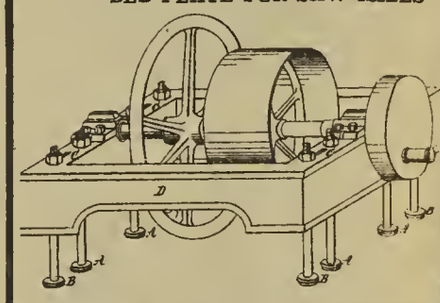
109,390 K. AND T. COX WATER WHEEL



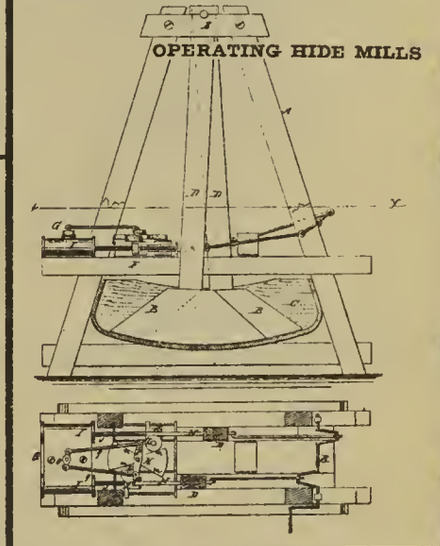
109,391. G. N. CREAMER
LATHING MACHINE.



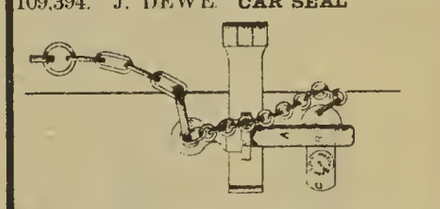
109,392. A. J. CROFT
BED PLATE FOR SAW MILLS



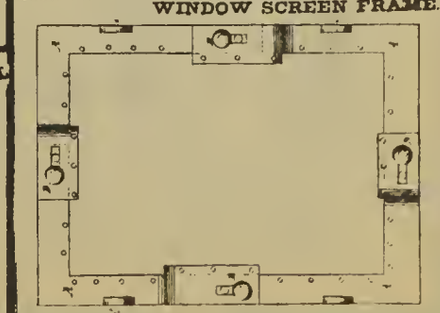
109,393. J. G. CURTIS
OPERATING HIDE MILLS



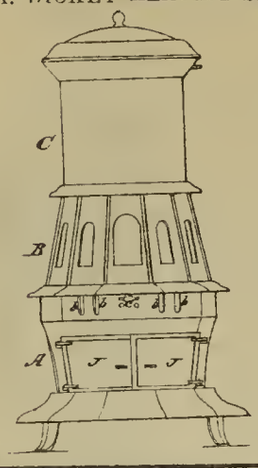
109,394. J. DEWE. CAR SEAL



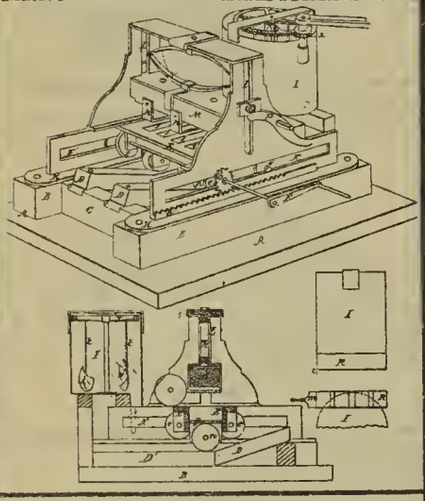
109,395. H. R. DEXTER
WINDOW SCREEN FRAME.



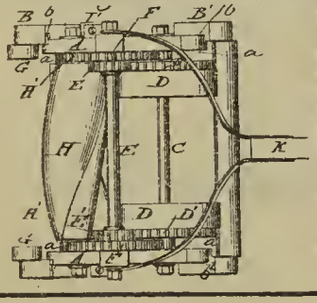
109,396. A. DICKEY **HEATING STOVE.**



109,397. L. DODGE **PRESS FOR THE MANUFACTURE OF ARTIFICIAL STONE.**

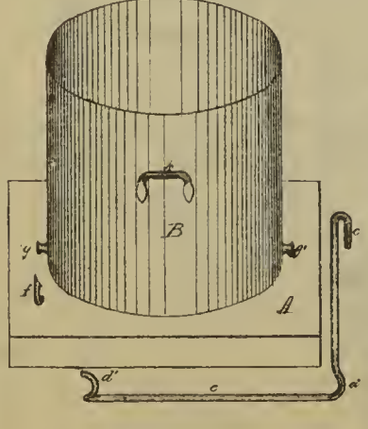


109,398. W. H. DRAKE **LAWN MOWER.**

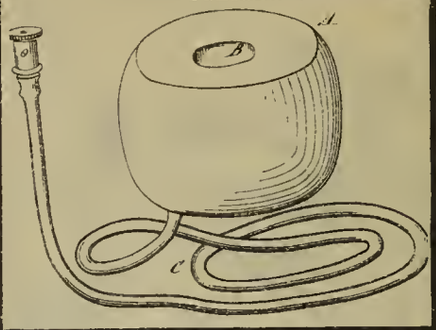


109,399. C. S. DUNBRACK **LAST.**

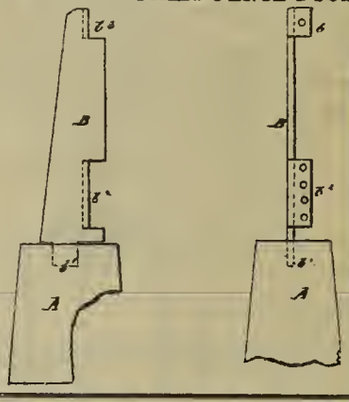
109,400. D. D. EDGERTON **MILK CAN FASTENER.**



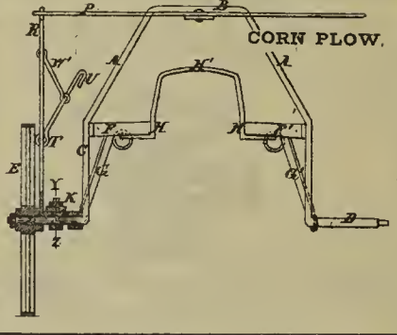
109,401. R. FAULKNER **UTERINE SUPPORTER.**



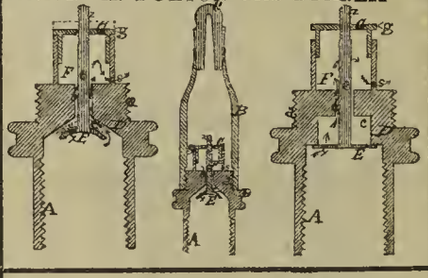
109,402. A. M. FREEMAN, C. P. IDELL AND B. VANDERHOVEN **PICKET FENCE POST.**



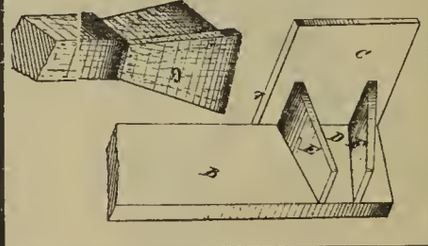
109,403. W. AND J. C. FRENCH **CORN PLOW.**



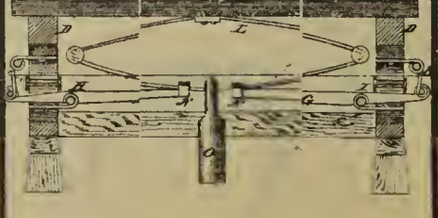
109,404. A. FULTON **GAS BURNER.**



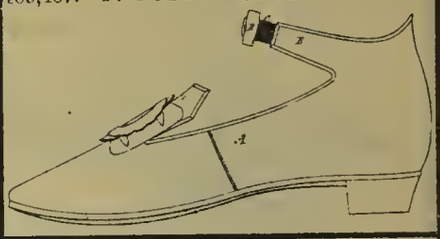
109,405. W. W. GOODRICH **ANCHOR BEAM SUPPORT FOR BRICK WALLS.**



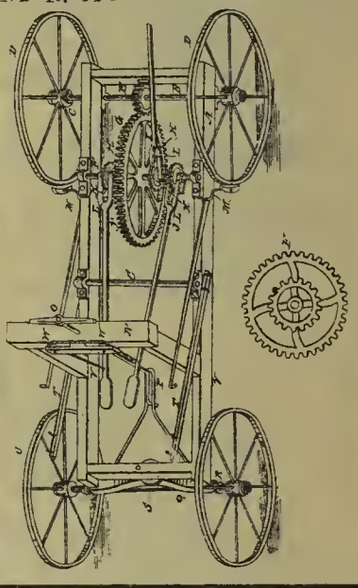
109,406. J. H. GOULD **VEHICLE SPRING.**



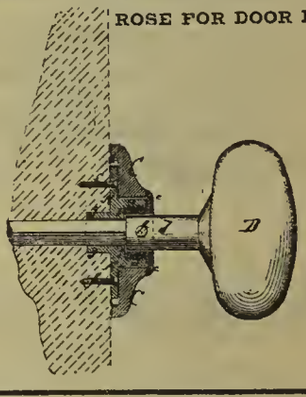
109,407. F. GURNEY **SHOE.**



109,408. D. HANCHETT, J. C. DANEY AND R. STUART **VELOCIPEDE.**

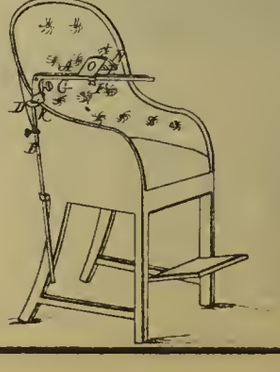


109,409. J. J. HENDERSON **ROSE FOR DOOR KNOBS.**

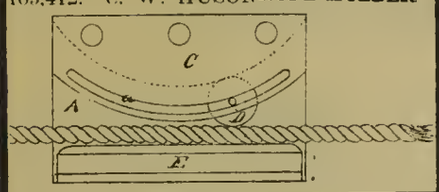


109,410. A. M. HUGHES **DIAPER.**

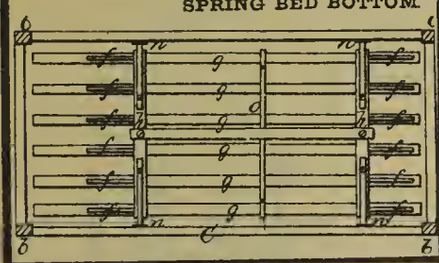
109,411. R. F. HUNT **DENTIST'S REST.**



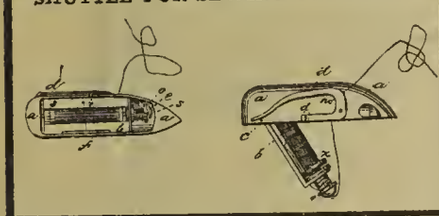
109,412. C. W. HUSON ROPE HOLDER



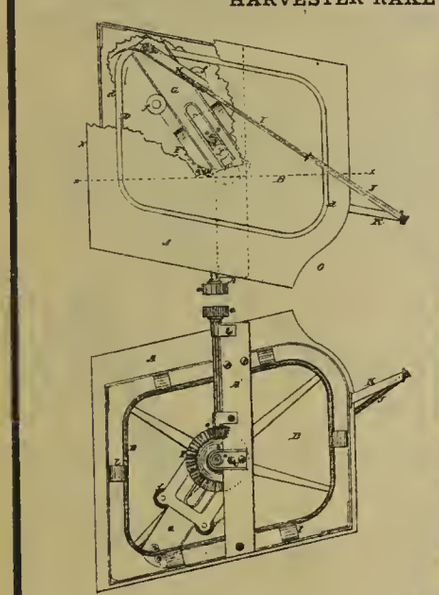
109,413. H. INGRAHAM SPRING BED BOTTOM



109,414. A. W. JOHNSON SHUTTLE FOR SEWING MACHINES

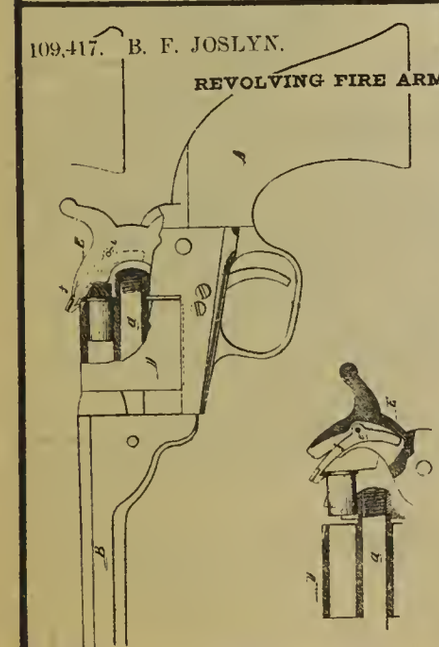


109,415. I. A. JOHNSON HARVESTER RAKE

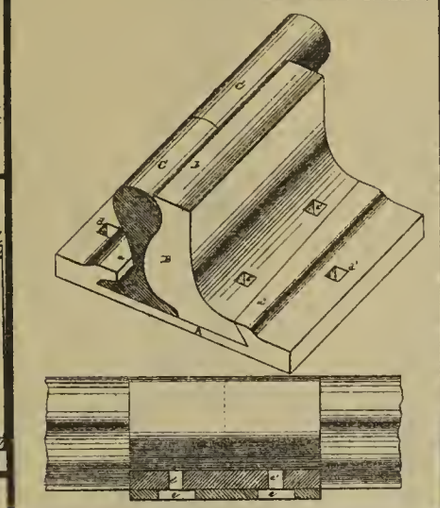


109,416. H. M. JOHNSTON AND F. BECK PREPARATION OF MICA.

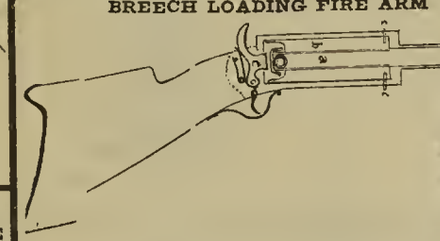
109,417. B. F. JOSLYN. REVOLVING FIRE ARM.



109,418. C. R. JOYCE RAILWAY RAIL CHAIR

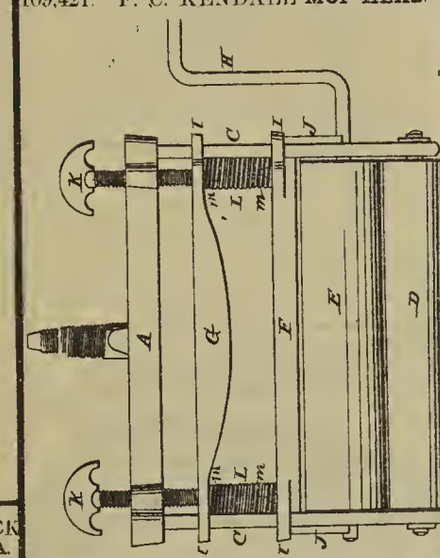


109,419. A. B. KAY. BREECH LOADING FIRE ARM

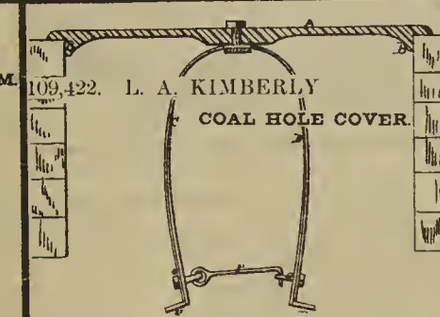


109,420. J. KAYE. JR PRESERVING EGGS

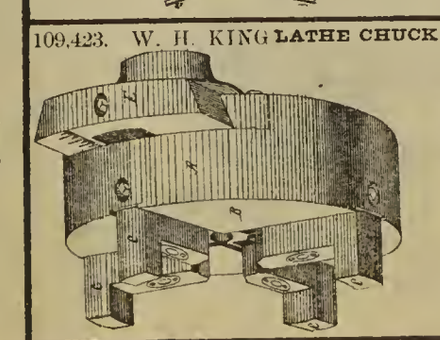
109,421. F. C. KENDALL MOP HEAD.



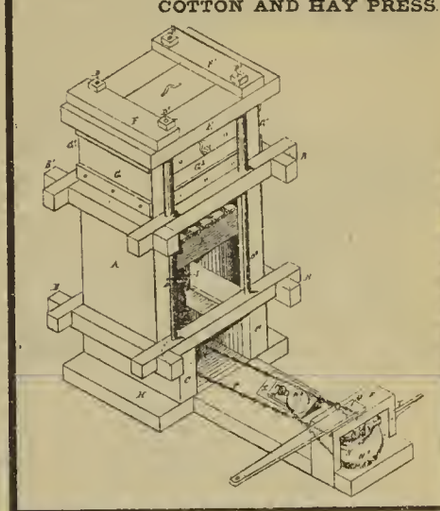
109,422. L. A. KIMBERLY COAL HOLE COVER.



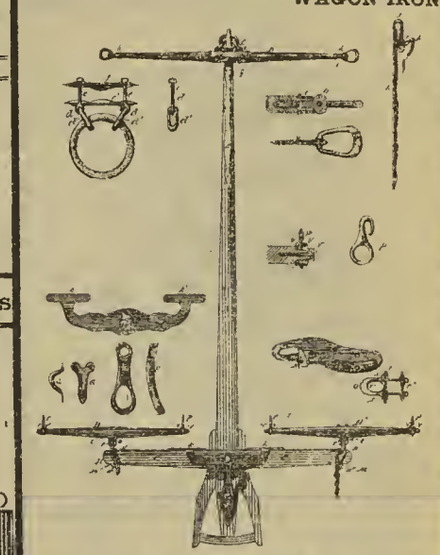
109,423. W. H. KING LATHE CHUCK



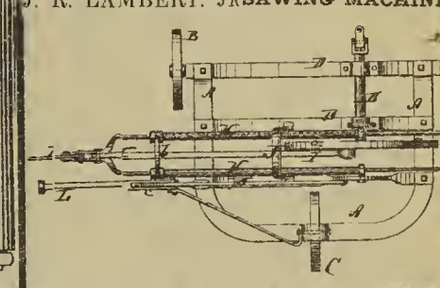
109,424. D. KNOWLES COTTON AND HAY PRESS.



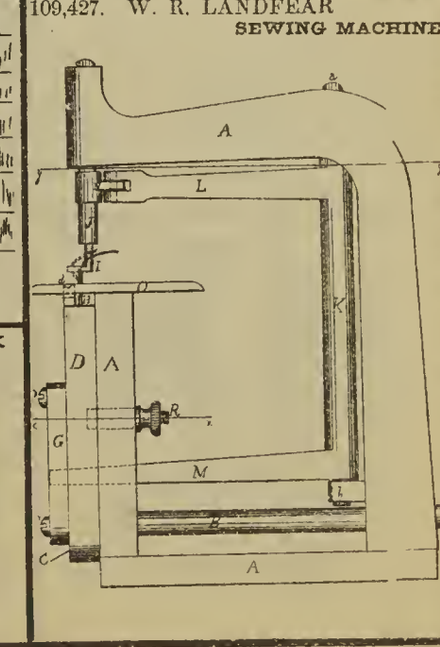
109,425. H. C. KOCHENSPERGER WAGON IRON.



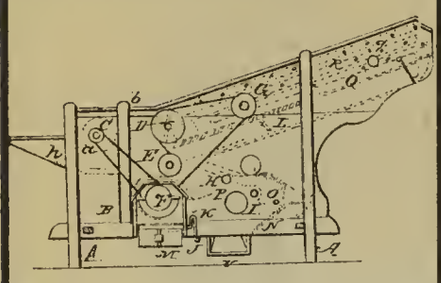
109,426. J. R. LAMBERT, SR., AND J. R. LAMBERT, JR SAWING MACHINE



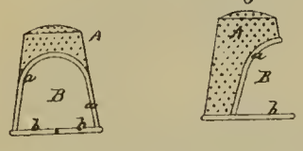
109,427. W. R. LANDFEAR SEWING MACHINE.



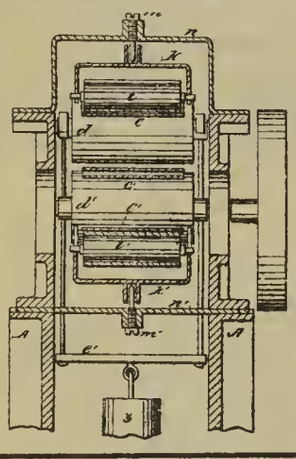
109,428. J. S. LANDIS COMBINED THRASHER AND GRAIN SEPARATOR.



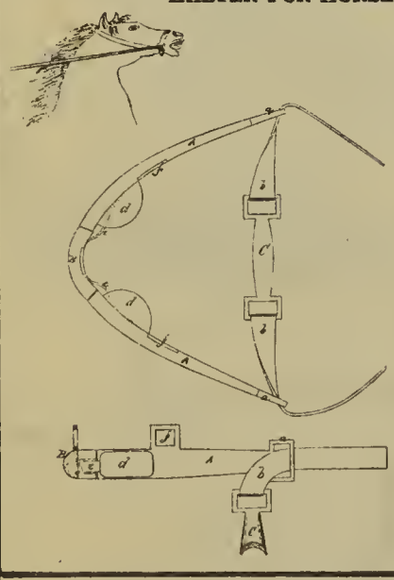
109,429. A. H. LAW SEWING THIMBLE



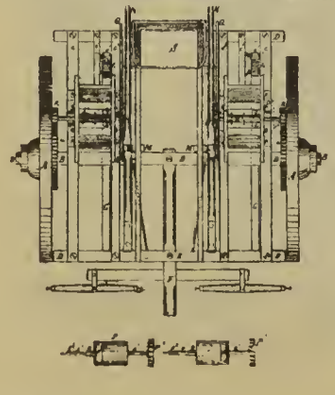
109,430 C. P. LEAVITT DRAWING FRAME



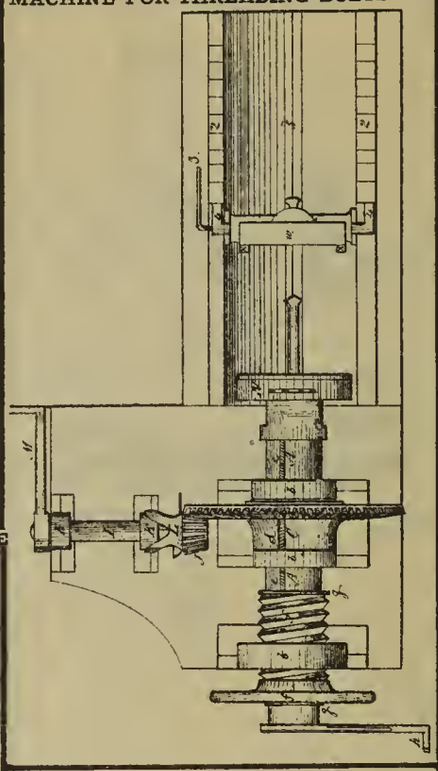
109,431. A. LE PLONGEON HALTER FOR HORSES.



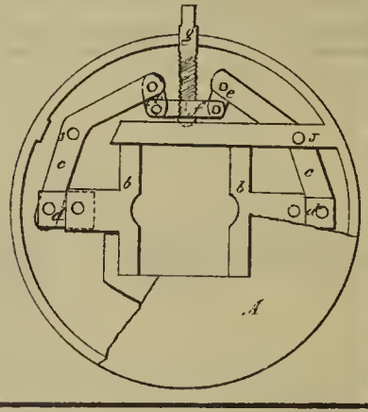
109,432. J. LEWIS. CULTIVATOR AND SEEDER COMBINED



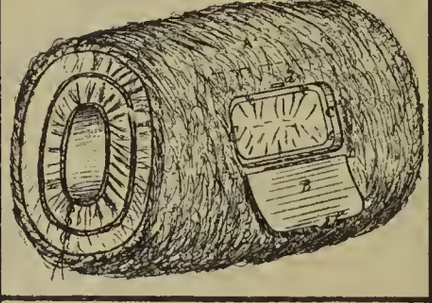
109,433. M. LOVE. MACHINE FOR THREADING BOLTS.



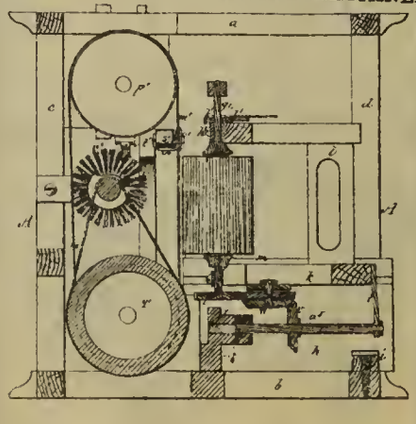
109,434. M. LOVE CHUCK.



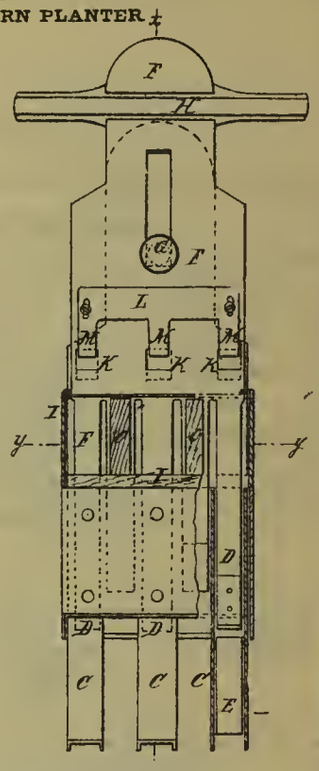
109,435. H. MANNECK AND C. STROHMENGER. COMBINED MUFF AND PORTEMONNAIE.



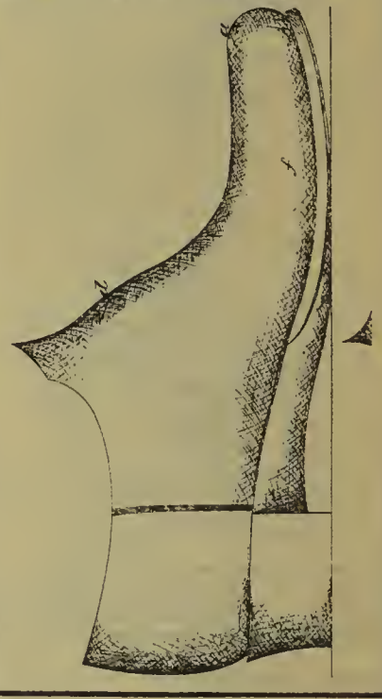
109,436. C. H. MAYO SAWING MACHINE.



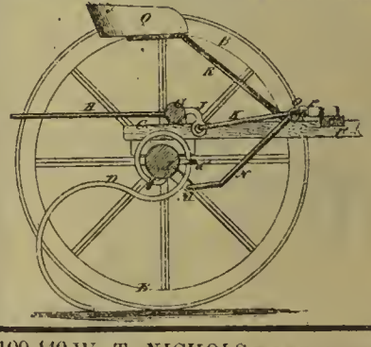
109,437. P. McCOLLUM HAND CORN PLANTER.



109,438. J. McCOMBER METHOD OF CONSTRUCTING BOOTS AND SHOES.

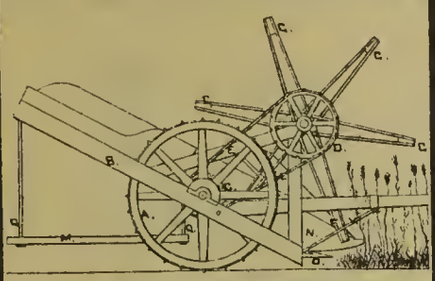


109,439. O. T. NANNY. HORSE HAY RAKE.

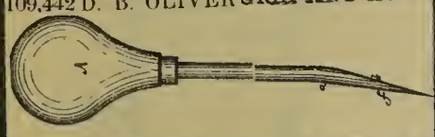


109,440 W. T. NICHOLS. ROAD SCRAPER

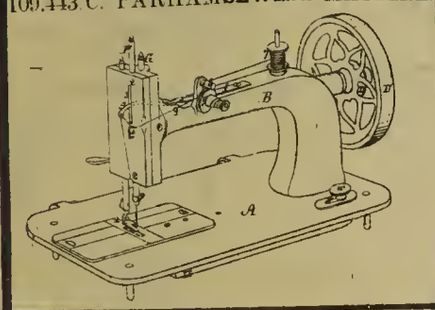
109,441 G. OERLLEIN HARVESTER RAKE



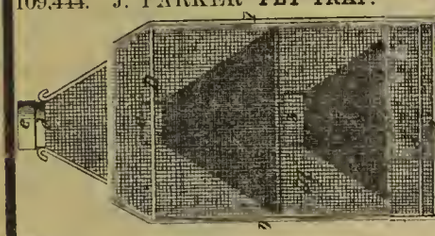
109,442 D. B. OLIVER GRAFTING AWL



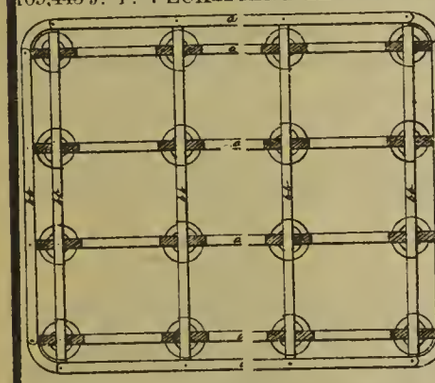
109,443 C. PARHAM SEWING MACHINE.



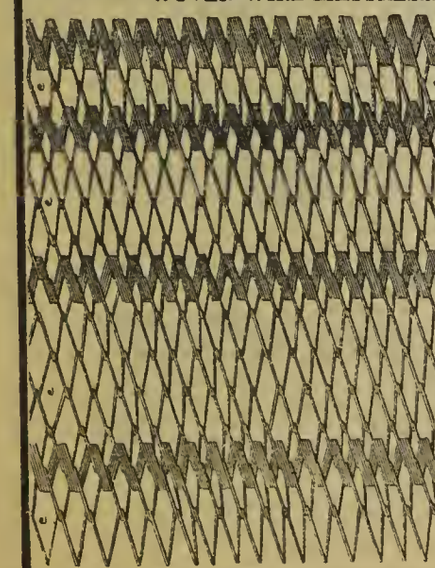
109,444. J. PARKER FLY TRAP.



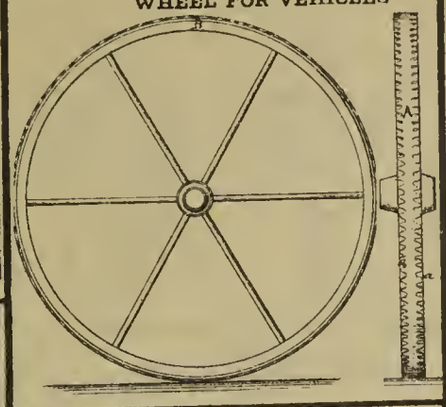
109,445 J. F. PECK SPRING BED BOTTOM



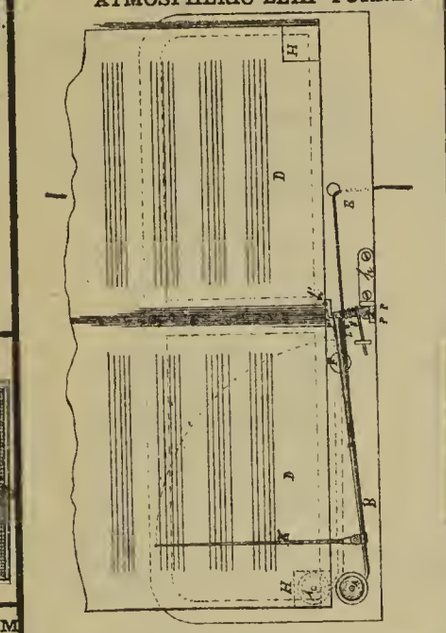
109,446. G. C. PERKINS WOVEN WIRE MATTRESS.



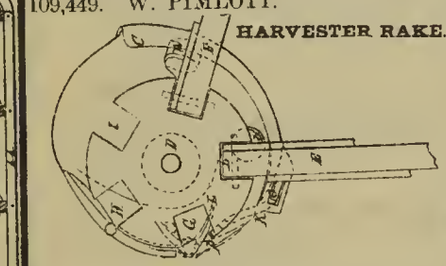
109,447. C. V. PETTIBONE WHEEL FOR VEHICLES



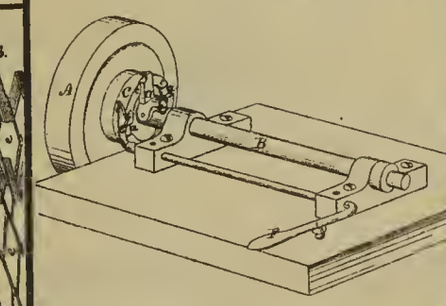
109,448. C. P. CLAYTON AND A. K. TUTTLE ATMOSPHERIC LEAF TURNER.



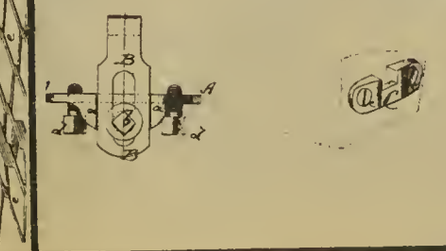
109,449. W. PIMLOTT. HARVESTER RAKE.



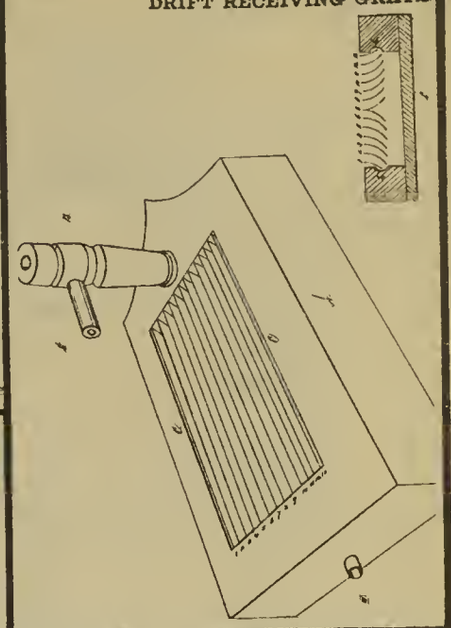
109,450. J. E. PLUMMER AND J. P. NOYES. CLUTCH FOR MACHINERY



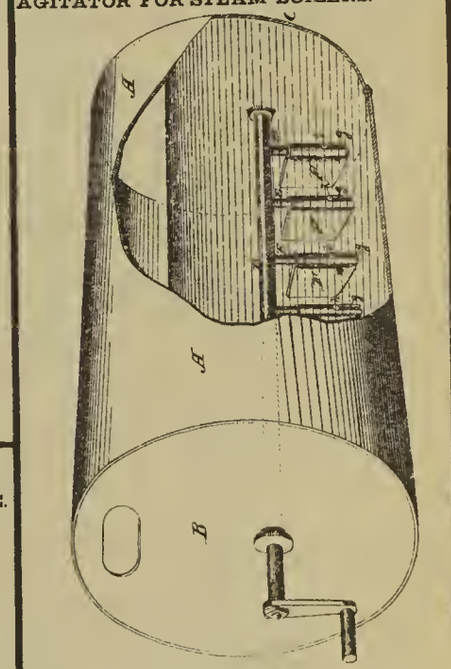
109,451. F. C. POOLE AND H. HOWE SKATE FASTENING.



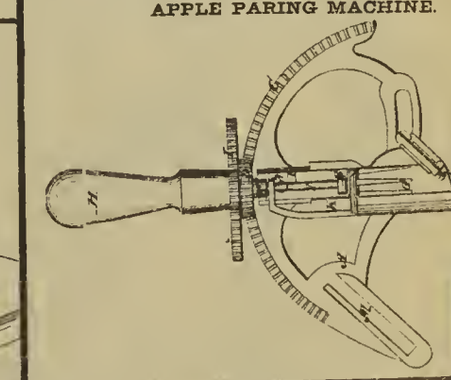
109,452. W. N. REED DRIFT RECEIVING GRATE.



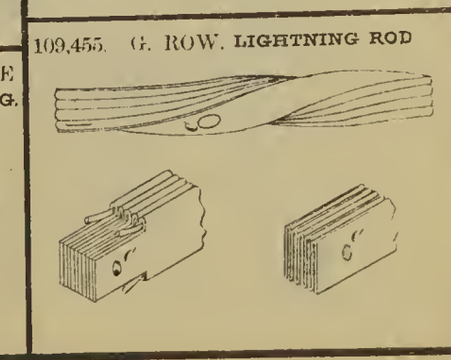
109,453. B. W. REYNOLDS. SEDIMENT AGITATOR FOR STEAM BOILERS.



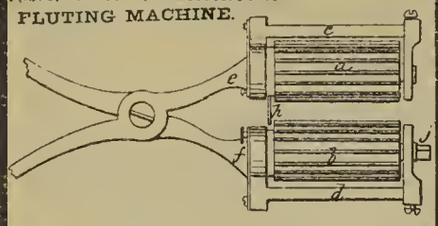
109,454. W. ROBB, 2nd. APPLE PARING MACHINE.



109,455. G. ROW. LIGHTNING ROD

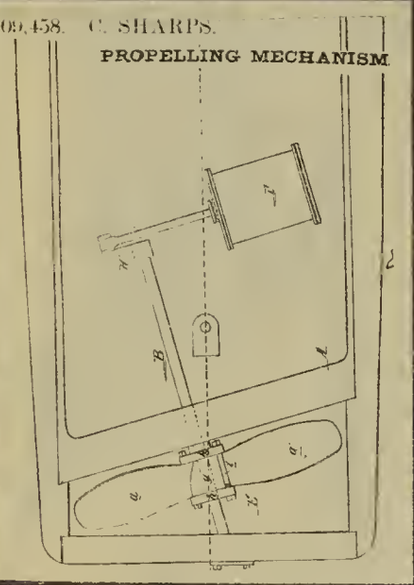


109,456. H. SAUERBIER
FLUTING MACHINE.

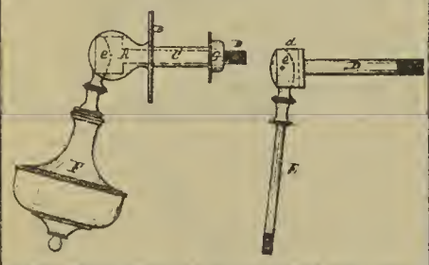


109,457. S. K. SEELYE
COMBINATION LOCK

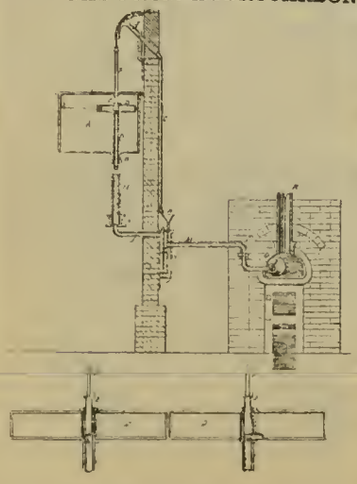
109,458. C. SHARPS.
PROPELLING MECHANISM.



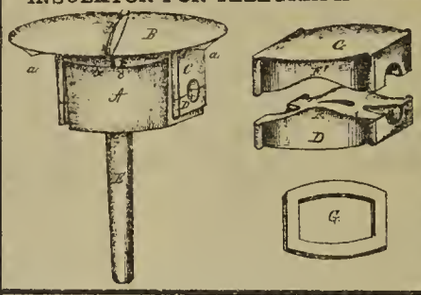
109,459. J. H. SHELTON
FURNITURE KNOB.



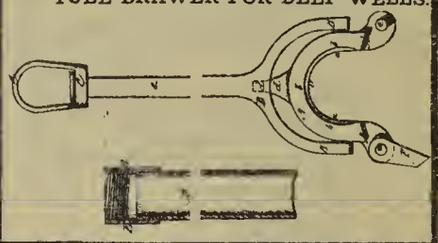
109,460. J. R. SMEDBURG GENERATING GAS FROM HYDROCARBONS.



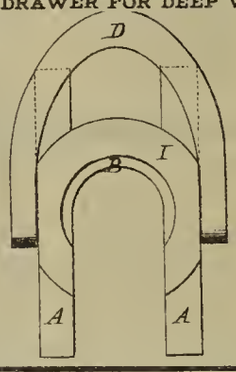
109,461. A. G. SMITH AND W. PETTINGELL.
INSULATOR FOR TELEGRAPH WIRES



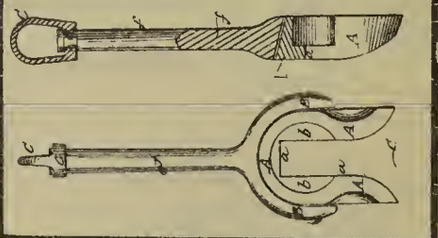
109,462. J. P. SMITH
TUBE DRAWER FOR DEEP WELLS.



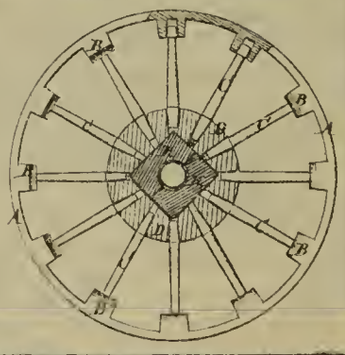
109,463. J. P. SMITH
TUBE DRAWER FOR DEEP WELLS.



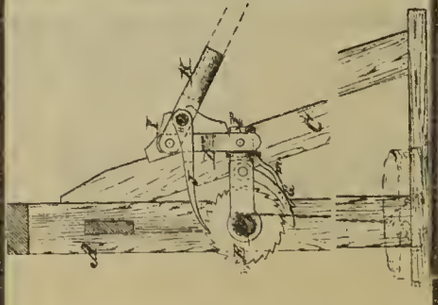
109,464. J. P. SMITH SUCKER ROD DRAWER FOR DEEP WELLS.



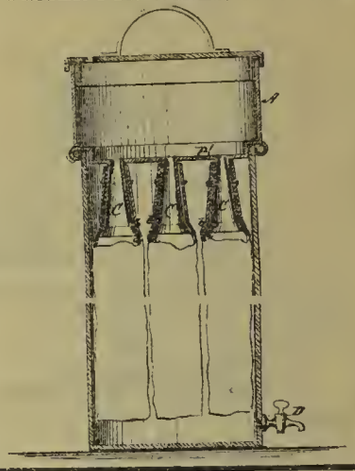
109,465. T. J. SMITH
WHEEL FOR VEHICLES



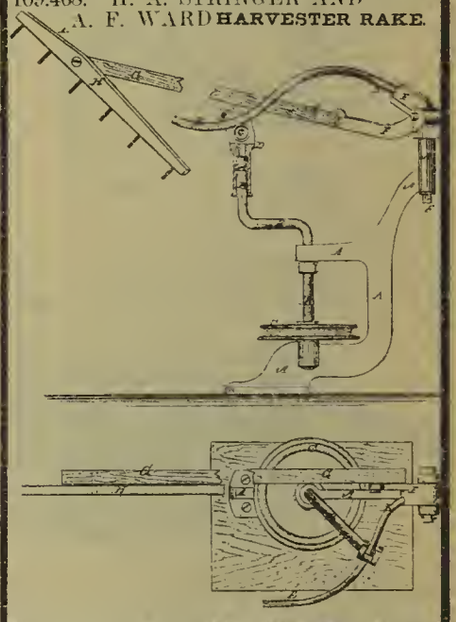
109,466. W. SMITH STUMP EXTRACTOR



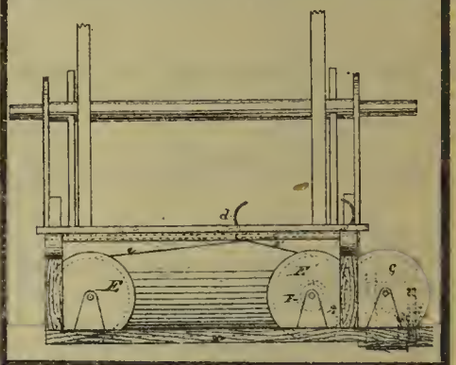
109,467. J. STRAUSS.
FILTER FOR WINES, SIRUPS, &c.



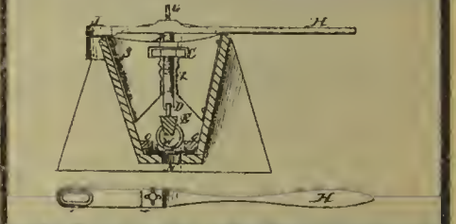
109,468. H. A. STRINGER AND A. F. WARD HARVESTER RAKE.



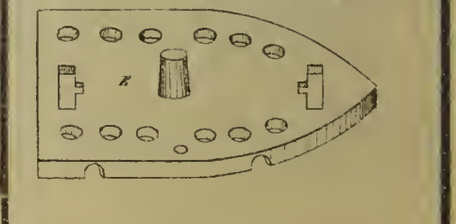
109,469. W. SUTLIFF HARVESTER RAKE



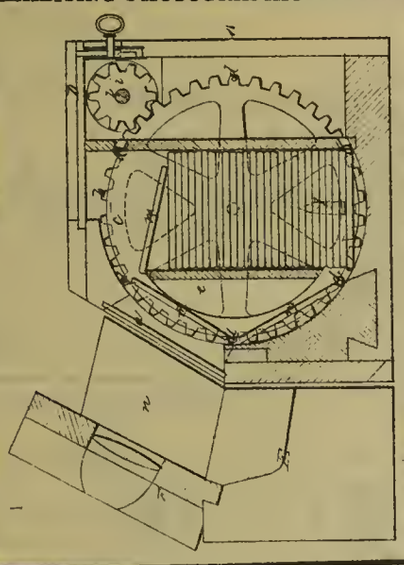
109,470. J. G. THOMPSON AND F. M. BRIGGS. SEED SOWER



109,471. J. W. THORP
SAD IRON HEATER.

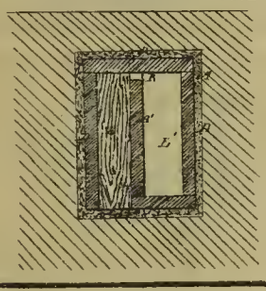


109,472. A. G. WALTON DEVICE FOR EXHIBITING PHOTOGRAPHIC PICTURES



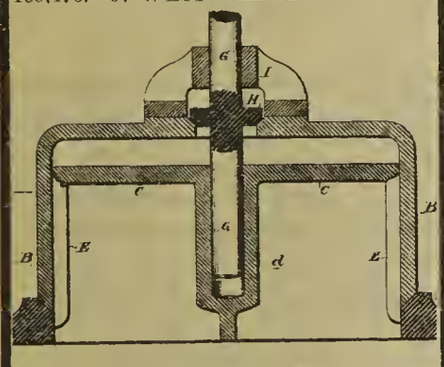
109,473. W. F. WARBURTON VENTILATOR FOR HATS.

109,474. S. H. WARNER UNDERGROUND DRAIN.

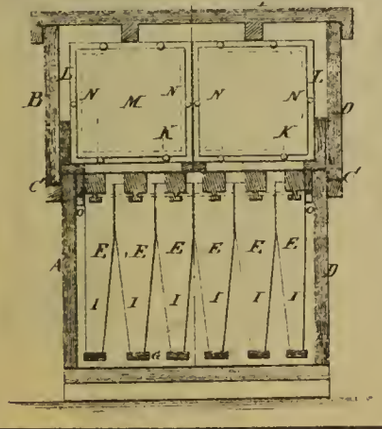


109,475. L. WATROUS ELECTROPLATING WITH NICKEL THE METALLIC PARTS OF COTTON GINS.

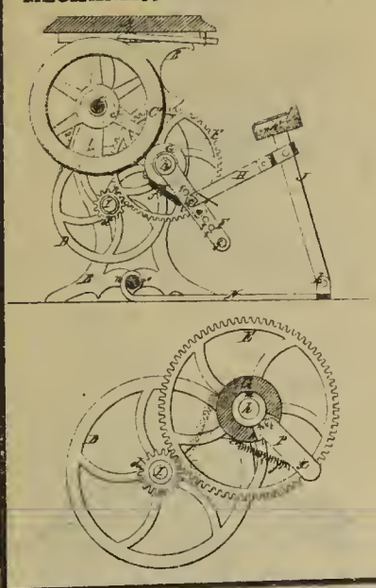
109,476. J. WEST VALVE.



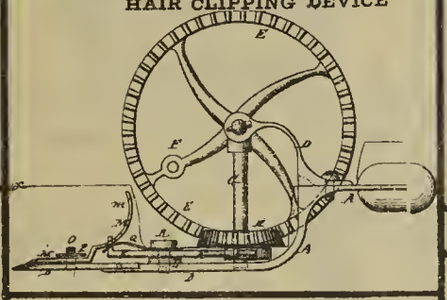
109,477. G. T. WHEELER BEE HIVE.



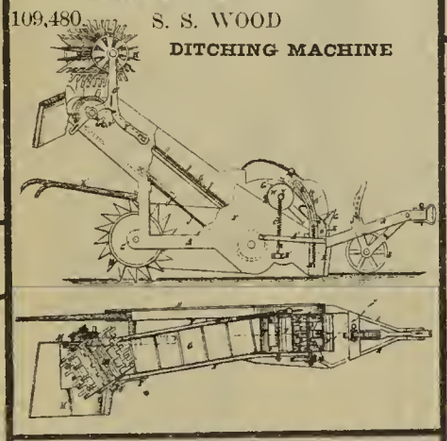
109,478. A. WHITTEMORE MOTIVE MECHANISM OF SEWING MACHINES.



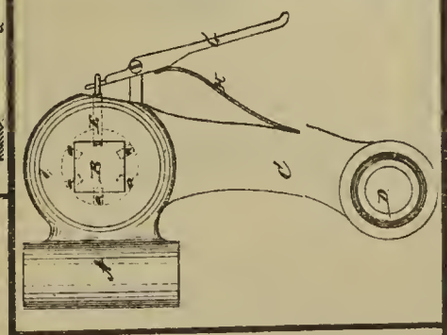
109,479. J. C. WILSON HAIR CLIPPING DEVICE



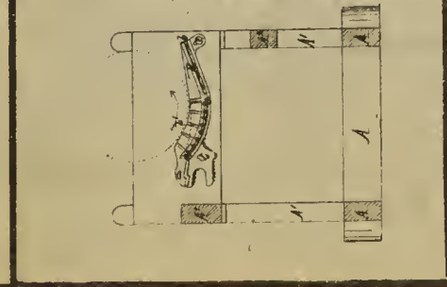
109,480. S. S. WOOD DITCHING MACHINE



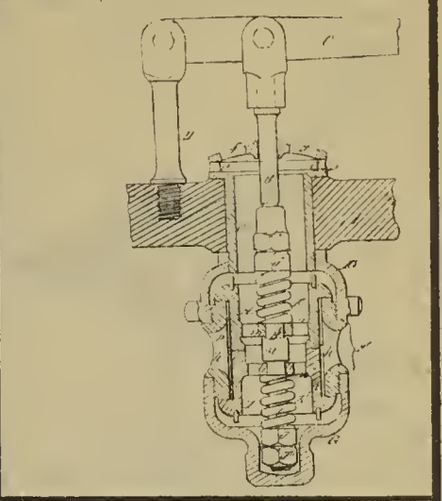
109,481. J. D. WRIGHT MEANS FOR ADJUSTING THE GRAIN WHEEL OF HARVESTERS



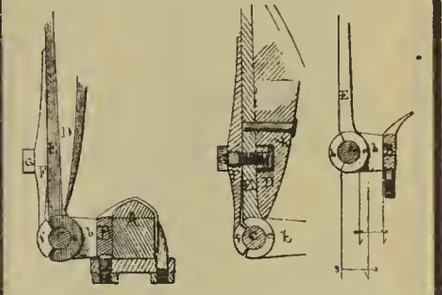
109,482. J. ALLONAS THRASHING MACHINE.



109,483. A. C. ANCONA SAFETY VALVE.



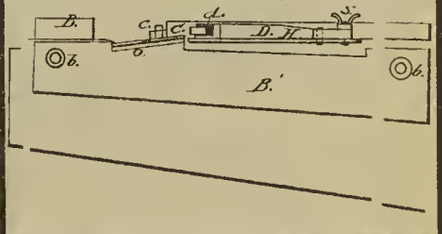
109,484. W. W. ANDERSON THILL COUPLING



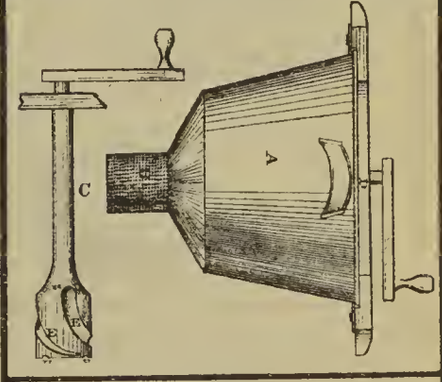
109,485. R. A. BEATTIE VARNISH.

109,486. F. BECK. COATING AND ORNAMENTING THE SURFACE OF PAPER CLOTH &c.

109,487. F. A. BIXLER DEVICE FOR CUTTING SLATS FOR WINDOW SHADES.

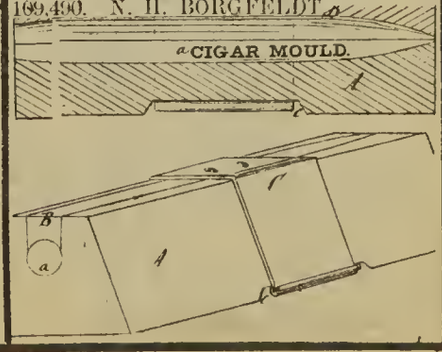


109,488. H. BLAKE CREAM STRAINER

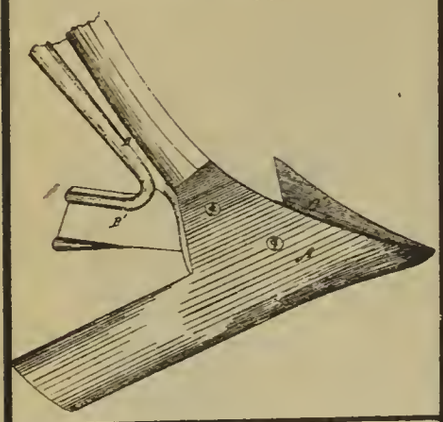


109,489. S. BORDEN PREPARATION OF GARANCINE

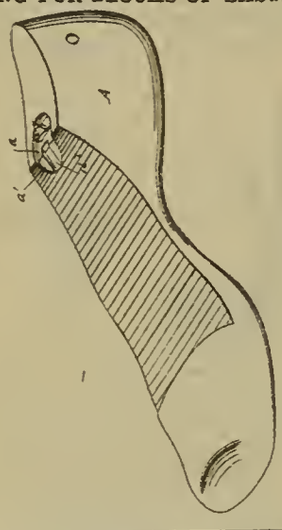
109,490. N. H. BORGFELDT CIGAR MOULD.



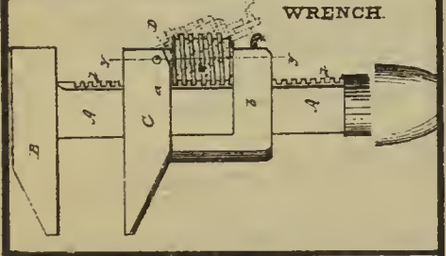
109,491. T. E. C. BRINLY
COTTON SWEEP



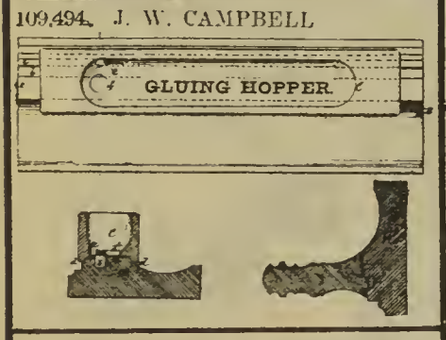
109,492. J. BULLIVANT.
FASTENING FOR BLOCKS OF LASTS.



109,493. P. BURRESS AND C. CLINE
WRENCH.

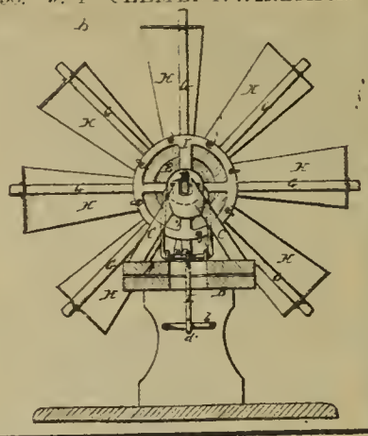


109,494. J. W. CAMPBELL
GLUING HOPPER.

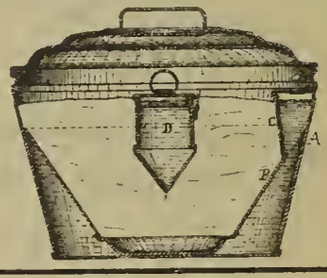


109,495. P. CEREDO. NUT CRACKER.

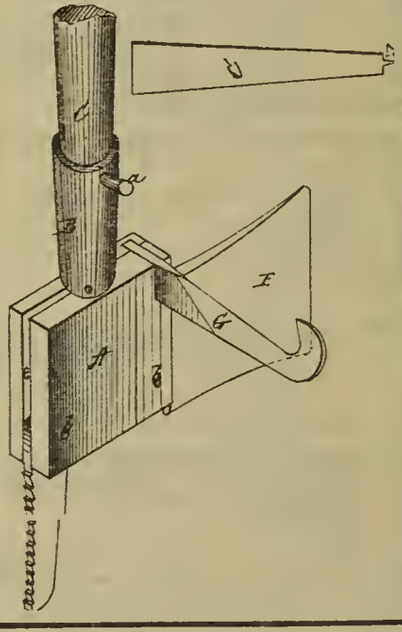
109,496. J. P. CLEMENT. WINDMILL.



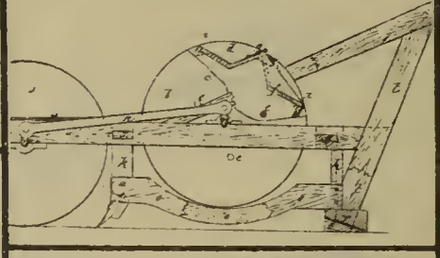
109,497. W. A. DAGGETT BREAD PAN.



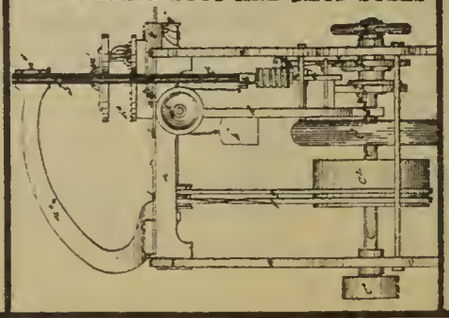
109,498. C. W. DAWSON.
COMBINED PRUNING IMPLEMENT.



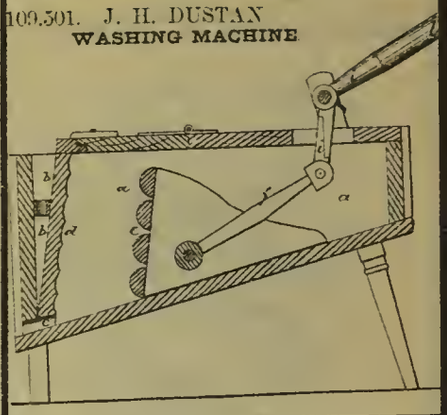
109,499. J. S. DICKASON
COTTON PLANTER.



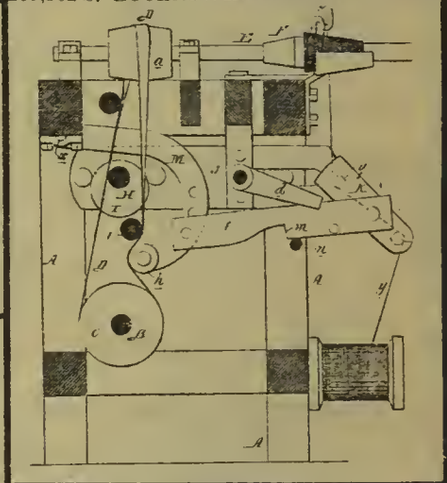
109,500. W. DUCHEMIN. MACHINE FOR MOLDING, ROUNDING, AND CHANNELING BOOT AND SHOE SOLES



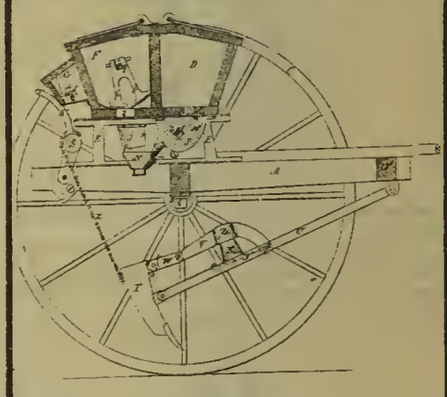
109,501. J. H. DUSTAN
WASHING MACHINE



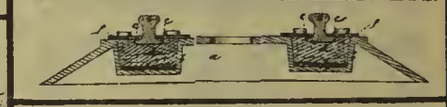
109,502 S. ECCLES WINDING MACHINE.



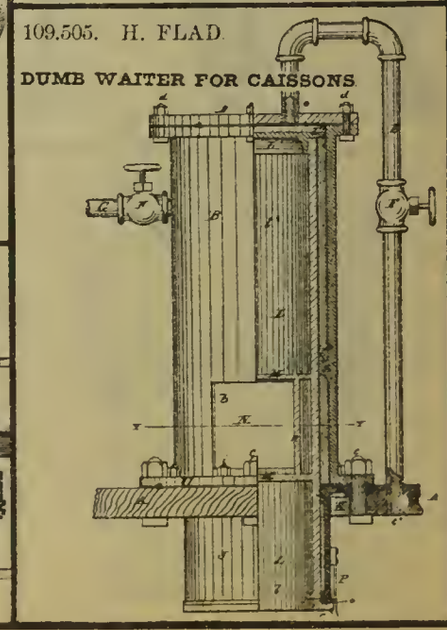
109,503 S. M. FIREY SEEDING MACHINE



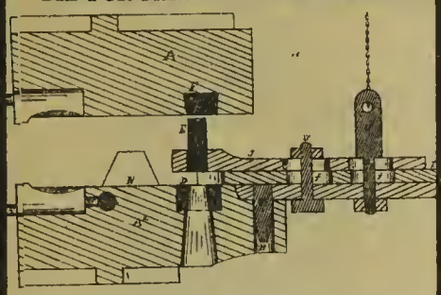
109,504. C. FISHER
METALLIC SLEEPER FOR RAILWAYS.



109,505. H. FLAD.
DUMB WAITER FOR CAISSONS.



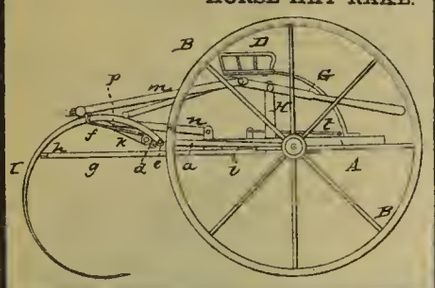
109,506. W. FORSHAW
DIE FOR MAKING CHORD BARS.



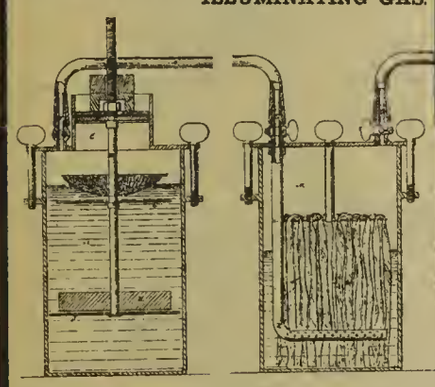
109,507. W. GALLOWAY
SECURING THE TOPS OF FRUIT JARS.

109,508. C. GODFREY AND R. LIGHTHALL PROTECTING IRON AGAINST CORROSION

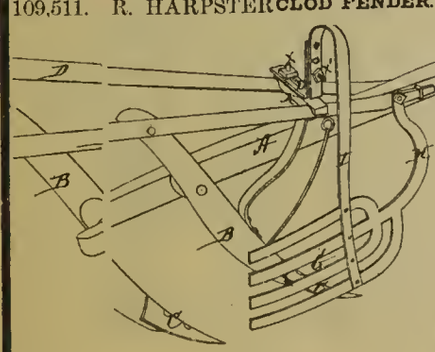
109,509. H. N. GREEN.
HORSE HAY RAKE.



109,510 A. W. HALL. APPARATUS FOR THE MANUFACTURE OF ILLUMINATING GAS.

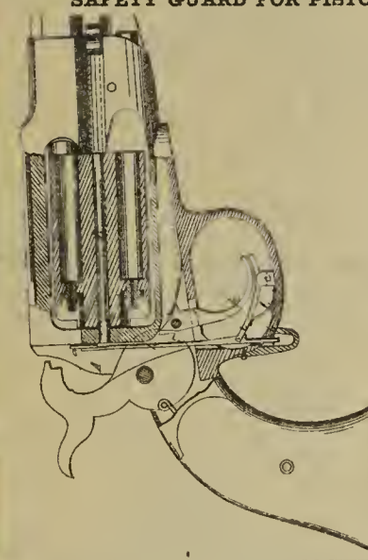


109,511. R. HARPSTER CLOD FENDER.

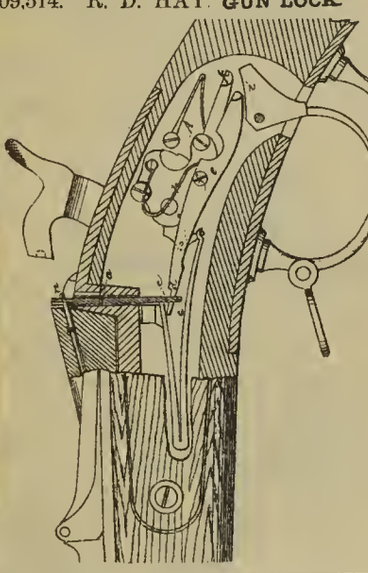


109,512. M. HARRINGTON
GATE AND DOOR SPRING.

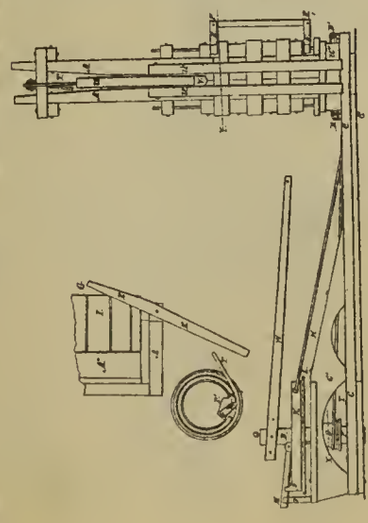
109,513. R. D. HAY.
SAFETY GUARD FOR PISTOLS.



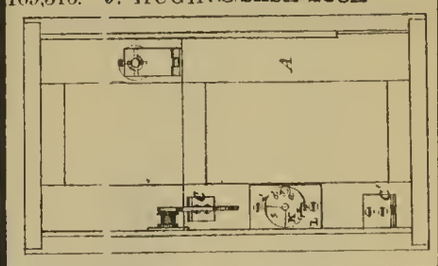
109,514. R. D. HAY. GUN LOCK.



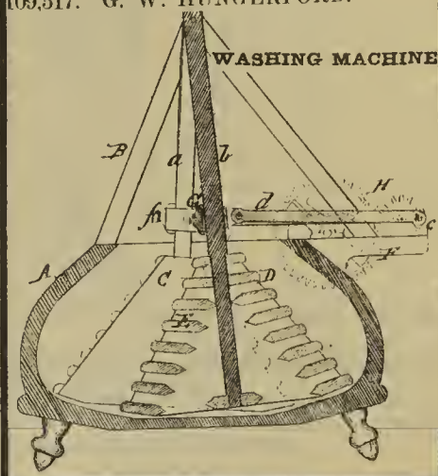
109,515. E. HILL. BALING PRESS.



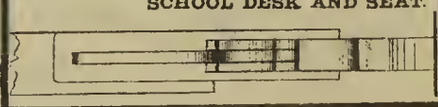
109,516. J. HUGHES. SASH LOCK



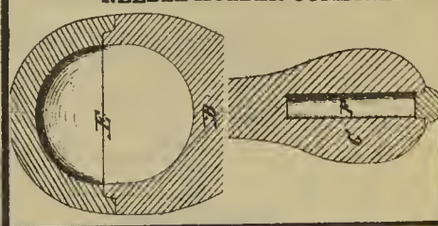
109,517. G. W. HUNGERFORD.
WASHING MACHINE



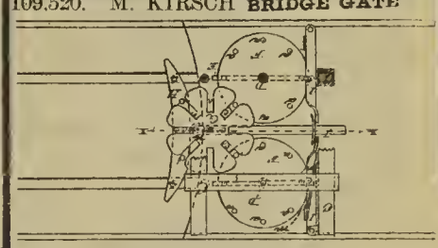
109,518. N. JOHNSON
SCHOOL DESK AND SEAT.



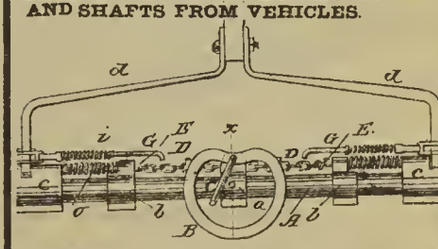
109,519. D. B. KEITH.
STOCKING LAST AND YARN AND NEEDLE HOLDER COMBINED.



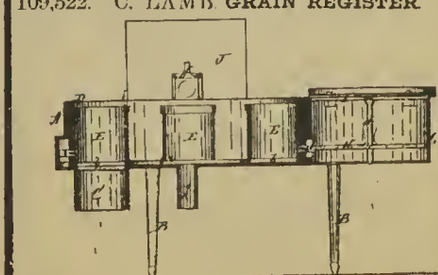
109,520. M. KIRSCH BRIDGE GATE



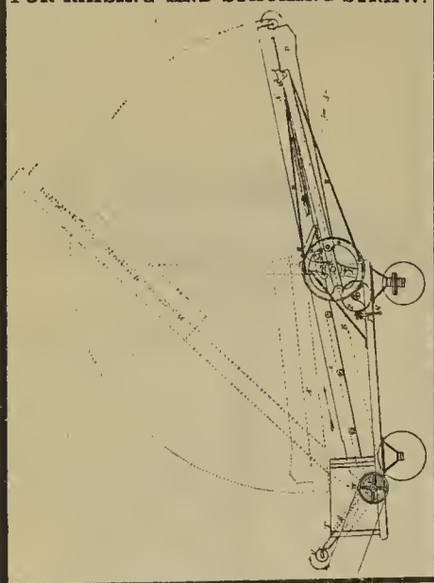
109,521. L. O. KUNZE
APPARATUS FOR DETACHING POLES AND SHAFTS FROM VEHICLES.



109,522. C. LAMB. GRAIN REGISTER.

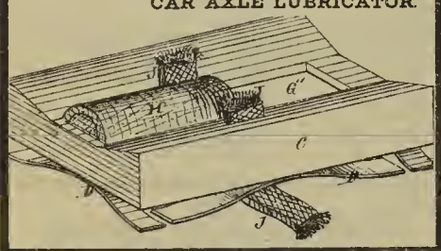


109,523. S. LEWIN ELEVATOR FOR RAISING AND STACKING STRAW.

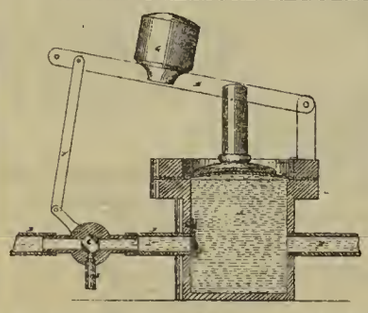


109,524. R. S. LEWIS. CONCRETE COMPOSITION FOR WALKS FLOORING, &c

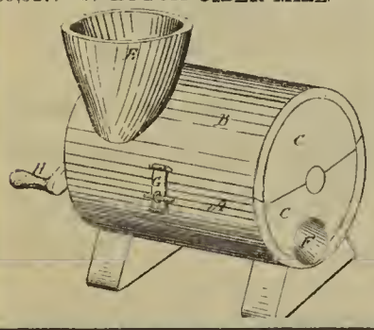
109,525. J. LICHENSTEIN CAR AXLE LUBRICATOR.



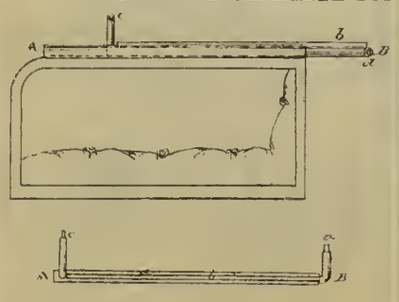
109,526. N. C. LOCK WATER PRESSURE REGULATOR.



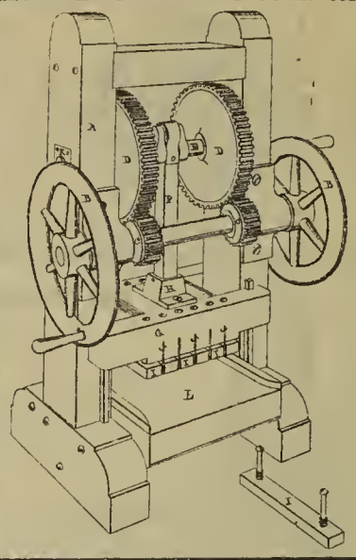
109,527. J. LYTCH CIDER MILL.



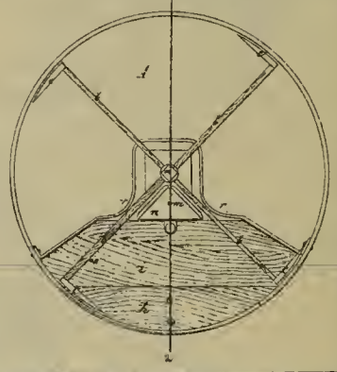
109,528. O. E. MALLORY. SHIFTING CARRIAGE TOP



109,529. W. MANNING MACHINE FOR MAKING CORN CAKE.



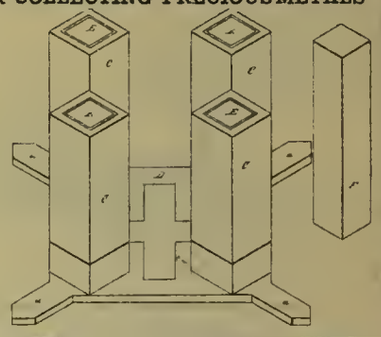
109,530. T. E. MARABLE. ANIMAL TRAP.



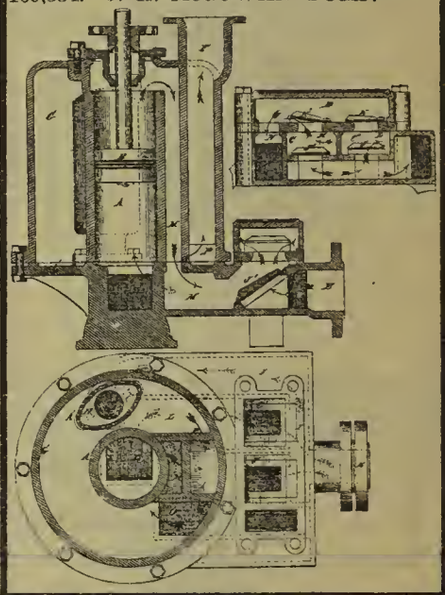
109,531 J. MARTIN SLEIGH.

109,532. W. McCORMICK AWNING FOR HORSES.

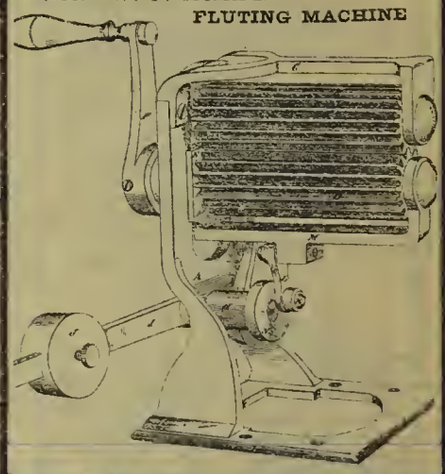
109,533 J. T. McDOUGALL APPARATUS FOR COLLECTING PRECIOUS METALS



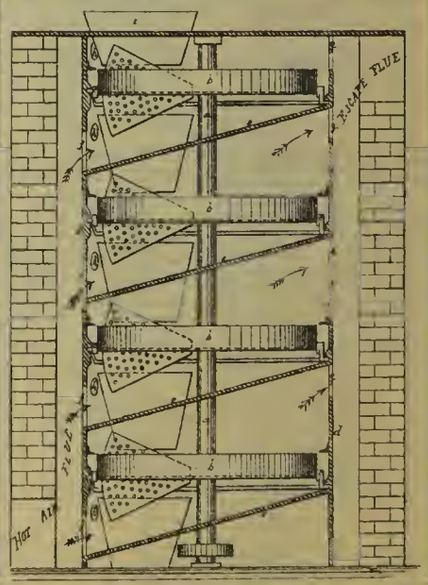
109,534. J. H. McGOWAN PUMP.



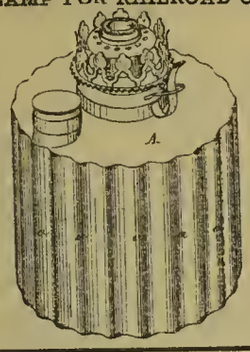
109,535. W. P. McKEE FLUTING MACHINE



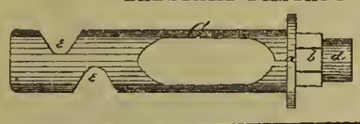
109,536. H. MERRILL. GRAIN DRIER.



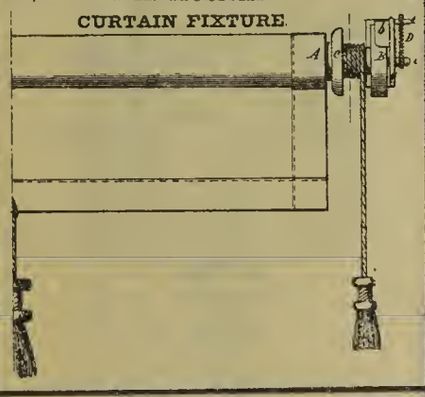
109,537. R. S. MERRILL
LAMP FOR RAILROAD CARS



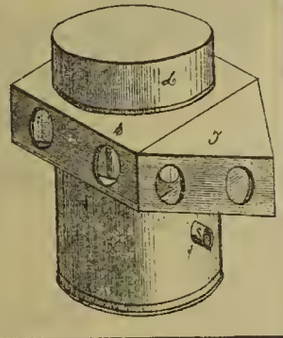
109,538. E. METS AND W. B. GEDDES
BEDSTEAD FASTENING.



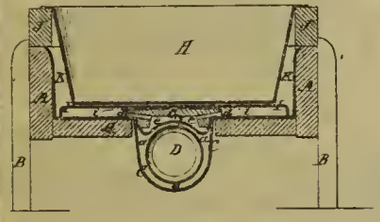
109,539. M. H. MOSMAN
CURTAIN FIXTURE.



109,540. P. MUNZINGER
CENTER SEAL FOR GAS WORKS

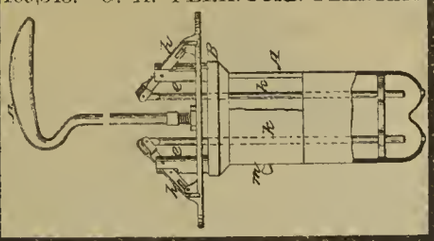


109,541. W. H. OBITTS CHEESE VAT.

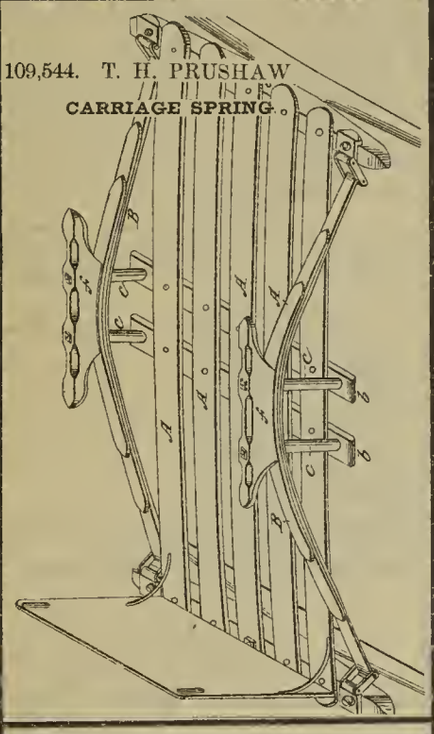


109,542. G. AND H. O'CONNOR
MILLSTONE DRESS.

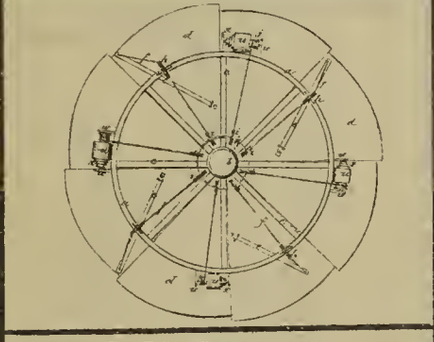
109,543. G. H. PEEK. CORN PLANTER.



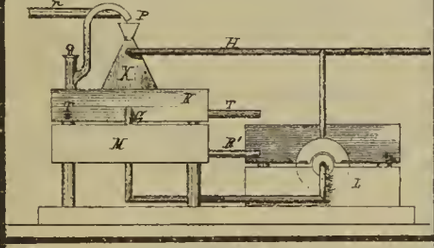
109,544. T. H. PRUSHAW
CARRIAGE SPRING.



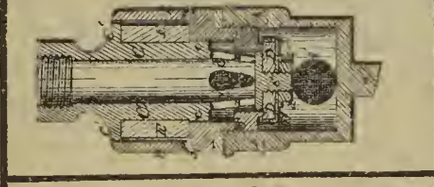
109,545. A. R. RANDAL WINDMILL.



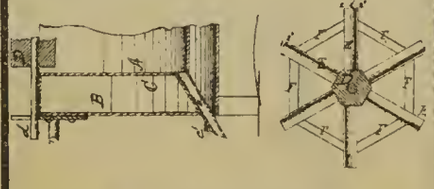
109,546. D. REYNOLDS AND
J. W. PAIGE MANUFACTURE OF SALT



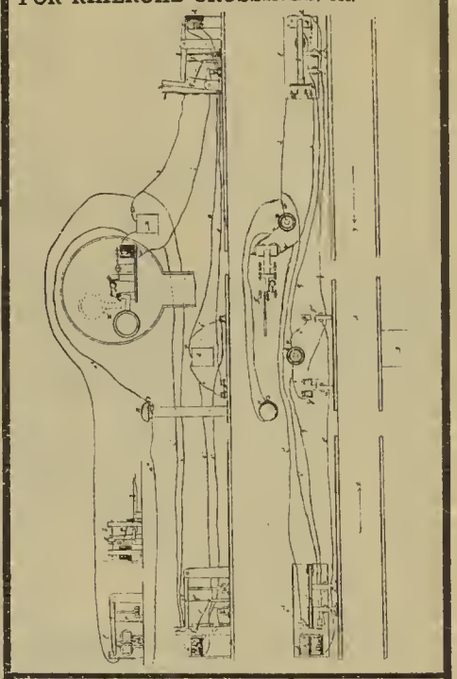
109,547. A. RICHMOND, JR HYDRANT



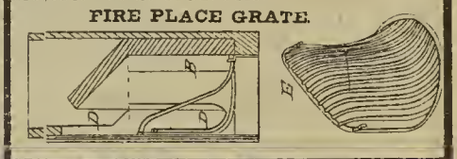
109,548. E. F. RING APPARATUS
FOR STIRRING AND COOLING LARD.



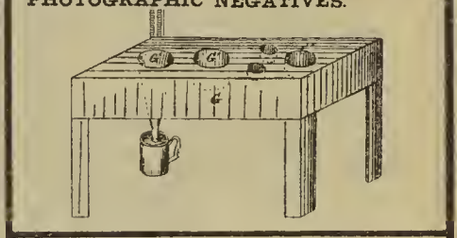
109,549. W. ROBINSON ELECTRO
MAGNETIC SIGNALING APPARATUS
FOR RAILROAD CROSSINGS, &c.



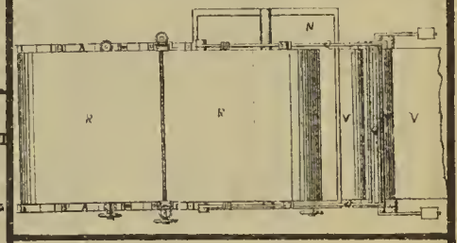
109,550. J. S. RUNYAN
FIRE PLACE GRATE.



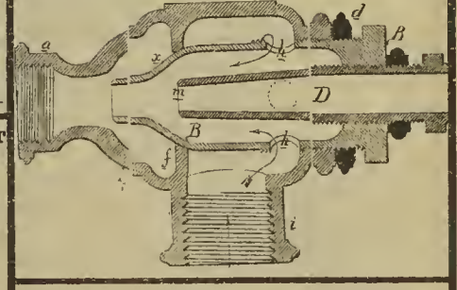
109,551. E. RYE. MODE OF PRODUCING
LITHOGRAPHIC COPIES FROM
PHOTOGRAPHIC NEGATIVES.



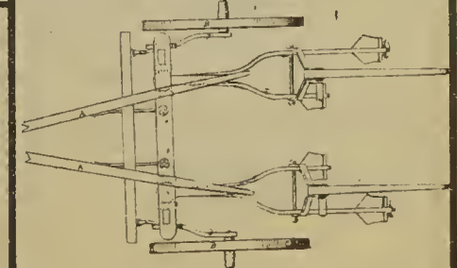
109,552. P. SCANLAN PAPER MACHINE



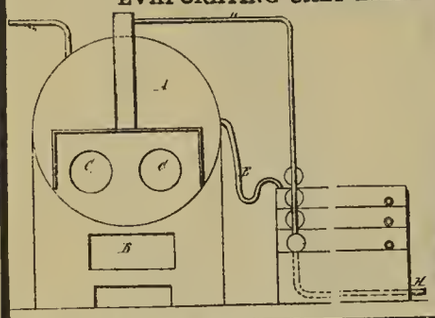
109,553. T. H. SCHRIBER. EJECTOR.



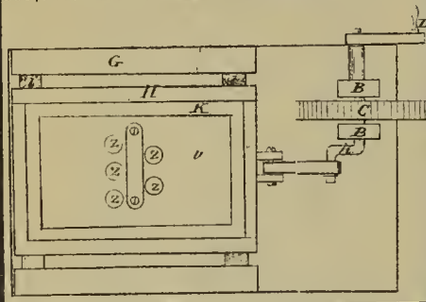
109,554. J. B. SEXTON CULTIVATOR.



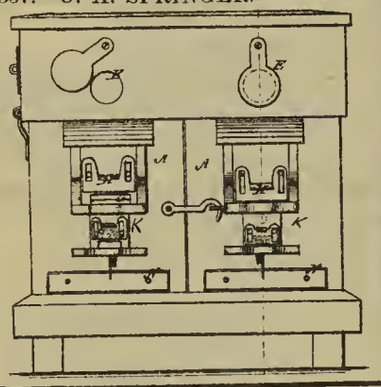
109,555. C. A. SHEPARD
EVAPORATING SALT BRINE



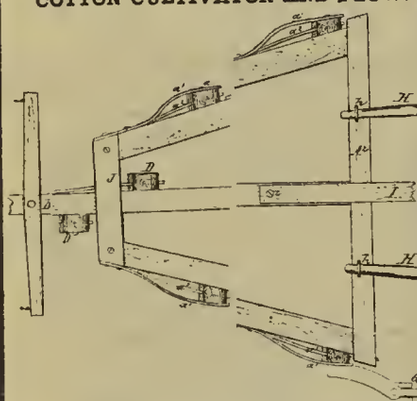
109,556. B. J. SMITH. CHURN.



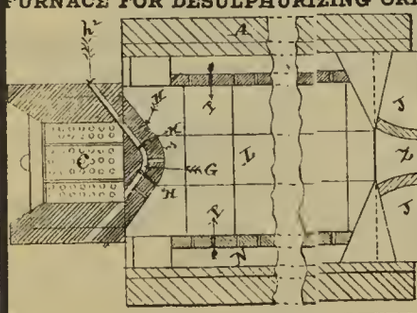
109,557. U. A. SPRINGER. BEE HIVE.



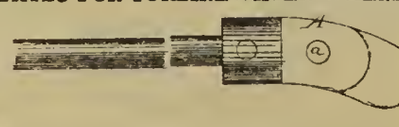
109,558. J. R. THOMAS
COTTON CULTIVATOR AND PLOW.



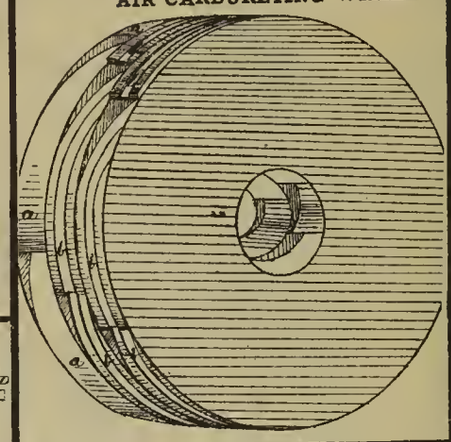
109,559. J. G. TROTTER
FURNACE FOR DESULPHURIZING ORES



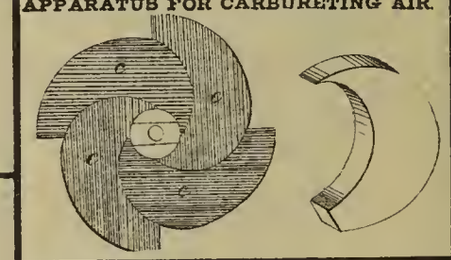
109,560 F. TRUMP LINK FOR OPERATING THE ANNULAR SERIES OF GATES FOR TURBINE WATER WHEELS



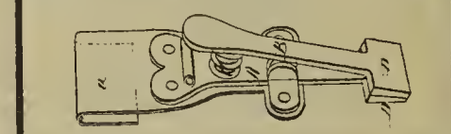
109,561. J. H. VAN HOUTEN
AIR CARBURETING WHEEL



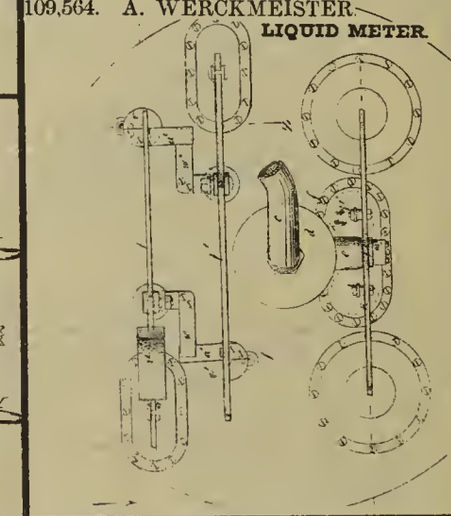
109,562. J. H. VAN HOUTEN.
APPARATUS FOR CARBURETING AIR.



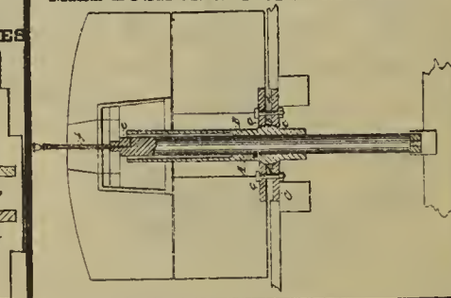
109,563. W. W. WALTON
SHOE FASTENING FOR SHOE BOXES.



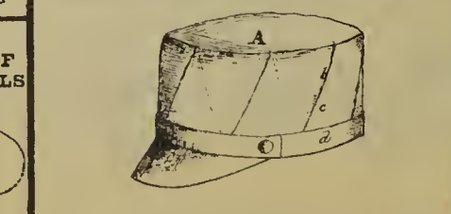
109,564. A. WERCKMEISTER.
LIQUID METER.



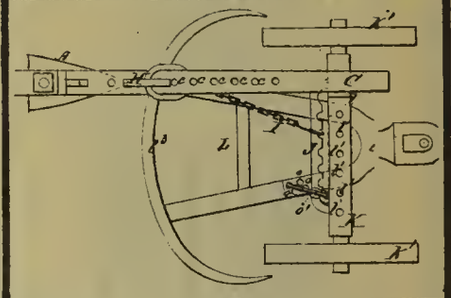
109,565. C. T. WESTON
MILL BUSH AND OTHER SPINDLES.



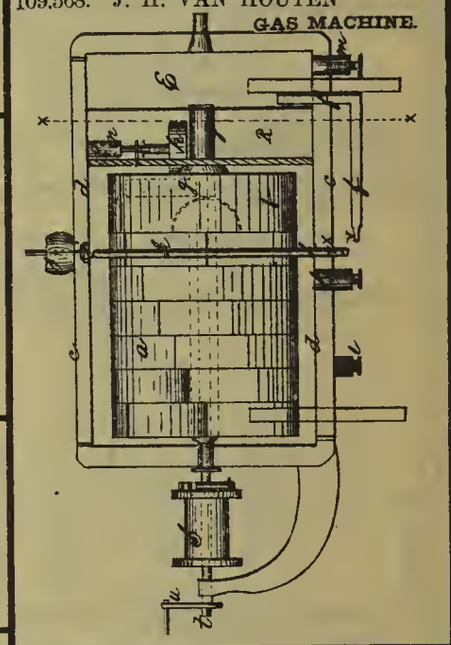
109,566. P. S. WHITE PAPER CAP.



109,567. J. ZOEBERLEIN
CARRIAGE ATTACHMENT FOR PLOWS



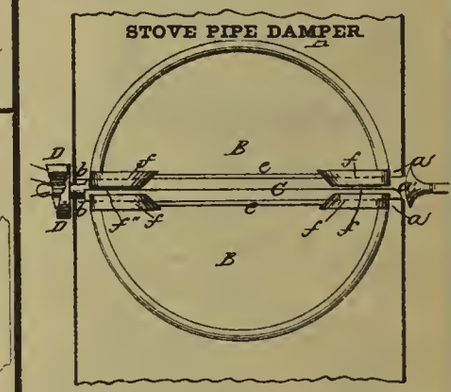
109,568. J. H. VAN HOUTEN
GAS MACHINE.



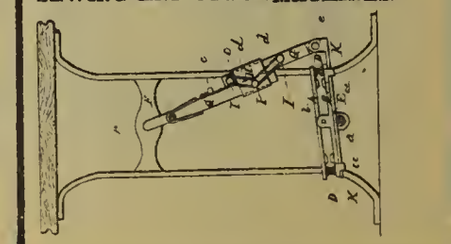
4,181. F. BECK.
COMPOUND FOR COLORING AND ORNAMENTING PAPER AND OTHER FABRICS AND MATERIALS

4,182. E. AND E. D. DITHRIDGE
LAMP CHIMNEY.

4,183. G. B. HALSTEAD.
STOVE PIPE DAMPER.



4,184. B. C. POLE. TREADLE FOR SEWING AND OTHER MACHINES.



ILLUSTRATIONS OF PATENTS

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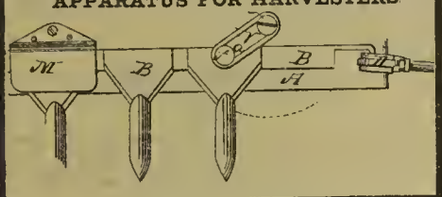
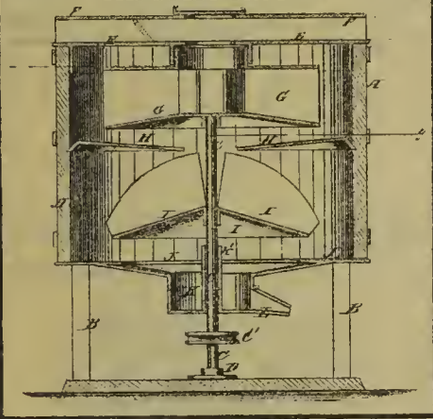
NOVEMBER 29, 1870.

109,569. J. L. ABELL CUTTING APPARATUS FOR HARVESTERS.

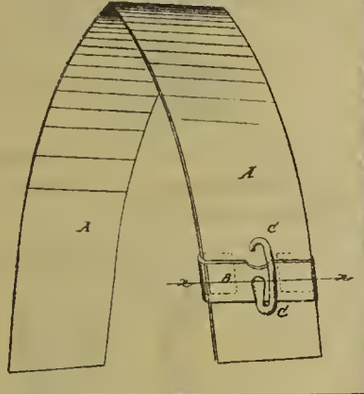


109,570. H. J. BALL. RUBBER CEMENT.

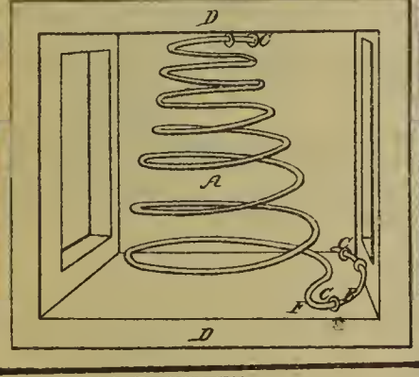
109,571. J. W. AUSTIN. APPARATUS FOR TREATING CANE JUICE WITH SULPHUROUS ACID GAS.



109,572. H. BEAGLE, JR. BACKBAND HOOK.

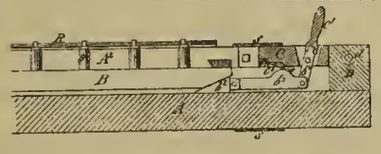


109,573. W. L. BEARDSLEY. SPIRAL SPRING FOR BEDSTEADS.



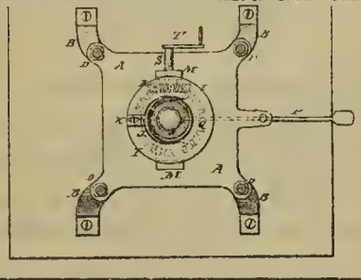
109,574. W. BENNETT. SHUTTLE FOR SEWING MACHINES.

109,575. J. BERRY. RIVETING MANDREL.



109,576. E. BIGELOW. CHEMICAL FIRE EXTINGUISHER.

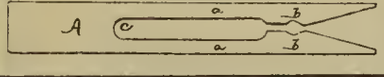
109,577. W. B. BISHOP. MACHINE FOR SOLDERING CAN CAPS.



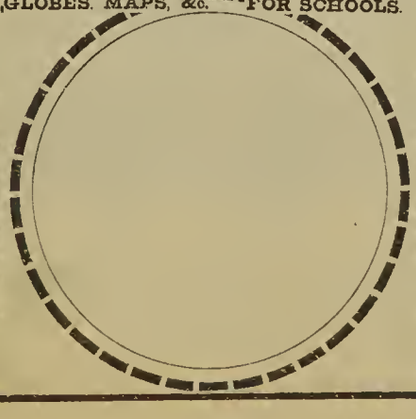
109,578. C. BOCKING. COMPOSITION FOR THE MANUFACTURE OF BOOT AND SHOE HEELS.

109,579. A. O. BOURN. ELASTIC ROLLER FOR WRINGERS, &c.

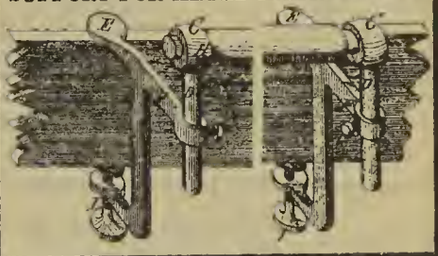
109,580. G. BRADLEY AND N. A. WALKER. CLOTHES PIN.



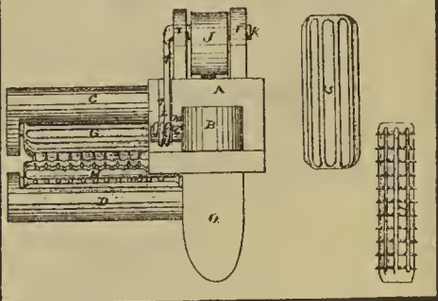
109,581. J. DE WITT BRINCKERHOFF AND J. DUTHIE. CONSTRUCTION OF GLOBES, MAPS, &c. FOR SCHOOLS.



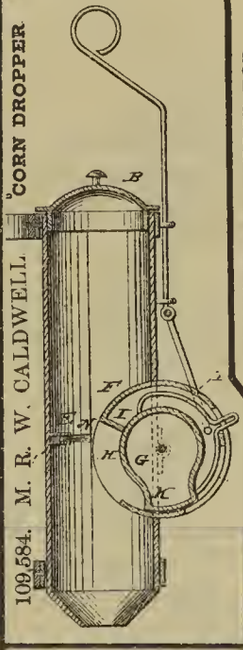
109,582. L. BUCHBERGER. ARM SUPPORT FOR KEYED INSTRUMENTS.



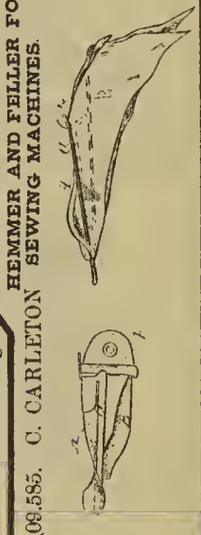
109,583. W. H. BURNS. ROLLER TEMPLE FOR LOOMS.



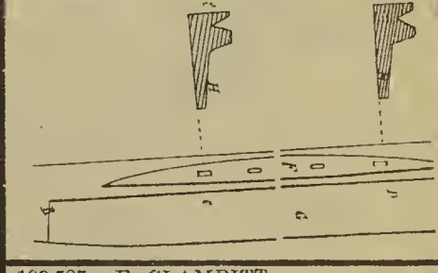
109,584. M. R. W. CALDWELL. CORN DROPPER.



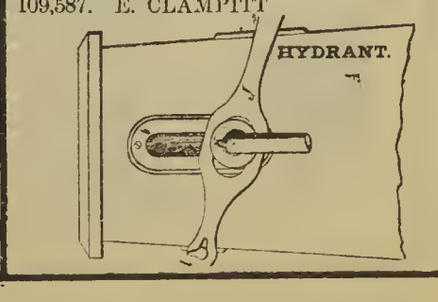
109,585. C. CARLETON. HEMMER AND FELLER FOR SEWING MACHINES.



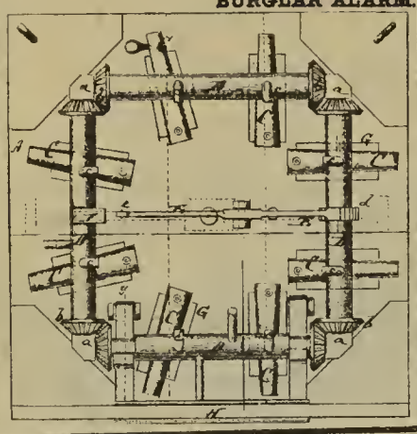
109,586. E. CATE. HORSESHOE BAR.



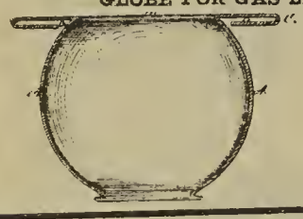
109,587. E. CLAMPITT. HYDRANT.



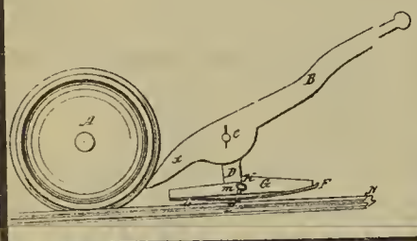
109,588. E. T. CLEGG.
BURGLAR ALARM.



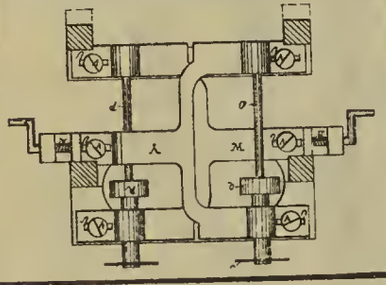
109,589. C. COLLIER
GLOBE FOR GAS LIGHTS.



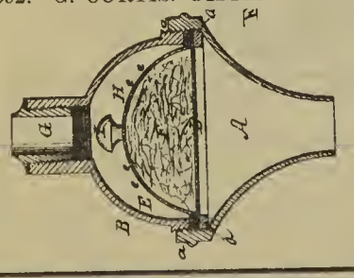
109,590. M. G. COLLINS. COMBINED RAILROAD JACK AND PINCH BAR.



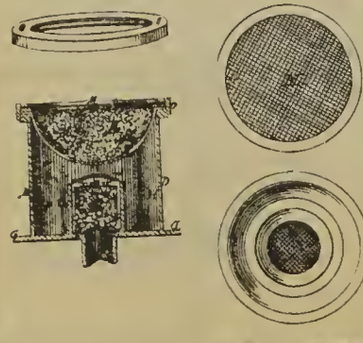
109,591. P. D. CUMMINGS.
MACHINE FOR MAKING KEY BOARDS FOR WOOD PAVEMENTS.



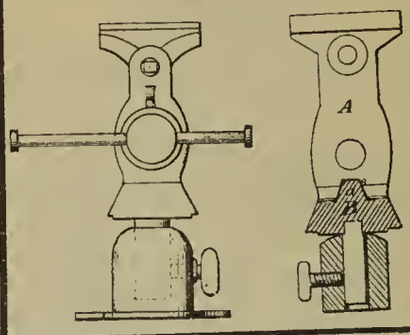
109,592. G. CURTIS. FILTER.



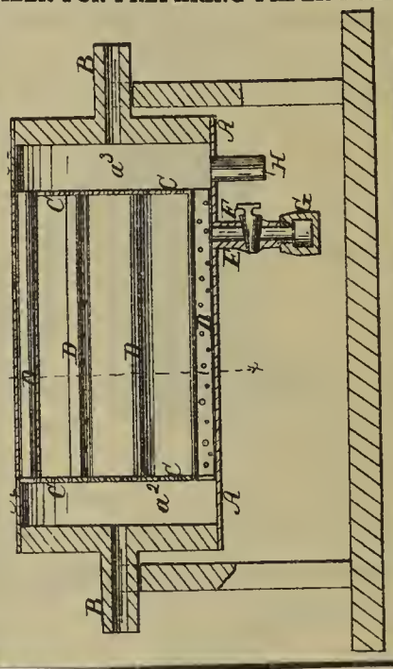
109,593. G. CURTIS FILTER.



109,594. O. DEAN
COMBINED VISE AND DRILL.



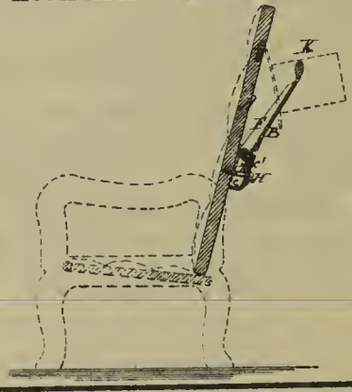
109,595. L. DEAN.
BOILER FOR PREPARING PAPER PULP



109,596. L. DEAN.
PREPARATION OF STRAW FOR THE MANUFACTURE OF PAPER.

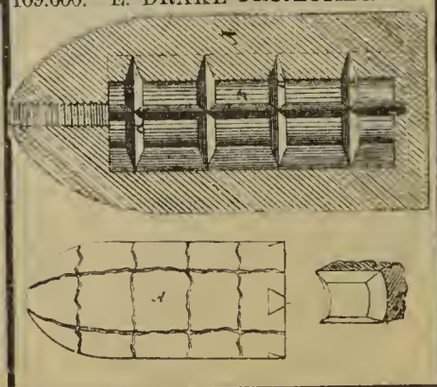
109,597. E. J. DE SMEDT.
ASPHALT PAVEMENT.

109,598. J. A. DIXON
HOOK ATTACHMENT FOR SEATS.

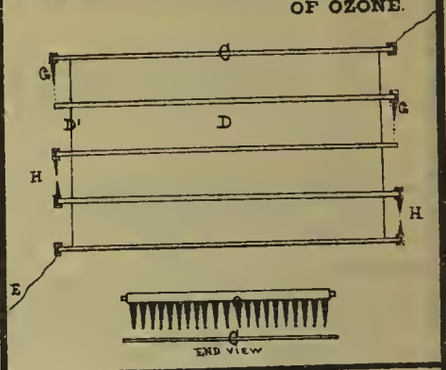


109,599. R. DOBBINS. HEALING SALVE.

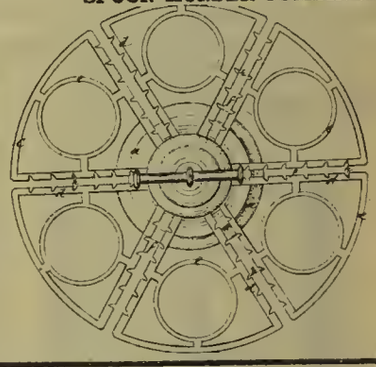
109,600. E. DRAKE PROJECTILE.



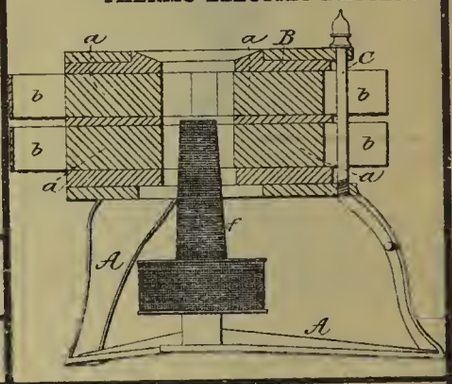
109,601. C. F. DUNDERDALE.
APPARATUS FOR THE MANUFACTURE OF OZONE.



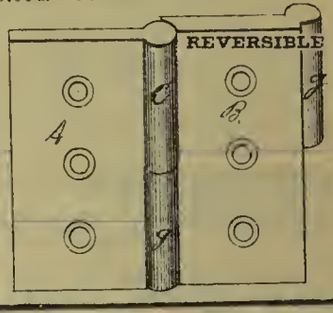
109,602. L. EVANS. CASTER AND SPOON HOLDER COMBINED.



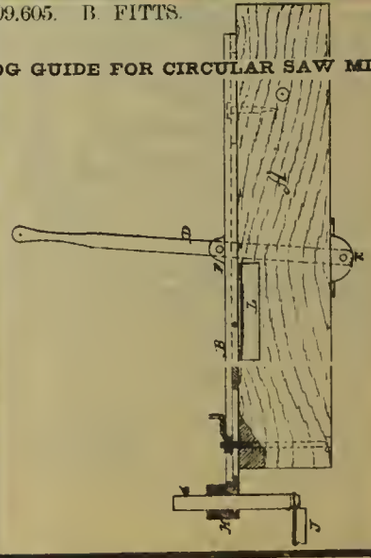
109,603. M. G. FARMER.
THERMO ELECTRIC BATTERY.



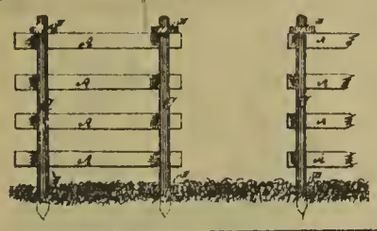
109,604. G. W. FIELD.
REVERSIBLE BUTT.



109,605. B. FITTS.
LOG GUIDE FOR CIRCULAR SAW MILLS.

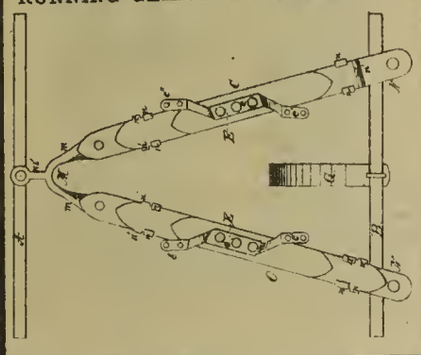


109,606. R. J. FLANNER. FENCE.

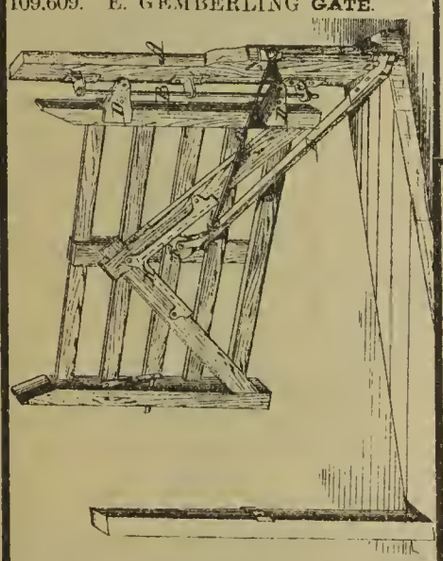


109,607. W. H. FOYE. MANUFACTURE OF ARTIFICIAL STONE.

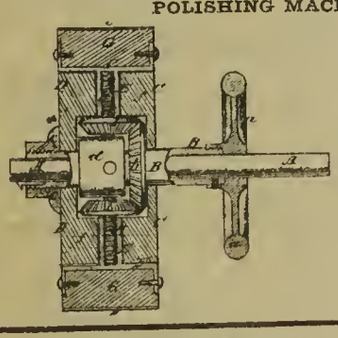
109,608. G. E. GARRETSON ELASTIC RUNNING GEAR FOR CARRIAGES



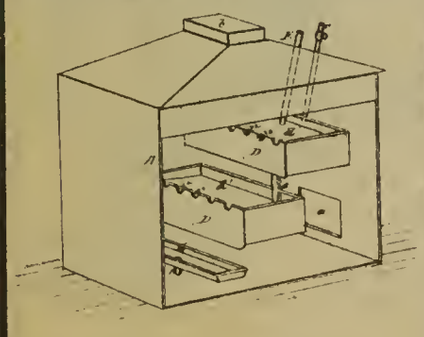
109,609. E. GEMBERLING GATE.



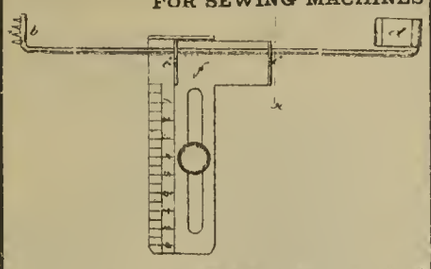
109,610. J. GOODEN POLISHING MACHINE.



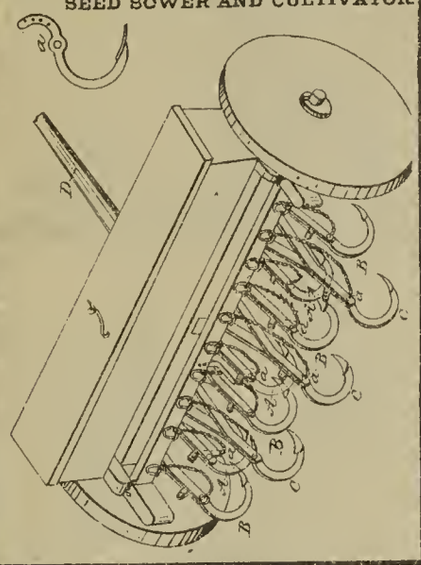
109,611 J. P. GREELEY APPARATUS FOR AGING WHISKY AND OTHER SPIRITS



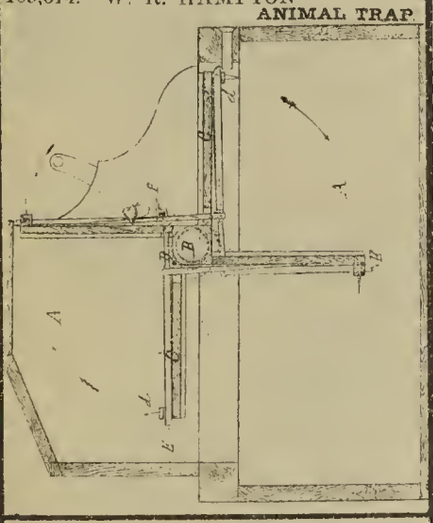
109,612. F. T. GRIMES ATTACHMENT FOR SEWING MACHINES



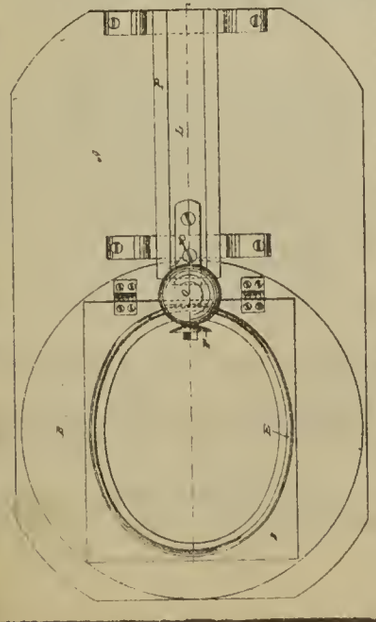
109,613. H. L. HALL COMBINED SEED SOWER AND CULTIVATOR.



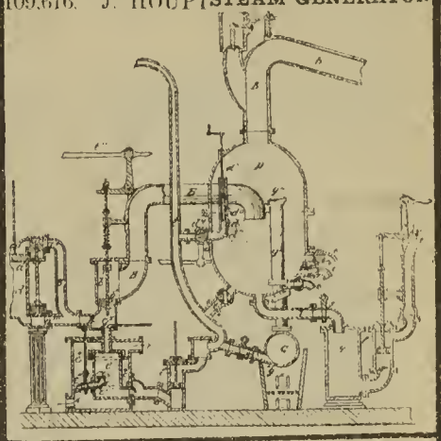
109,614. W. R. HAMPTON ANIMAL TRAP.



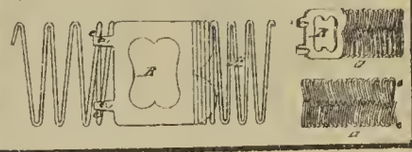
109,615. J. HAWORTH PHOTOGRAPHIC PRINT CUTTER.



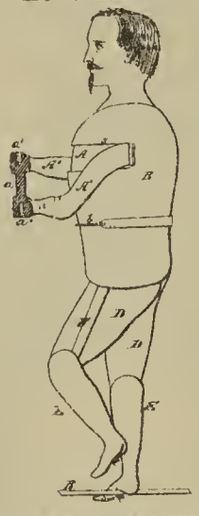
109,616. J. HOUPT STEAM GENERATOR



109,617. H. A. HOUSE GARTER

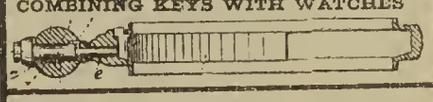


109,618. H. A. HOUSE. AUTOMATON ROPE WALKER.



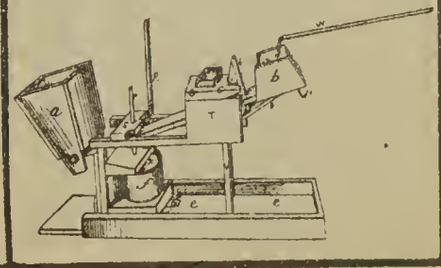
109,619. H. A. HOUSE. ADDING AND SUBTRACTING REGISTER

109,620. A. HUMBERT COMBINING KEYS WITH WATCHES

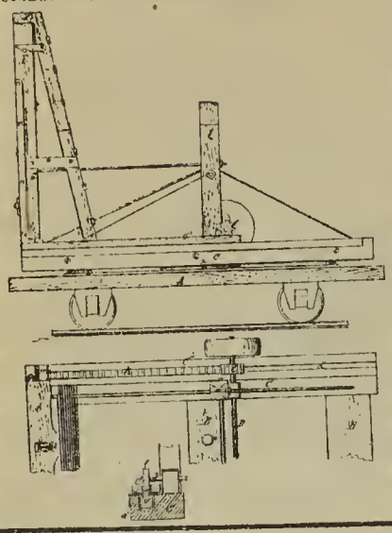


109,621. C. B. HUTCHINS. MANUFACTURE OF PAPER

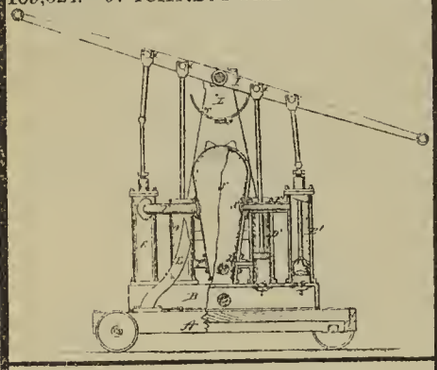
109,622. T. H. HUTCHINSON WATER ELEVATOR.



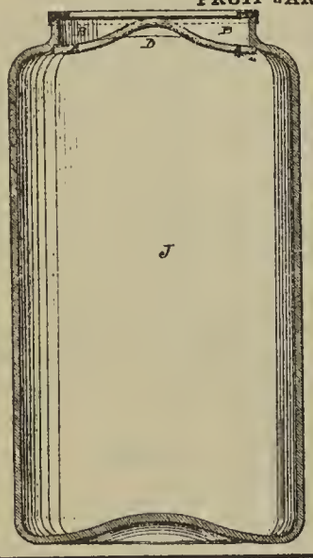
109,623. J. HAY PILE DRIVER.



109,624. J. ICARD. PUMP.

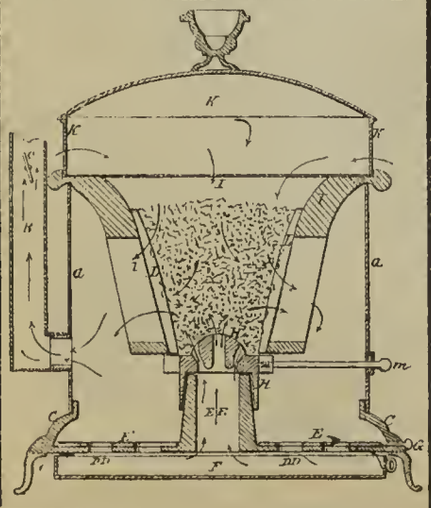


109,625. C. G. AND W. L. IMLAY FRUIT JAR.

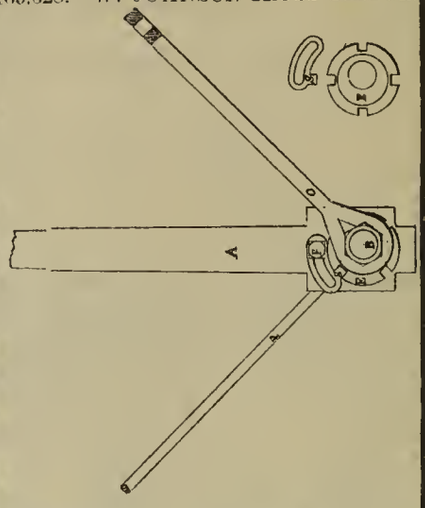


109,626. E. INGRAHAM. EMBELLISHMENT OF GLASS

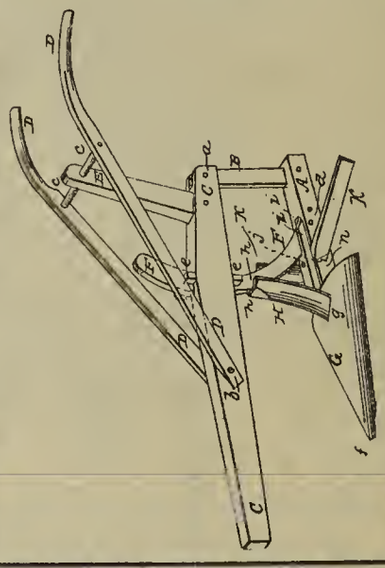
109,627 G. B. ISHAM HEATING STOVE.



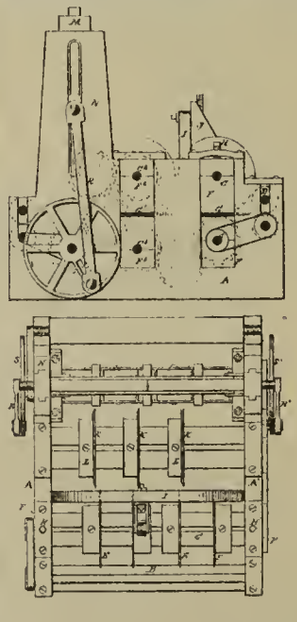
109,628. W. JOHNSON TRUSS BRIDGE.



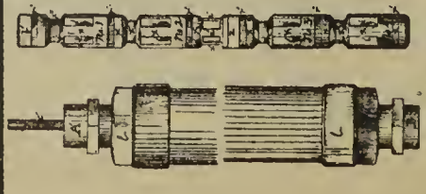
109,629. T. F. JONES. CULTIVATOR PLOW



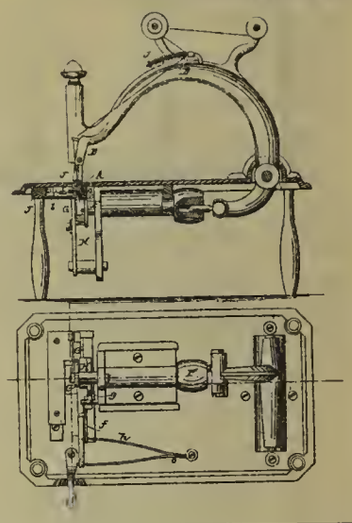
109,630. J. M. KEEN. MACHINE FOR CUTTING, SCORING, AND CORNERING PAPER FOR BOXES.



109,631. H. K. KENYON PUMP.

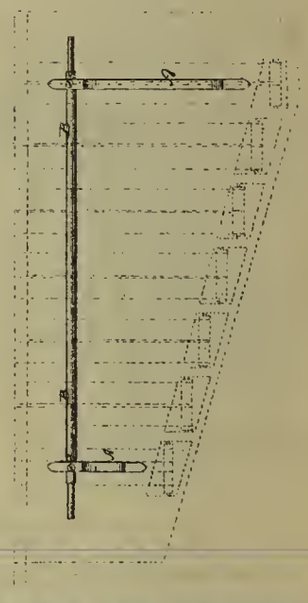


109,632. I. W. LAMB SEWING MACHINE

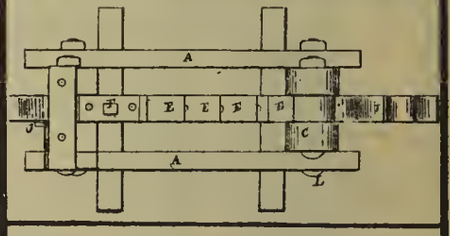


109,633. A. LAWE. ELECTROPLATING IRON AND STEEL WITH SILVER.

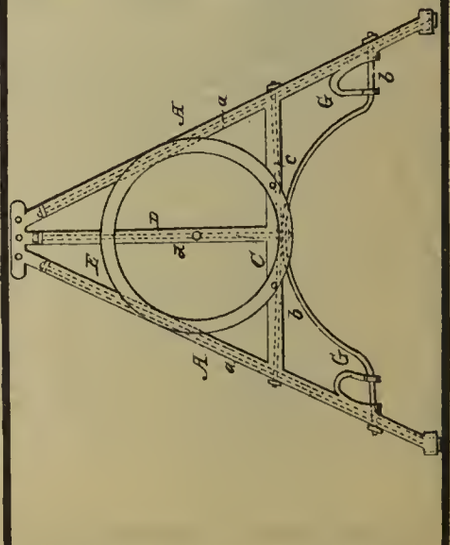
109,634. W. A. LAWTON FEED MECHANISM FOR CARDING MACHINES.



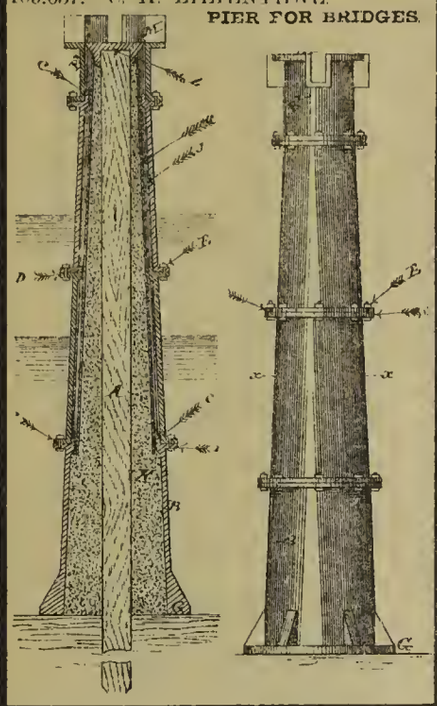
109,635 S. C. LEONARD LIFTING JACK.



109,636. J. LE ROY FIFTH WHEEL

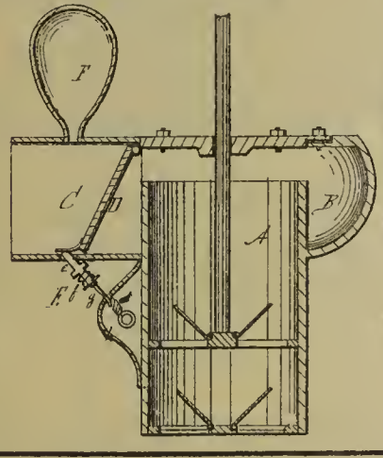


109,637. C. H. LILIENTHAL. PIER FOR BRIDGES.

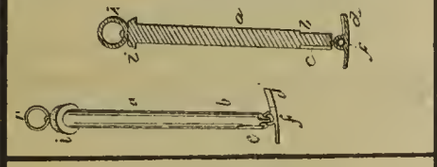


109,638. A. AND E. LISTER AND C. J. EAMES. DEODORIZING THE AIR AND GASES IN FAT RENDERING, BONE BOILING, &c.

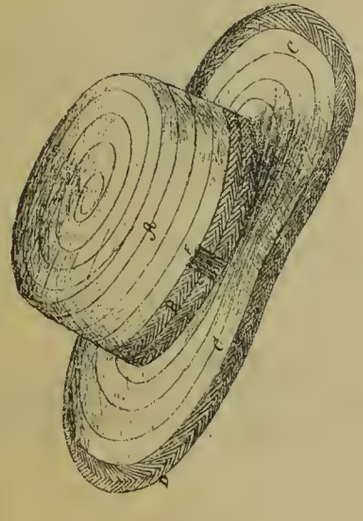
109,639. C. MARKLEY PUMP.



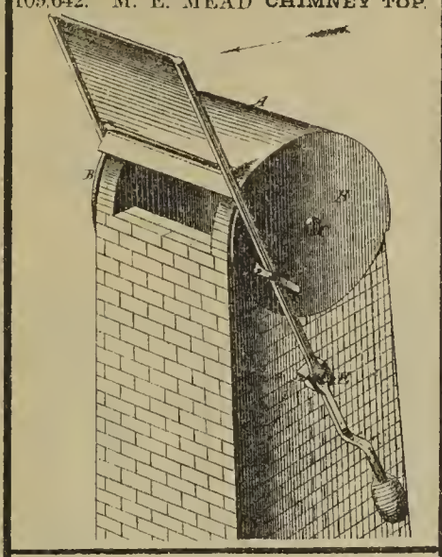
109,640. F. G. McCLELLAND BOLT.



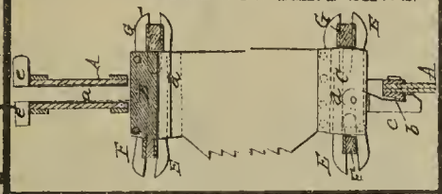
109,641. J. W. McGILL. HAT.



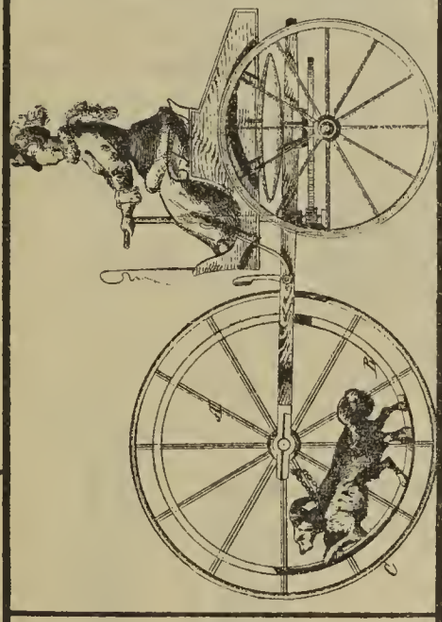
109,642. M. E. MEAD CHIMNEY TOP.



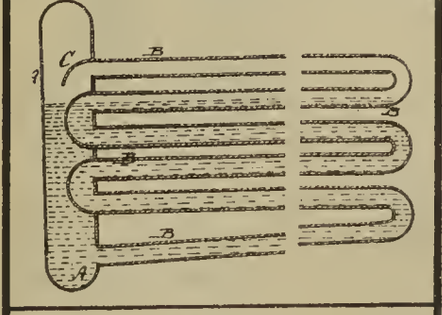
109,643. O. C. MEIGS. GAUGE FOR GANG SAWS.



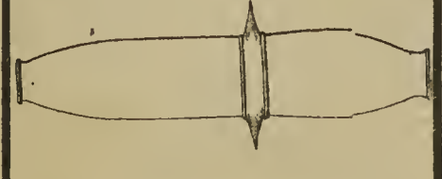
109,644. F. H. C. MEY VEHICLE.



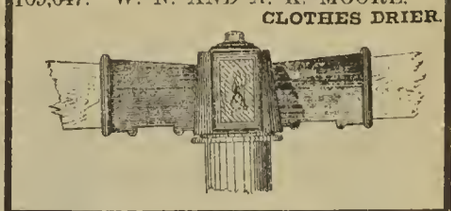
109,645. J. A. MILLER. STEAM GENERATOR.



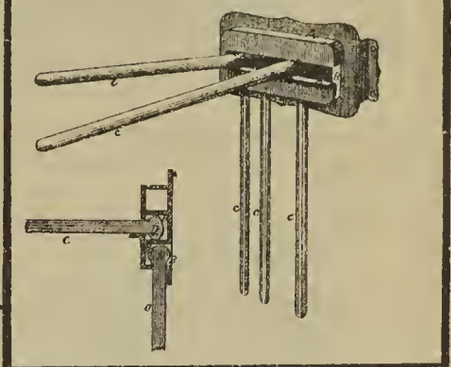
109,646. C. A. MOORE. MANUFACTURE OF GLASS ARTICLES.



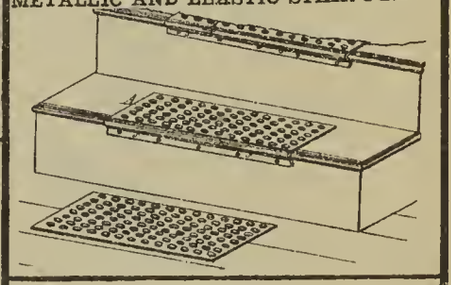
109,647. W. N. AND A. K. MOORE. CLOTHES DRIER.



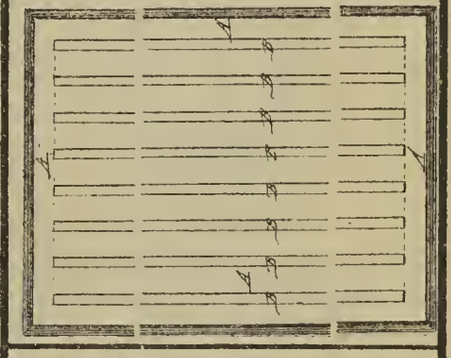
109,648. F. MYERS. TOWEL RACK.



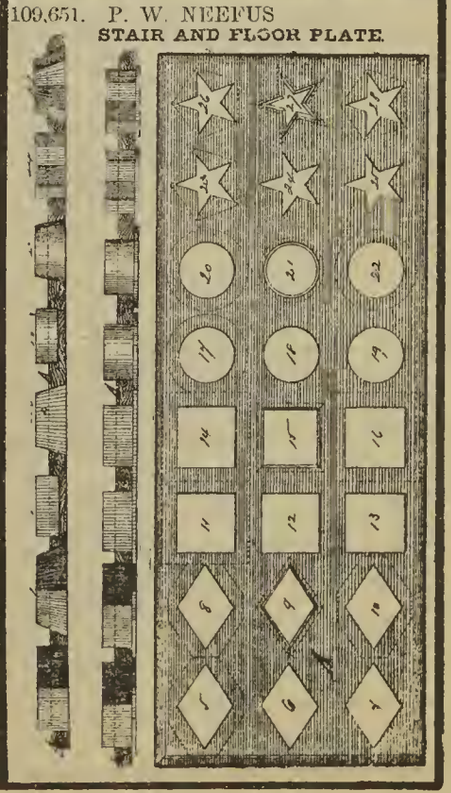
109,649. P. W. NEEFUS. METALLIC AND ELASTIC STAIR PLATE.



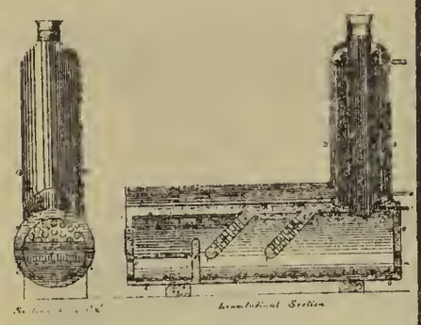
109,650. P. W. NEEFUS. METALLIC AND ELASTIC DOOR MAT.



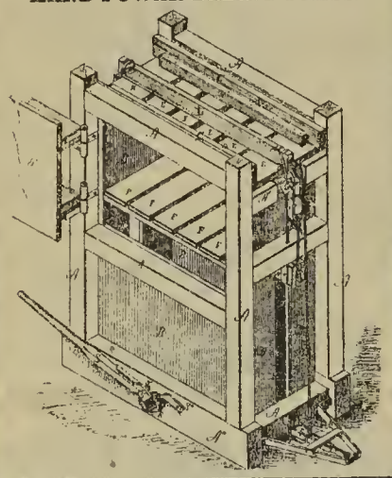
109,651. P. W. NEEFUS STAIR AND FLOOR PLATE.



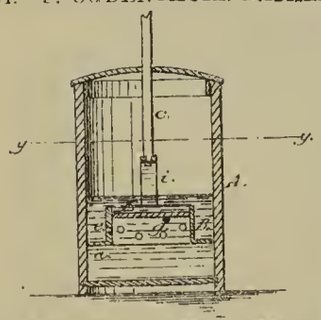
109,652. E. NEUMANN
STEAM GENERATOR.



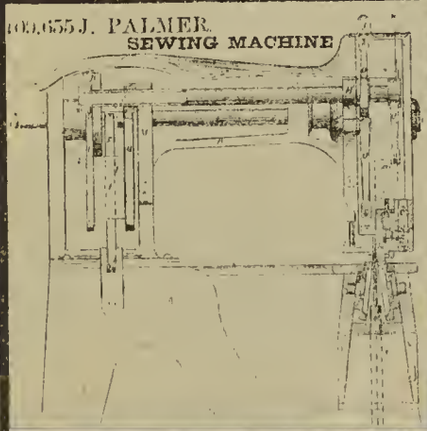
109,653. W. R. NEWMAN
HAND POWER BALING PRESS.



109,654. F. OGDEN CHURN DASHER.

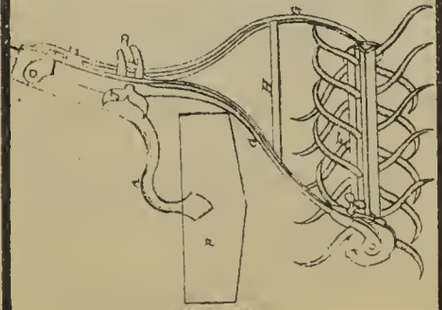


109,655 J. PALMER.
SEWING MACHINE

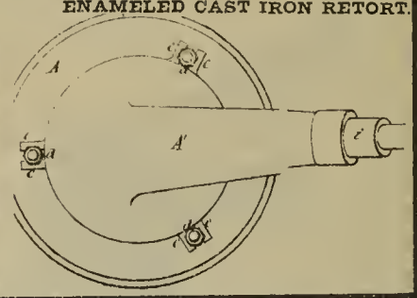


109,656. C. F. PANKNIN COMPOUND FOR PATING HIDES AND SKINS.

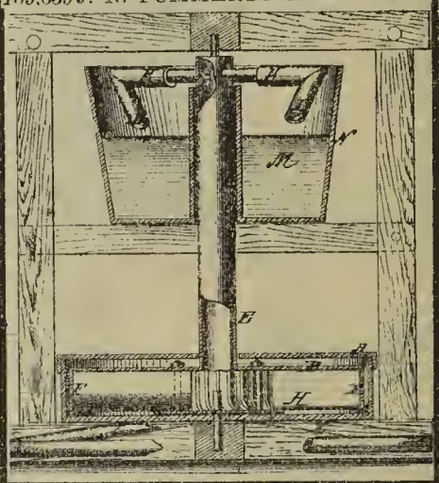
109,657. L. AND F. PERROT AND C. H. BATES COMBINED GARDEN TOOL



109,658. T. D. AND T. S. PHILLIPS
ENAMELED CAST IRON RETORT.

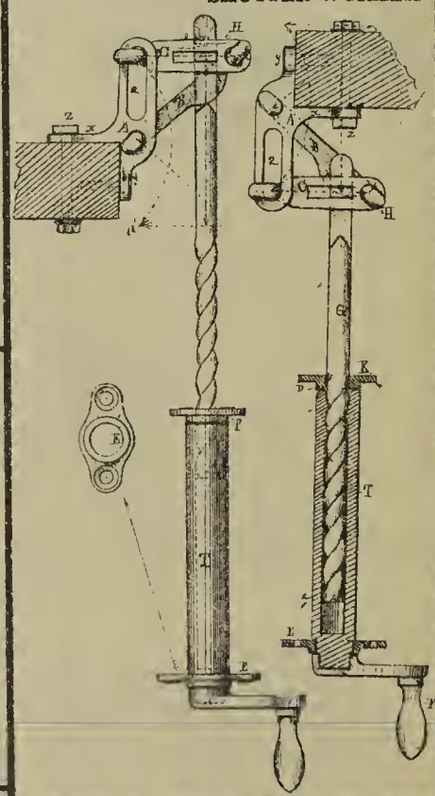


109,659 J. N. POMMERT STEAM WHEEL

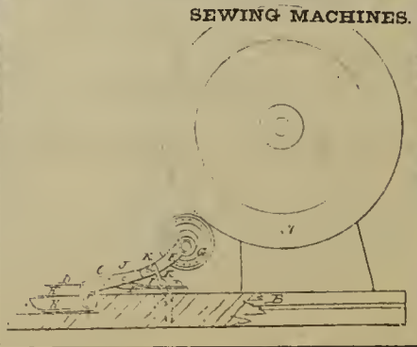


109,660. W. PORTER
MATCH FOR CIGAR LIGHTERS

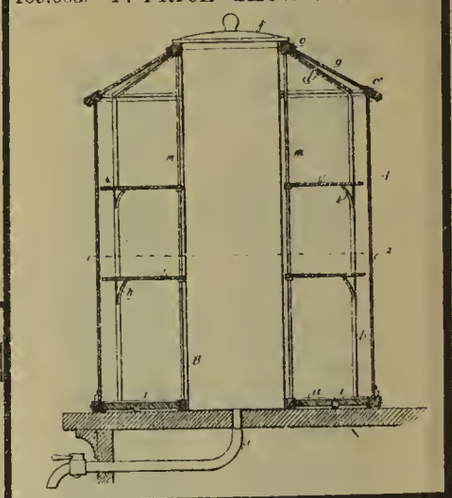
109,661. C. A. POTTER.
SHUTTER WORKER.



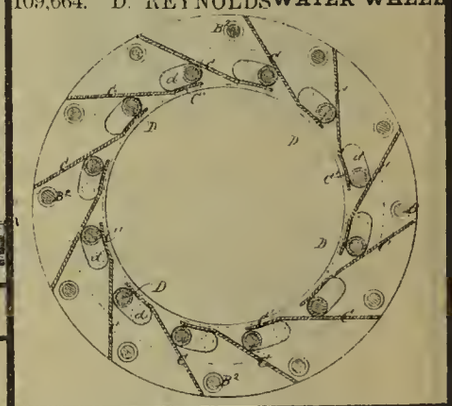
109,662 W. E. PRALL AND A. B. RAND
CLOTH CUTTING ATTACHMENT FOR SEWING MACHINES.



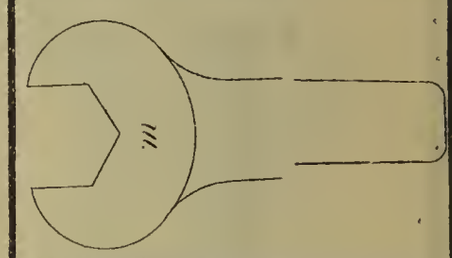
109,663. P. PRICE SHOW CASE.



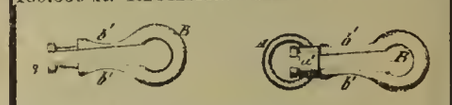
109,664. D. REYNOLDS WATER WHEEL



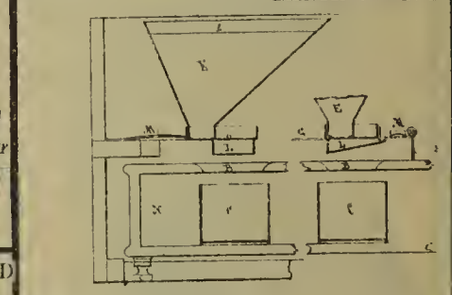
109,665. J. RICHARDS
MANUFACTURE OF WRENCHES.



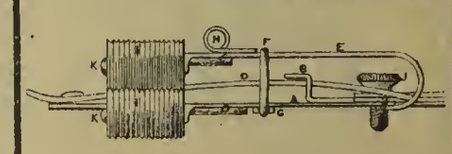
109,666 R. RICHARDS SAFETY SWIVEL



109,667. G. W. ROBERTS.
EARTH CLOSET

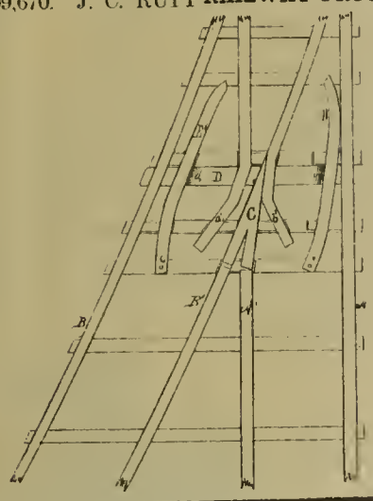


109,668 S. ROGERS AND E. K. SPERRY
CLOTH GUIDING ATTACHMENT FOR SEWING MACHINES.

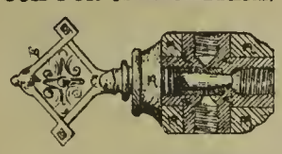


109,669. J. L. ROWLAND
MANUFACTURE OF ARTIFICIAL STONE.

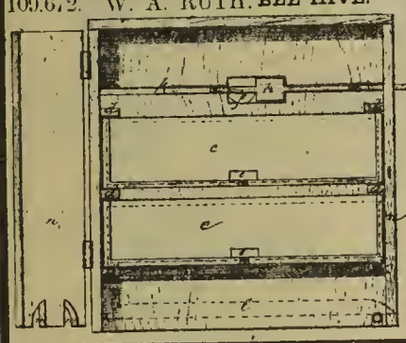
109,670. J. C. RUPP RAILWAY FROG



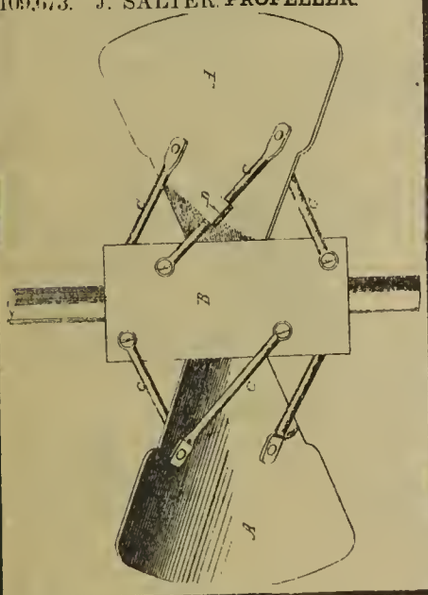
109,671. S. RUST. JR.
COCK FOR CARBURETERS, &c.



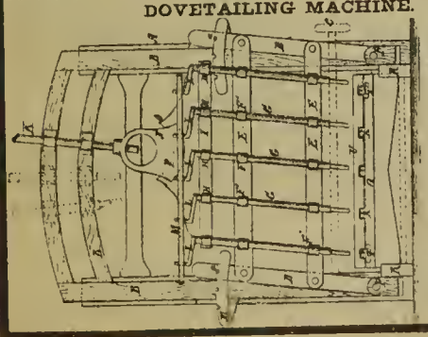
109,672. W. A. RUTH. BEE HIVE.



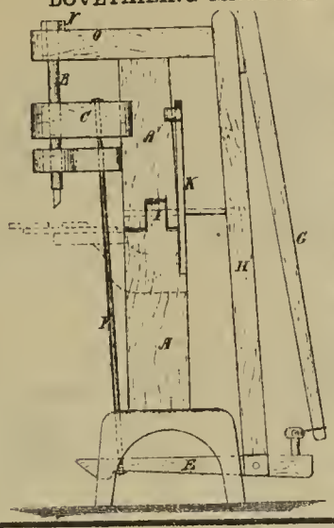
109,673. J. SALTER. PROPELLER.



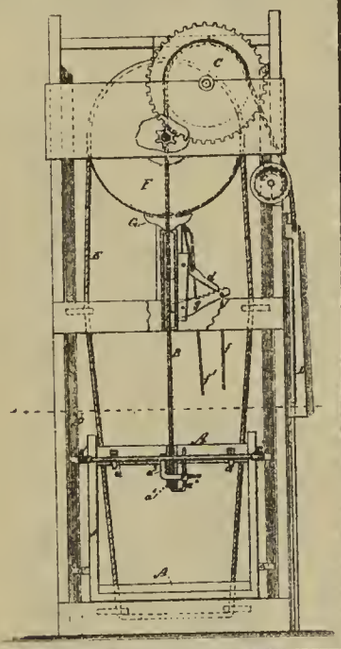
109,674. J. B. SCHMID
DOVETAILING MACHINE.



109,675. J. B. SCHMID
DOVETAILING MACHINE.

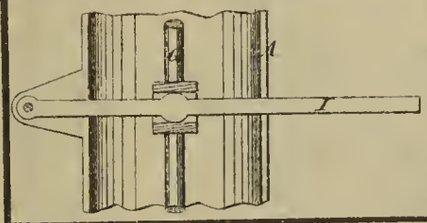


109,676. G. SCOTT. ELEVATOR

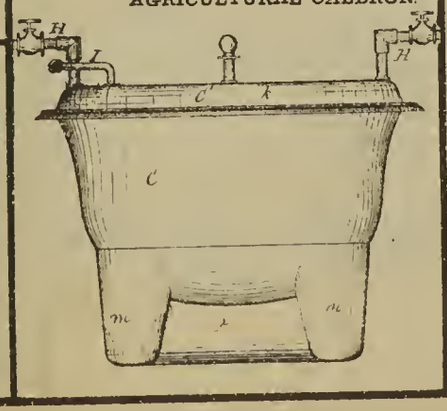


109,677. A. SEITZ.
CONFECTIONERY FOR DRUGGISTS.

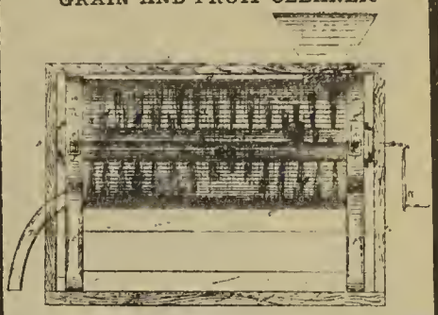
109,678. W. SHEARER. PUMP.



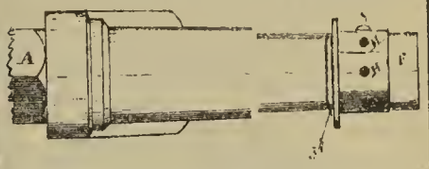
109,679. E. E. SILL AND
A. H. BENNETT.
AGRICULTURAL CALDRON.



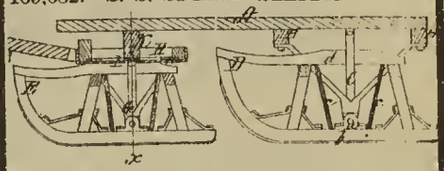
109,680. S. A. SLOCOMB
GRAIN AND FRUIT CLEANER.



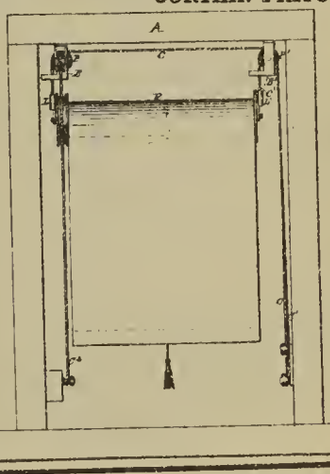
109,681. A. E. SMITH
AXLE FOR CARRIAGES



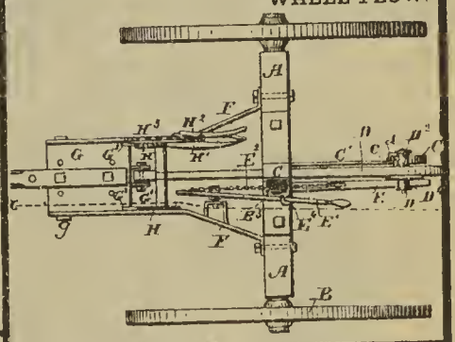
109,682. S. S. SPEAR. SLEIGH.



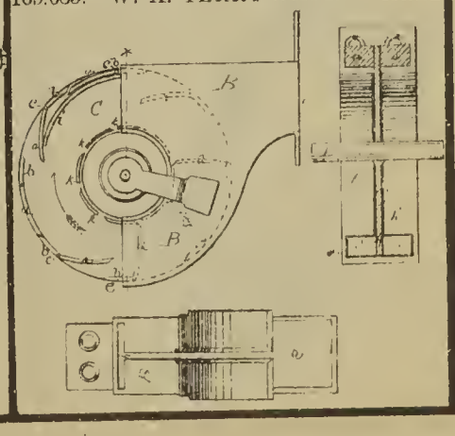
109,683. T. STEWART
CURTAIN FIXTURE.



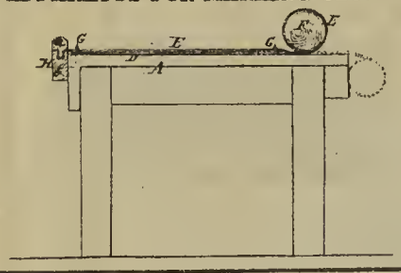
109,684. J. E. SWALLOW
WHEEL PLOW.



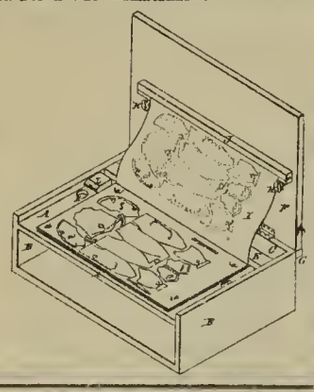
109,685. W. A. TERRY WATER WHEEL.



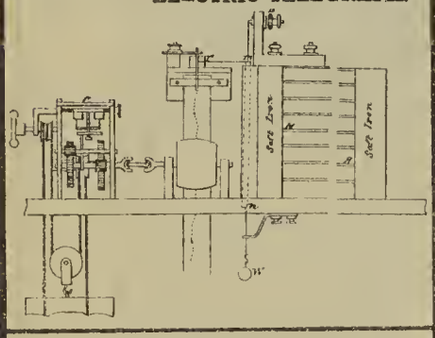
109,686. A. THOMAS.
APPARATUS FOR MARKING CLOTH.



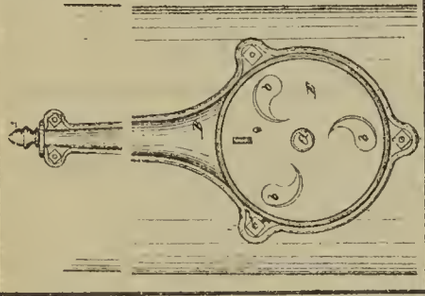
109,687. A. THOMAS
APPARATUS FOR MARKING CLOTH.



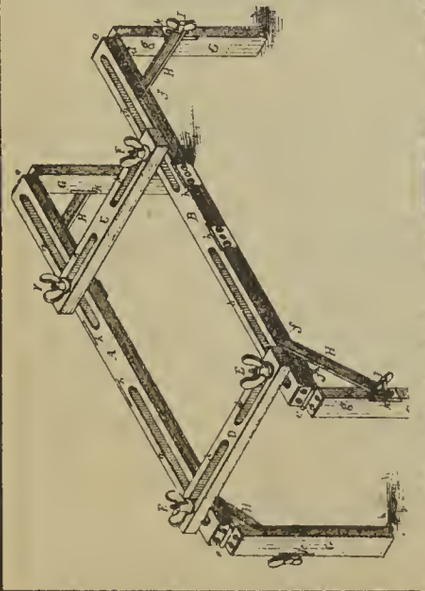
109,688. W. THOMSON
RECORDING INSTRUMENT FOR THE ELECTRIC TELEGRAPH.



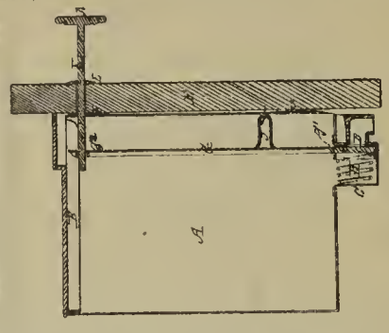
109,689. J. S. TOAN.
AUTOMATIC STOVE REGISTER.



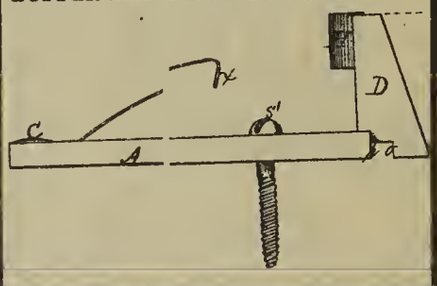
109,690. J. TONNER.
STRETCHING FRAME.



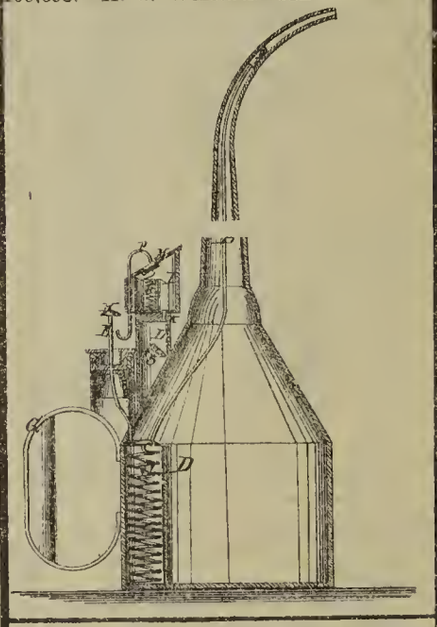
109,691. A. TUMLER SIRUP CAN.



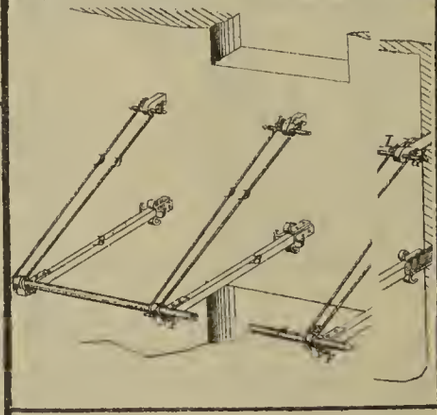
109,692. A. A. VEER
BUFFER AND CATCH FOR DOORS



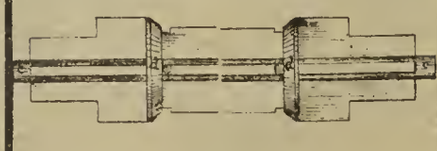
109,693. H. C. WARFEL OIL CAN.



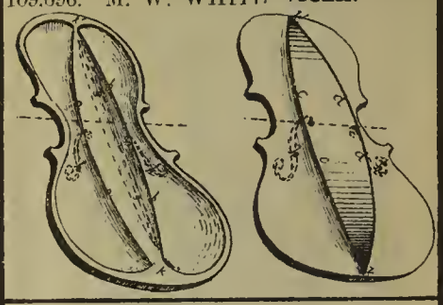
109,694. C. WERNER AWNING FRAME.



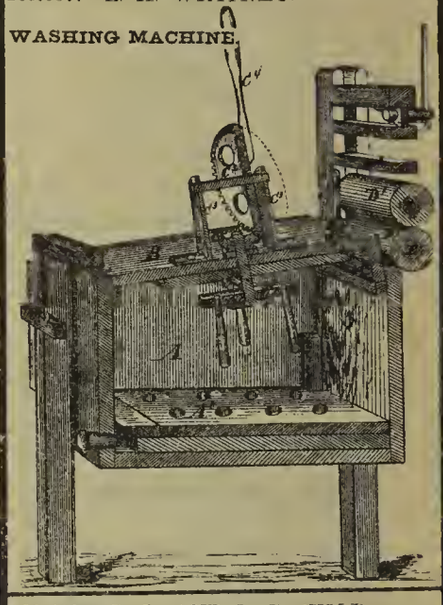
109,695. G. WESTINGHOUSE, JR.
ATMOSPHERIC CAR BRAKE PIPES.



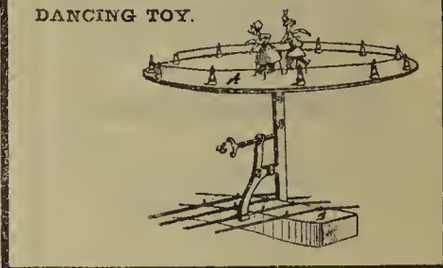
109,696. M. W. WHITE VIOLIN



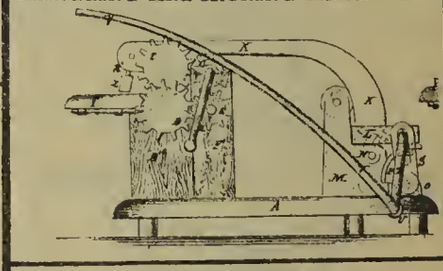
109,697. L. H. WHITNEY.
WASHING MACHINE.



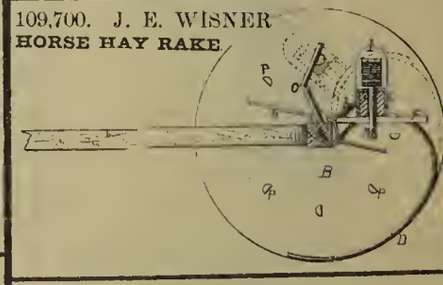
109,698. G. L. AND L. P. WILD.
DANCING TOY.



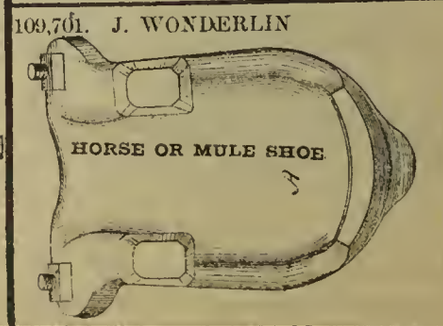
109,699. S. WILLIAMS
MANGLING AND IRONING MACHINE.



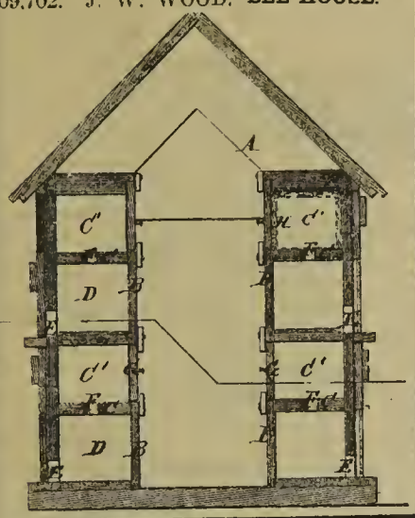
109,700. J. E. WISNER
HORSE HAY RAKE.



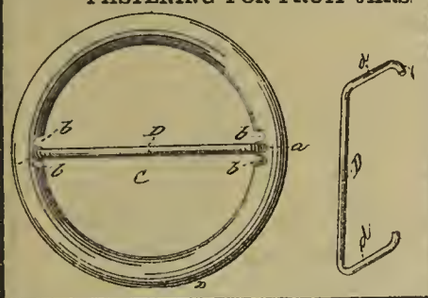
109,701. J. WONDERLIN
HORSE OR MULE SHOE.



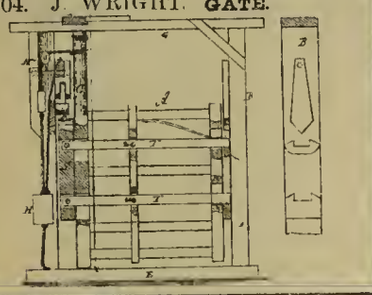
109.702. J. W. WOOD. **BEE HOUSE.**



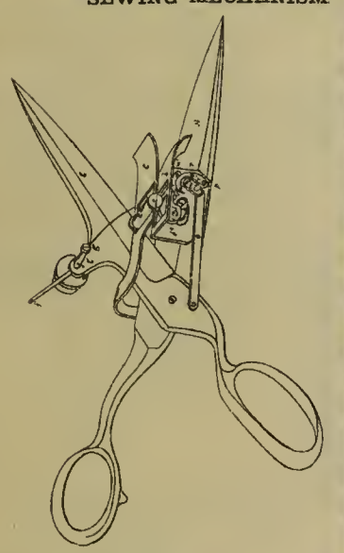
109.703. T. F. WOODWARD
FASTENING FOR FRUIT JARS.



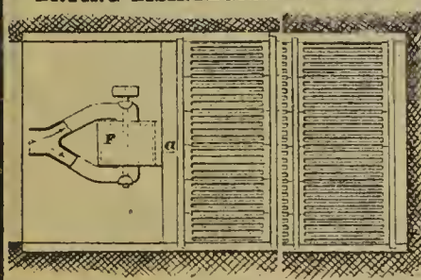
109.704. J. WRIGHT. **GATE.**



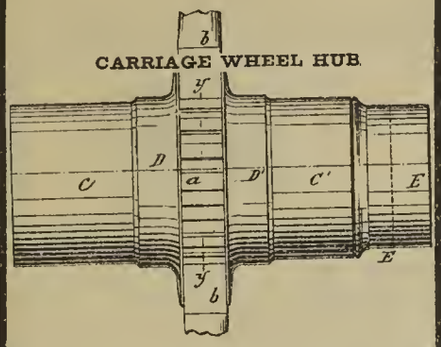
109.705. J. L. YOUNG
SEWING MECHANISM.



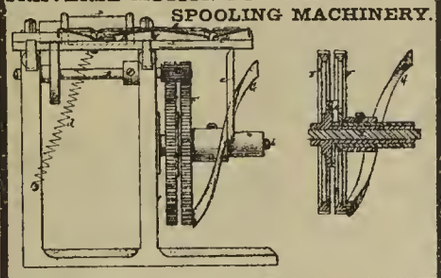
109.706. W. ADAMSON
DRYING DISINTEGRATED FIBERS.



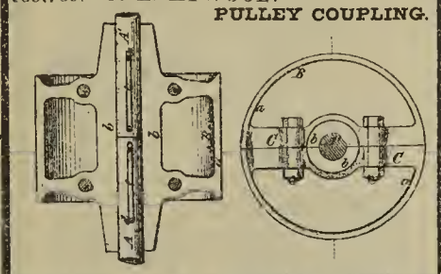
109.707. S. ATHA
CARRIAGE WHEEL HUB.



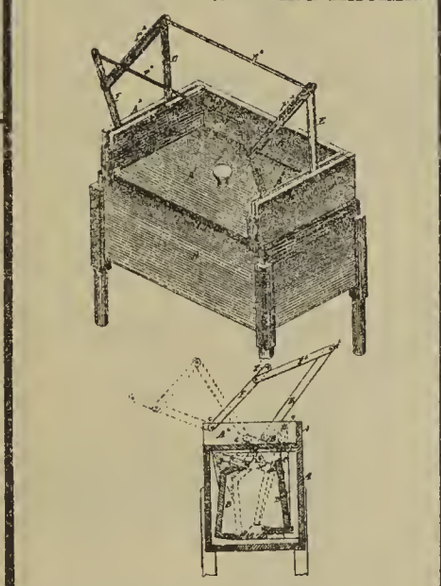
109.708. J. E. ATWOOD.
TRAVERSE MOTION FOR WINDING AND SPOOLING MACHINERY.



109.709. J. E. ATWOOD.
PULLEY COUPLING.

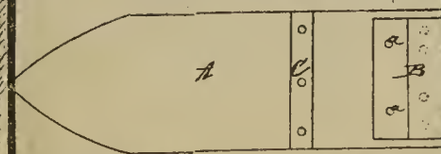


109.710. B. C. BAILEY
WASHING MACHINE.

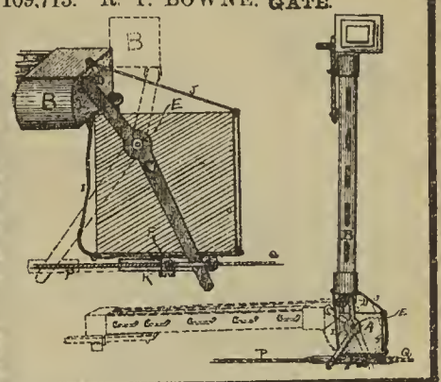


109.711. H. BALL. **GRATE BAR.**

109.712. J. H. BEIDLER.
IRONING BOARD.

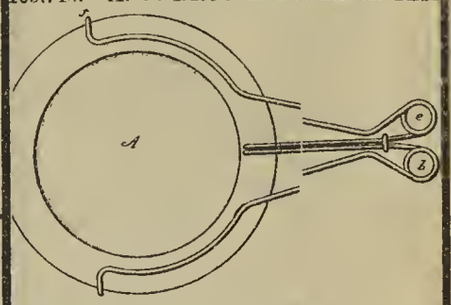


109.713. R. T. BOWNE. **GATE.**

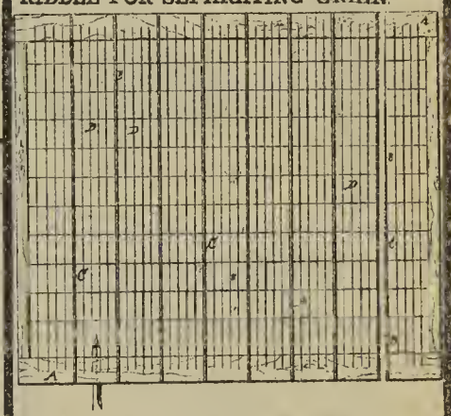


109.714. W. B. BRITTINGHAM
TANNING COMPOSITION.

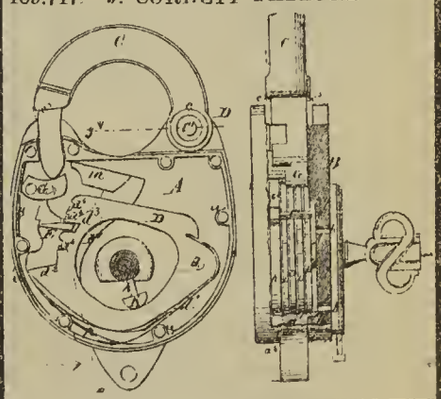
109.715. H. P. BROOKS. **PLATE LIFTER.**



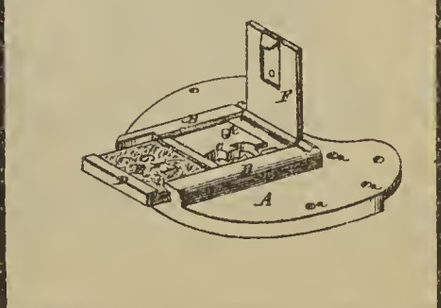
109.716. M. M. COOPER AND
J. W. DONALDSON
RIDDLE FOR SEPARATING GRAIN.



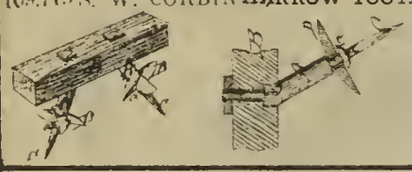
109.717. J. CORBETT **PADLOCK.**



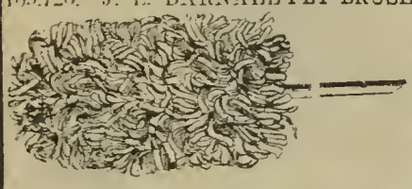
109.718. J. CORBETT AND
F. W. BROOKS **SEAL LOCK.**



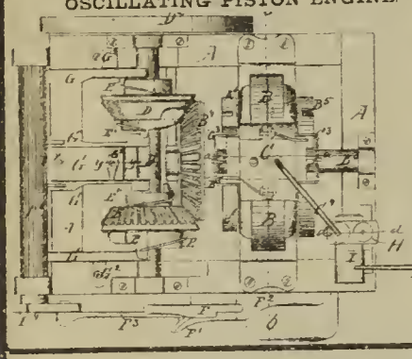
109,719 S. W. CORBIN HARROW TOOTH.



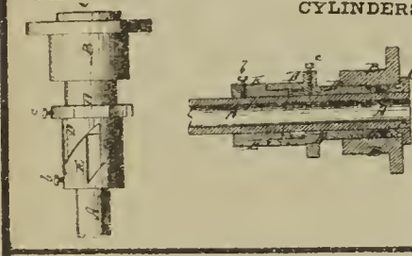
109,720. J. E. DARNALL FLY BRUSH.



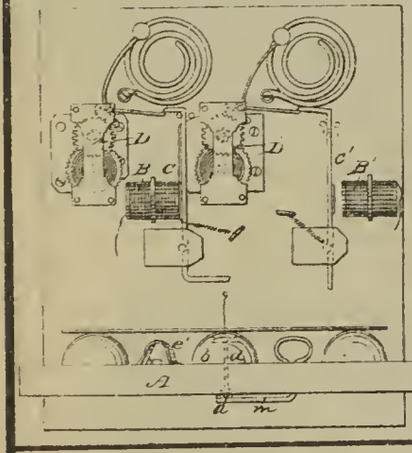
109,721. J. B. AND S. M. DAVIS OSCILLATING PISTON ENGINE.



109,722. S. DEACON AND J. RUSSELL PACKING BOX FOR ROTARY STEAM CYLINDERS.

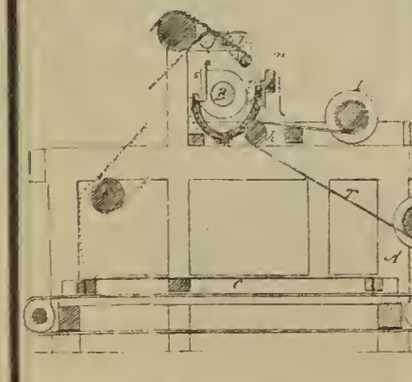


109,723. J. M. DILLE. ELECTRO MAGNETIC BURGLAR ALARM.

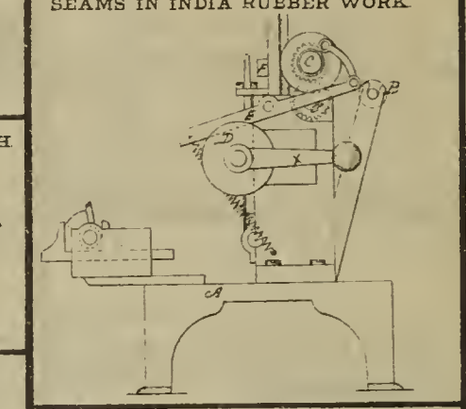


109,724. L. DUEMPELMAN CONCRETE FOR PAVING AND ROOFING.

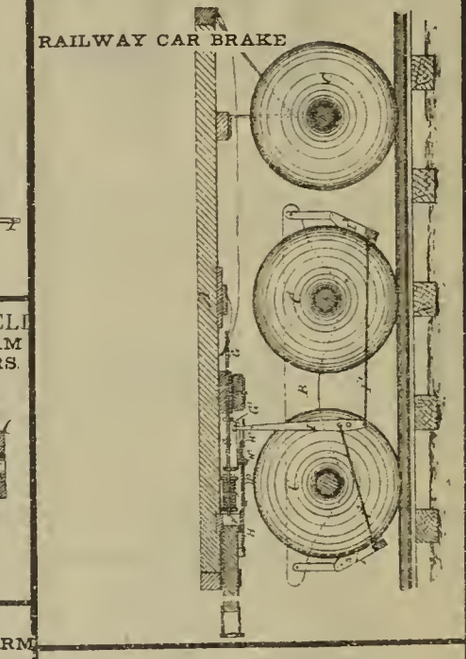
109,725. C. A. ENSIGN MACHINE FOR CUTTING SHEETS OF INDIA RUBBER.



109,726. C. A. ENSIGN MACHINE FOR JOINING IRREGULAR SEAMS IN INDIA RUBBER WORK.



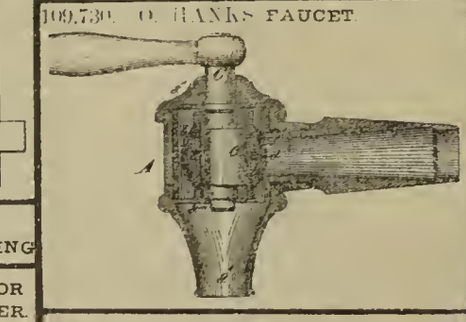
109,727. F. M. FINNELL RAILWAY CAR BRAKE.



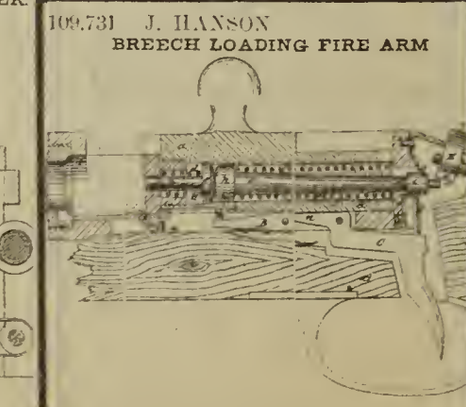
109,728 SUSPENDED.

109,729. J. W. FISHER SHOE.

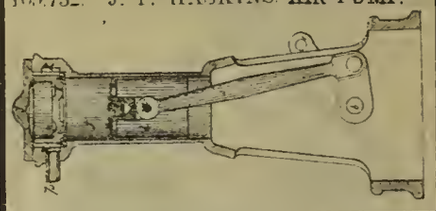
109,730. O. HANKS FAUCET.



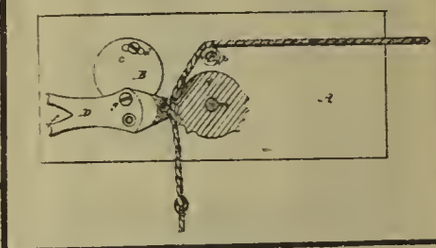
109,731 J. HANSON BREECH LOADING FIRE ARM.



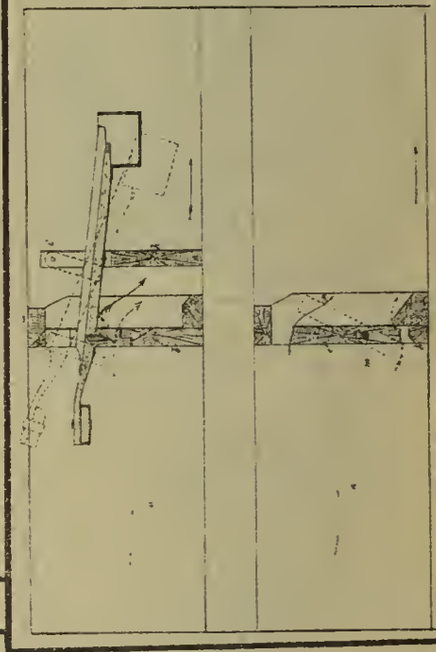
109,732. J. F. HASKINS. AIR PUMP.



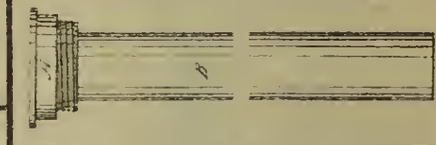
109,733. B. B. HERRICK CLOTHES LINE FASTENER.



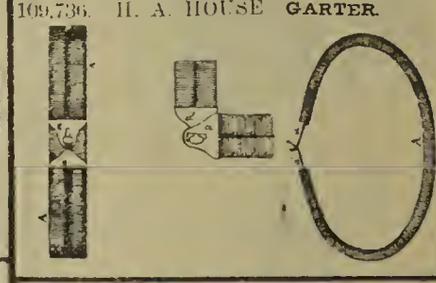
109,734. N. HINCKLEY FLOOD GATE.



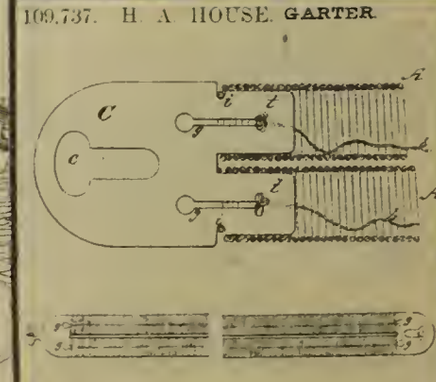
109,735. G. M. HOPKINS AND J. A. STRAIGHT SAFETY TUBE FOR LAMPS.



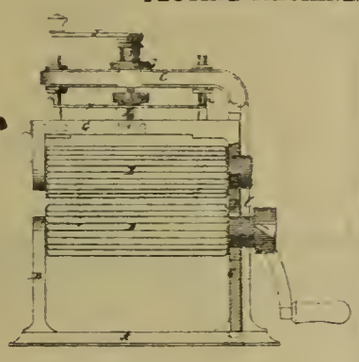
109,736. H. A. HOUSE GARTER.



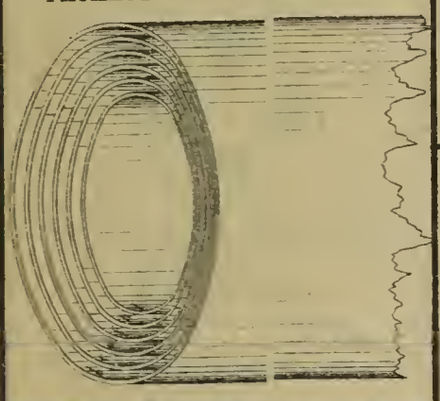
109,737. H. A. HOUSE. GARTER.



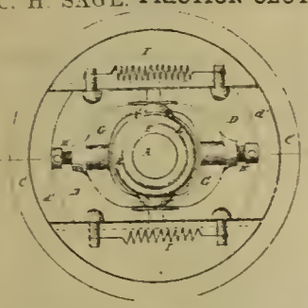
109,738. A. Y. HUBBELL. FLUTING MACHINE.



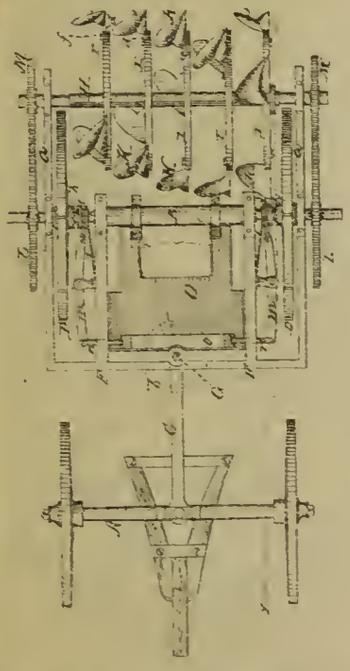
109,739. G. M. HUNTLY. PACKAGE FOR LARD, BUTTER, &c



109,740 W. W. JEROME, S. B. ALGER AND C. H. SAGE. FRICTION CLUTCH



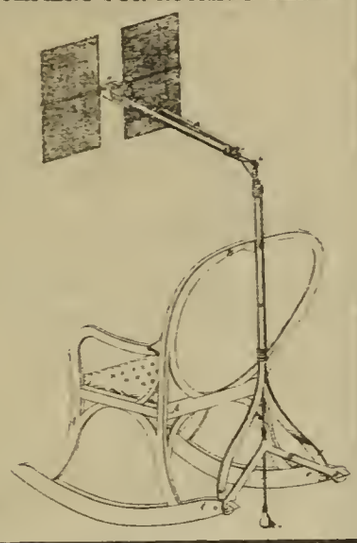
109,741. N. T. JUDD ROTARY PLOW.



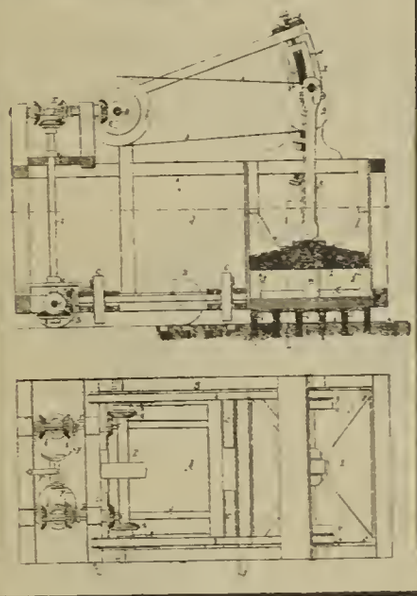
109,742. M. L. KEEN PAPER STOCK.

109,743. S. W. KIRK SEPARATING LEAD FROM THE PRECIOUS METALS.

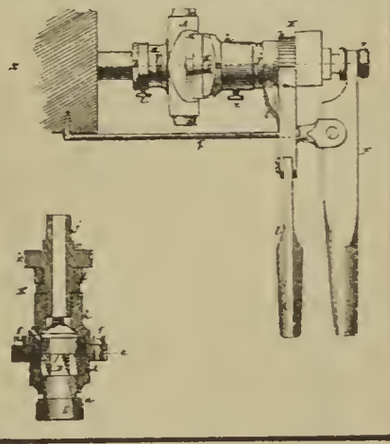
109,744 R. KNAFFL AND T. M. SCHLEIER FAN ATTACHMENT FOR ROCKING CHAIRS



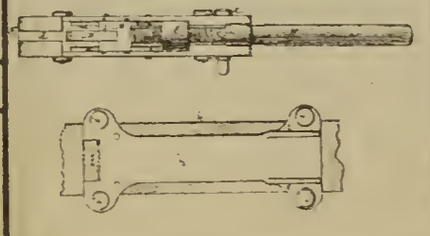
109,745. A. L. LANSING. RAMMING MACHINE FOR WOOD AND OTHER PAVEMENTS.



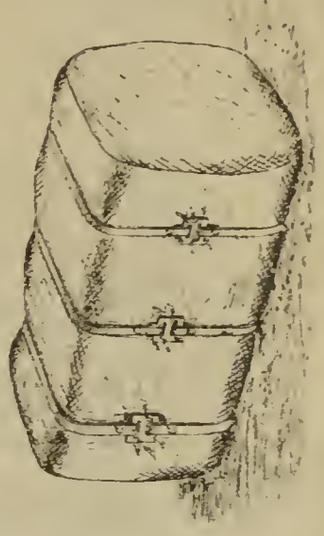
109,746. J. W. MAHLON. DEVICE FOR CUTTING SCREW THREADS AND FOR DRILLING METALS



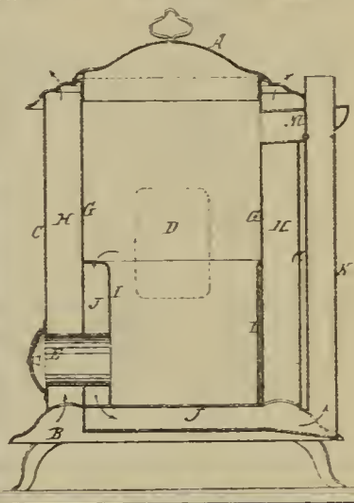
109,747. J. W. MAHLON DEVICE FOR CLAMPING OR CUTTING OFF TUBES AND RODS.



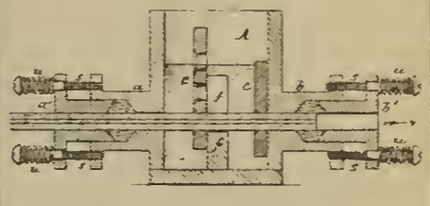
109,748. J. F. MILLIGAN. COTTON BALE TIE



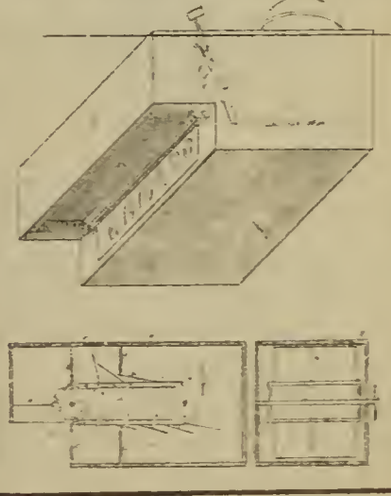
109,749. L. A. MORSE HEATING STOVE



109,750. T. H. MULLER AND H. C. BENSON MACHINE FOR VARNISHING PENCILS.

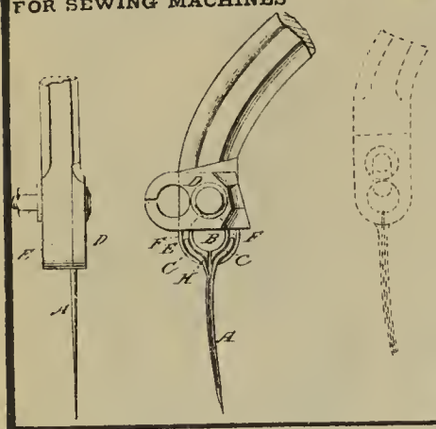


109,751. L. NELKE STATION INDICATOR.

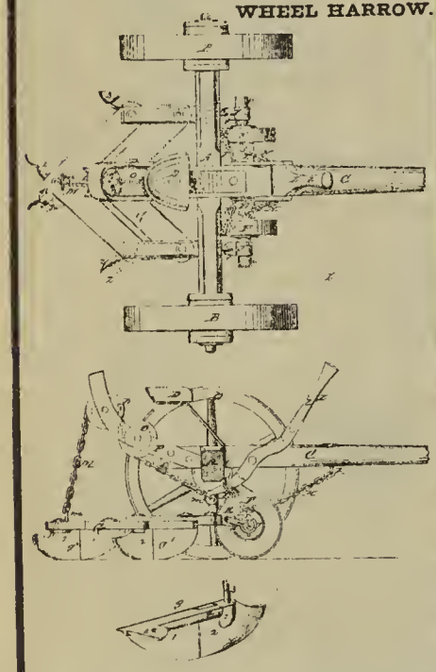


109,752 C. M. NES MANUFACTURE OF IRON AND STEEL

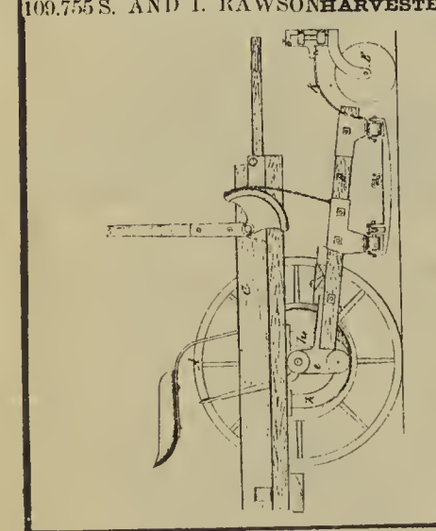
109,753. C. H. PALMER.
NEEDLES AND THEIR CARRYING ARMS FOR SEWING MACHINES



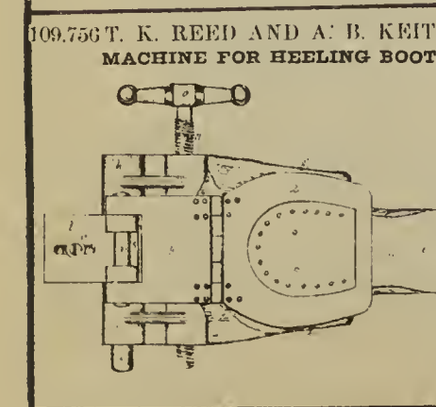
109,754. E. R. POWELL.
WHEEL HARROW.



109,755 S. AND I. RAWSON HARVESTER

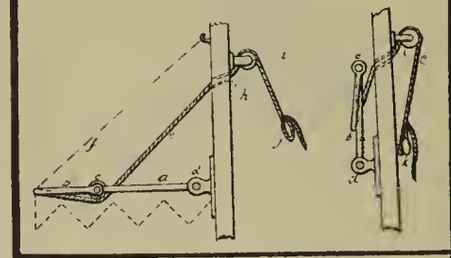


109,756 T. K. REED AND A. B. KEITH
MACHINE FOR HEELING BOOTS

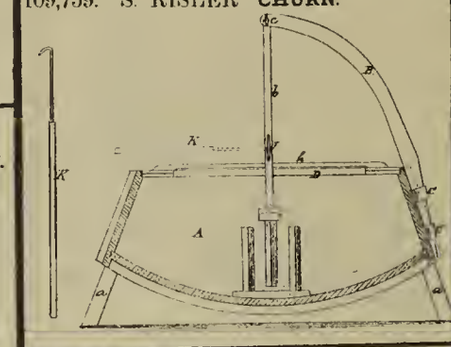


109,757. T. C. RICE
MANUFACTURE OF PAINT.

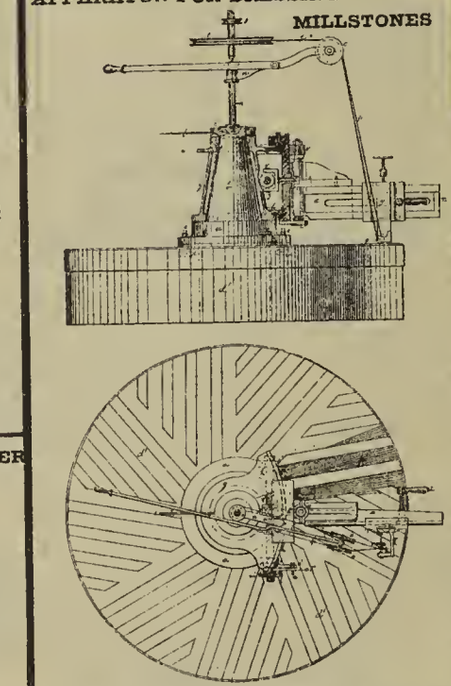
109,758. W. S. RICE. WINDOW SHADE.



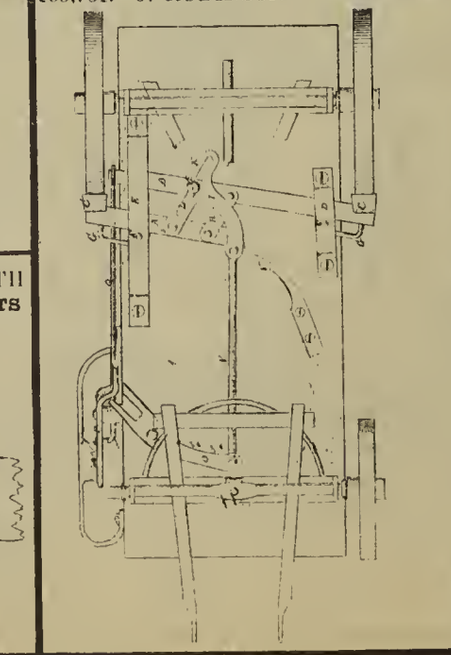
109,759. S. RISLER CHURN.



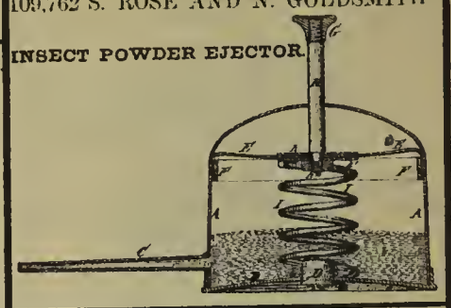
109,760 H. ROBINSON AND J. SMITH
APPARATUS FOR DRESSING MILLSTONES



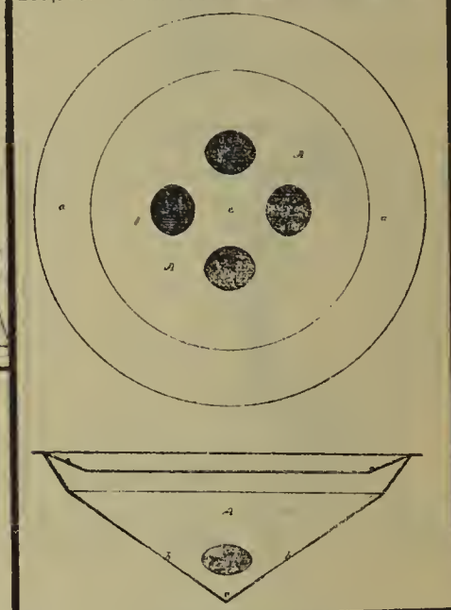
109,761. J. ROBINSON WAGON BRAKE



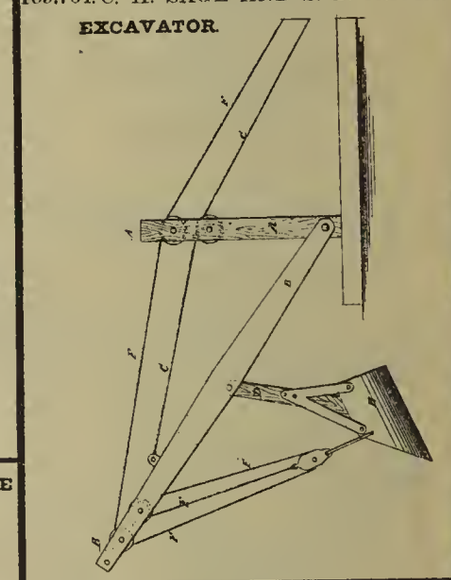
109,762 S. ROSE AND N. GOLDSMITH
INSECT POWDER EJECTOR.



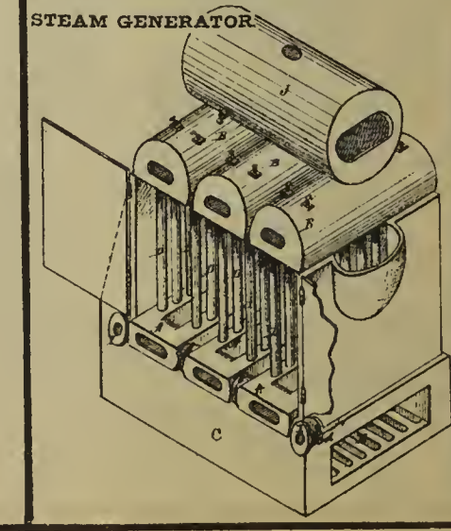
109,763. P. S. RYAN MILK STRAINER.



109,764. C. H. SAGE AND S. B. ALGER
EXCAVATOR.

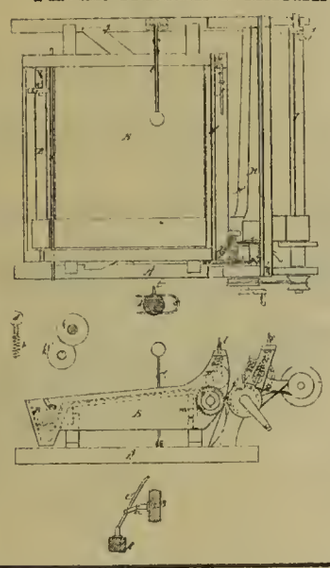


109,765. W. G. SAVAGE.
STEAM GENERATOR.

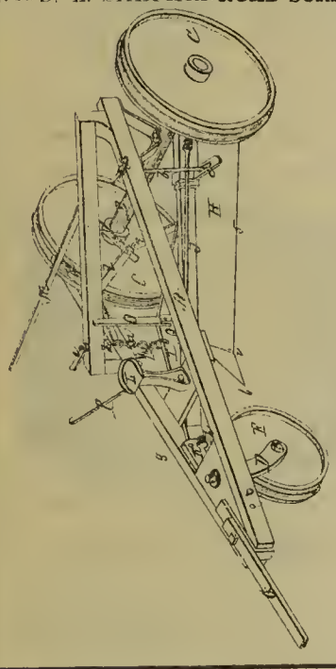


109,766. C. B. SAWYER
MANUFACTURE OF PAPER PULP.

109,767. J. F. SCHUYLER.
PAPER TRIMMING MACHINE.

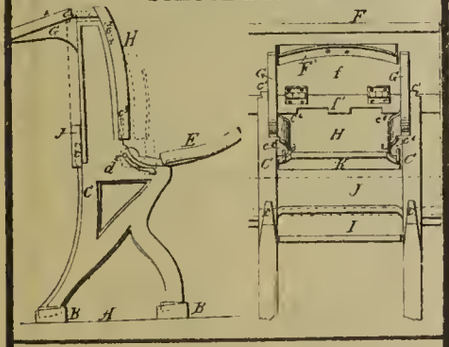


109,768 D. L. SHEPARD ROAD SCRAPER

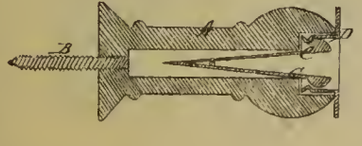


109,769. T. R. SHERRY
FILLING FOR WOOD.

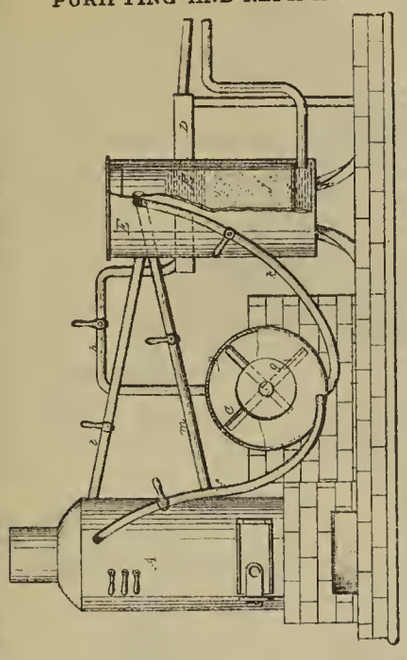
109,770. W. A. SLAYMAKER
SCHOOL DESK AND SEAT.



109,771. O. SLIKER
DOOR HOLDER OR CHECK.

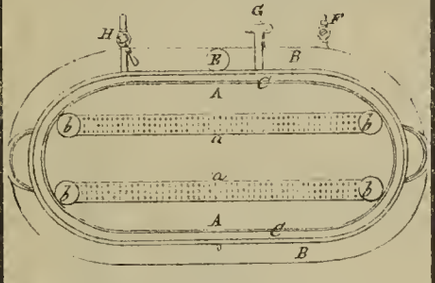


109,772. W. M. SLOANE.
PURIFYING AND REFINING OILS

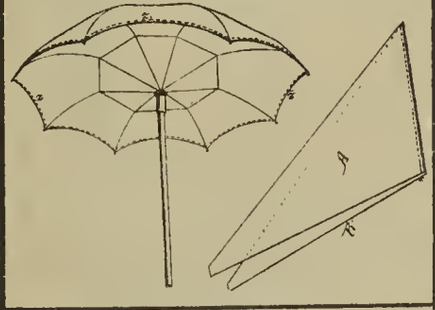


109,773. G. SMITH PERFUMERY.

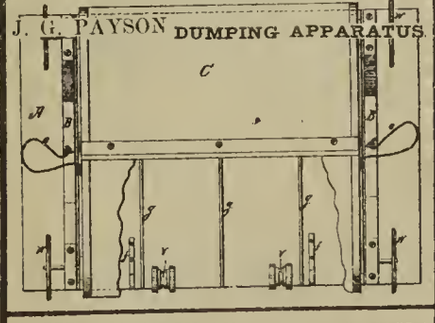
109,774. H. L. SPRAGUE AND
J. N. GUYON WASH BOILER



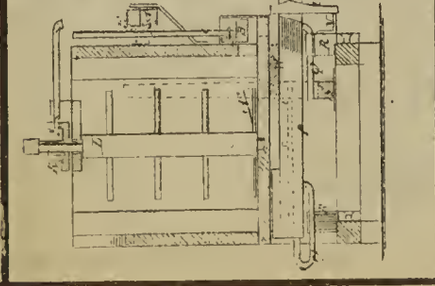
109,775. M. STEPHENS UMBRELLA.



109,776. L. B. STILSON AND
J. G. PAYSON DUMPING APPARATUS.



109,777 S. H. TAYLOR BRICK MACHINE.



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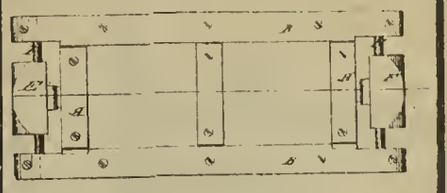
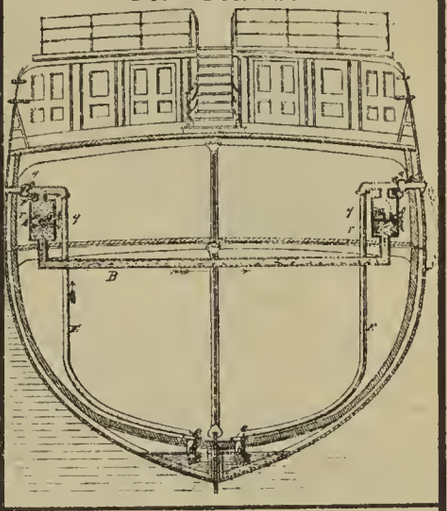
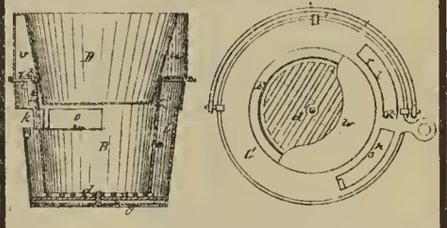


109,779. W. F. J. THIERS.
VENTILATOR, ALARM, AND BILGE PUMP FOR VESSELS.



109,780. C. VAN DE MARK
PORTABLE FURNACE.



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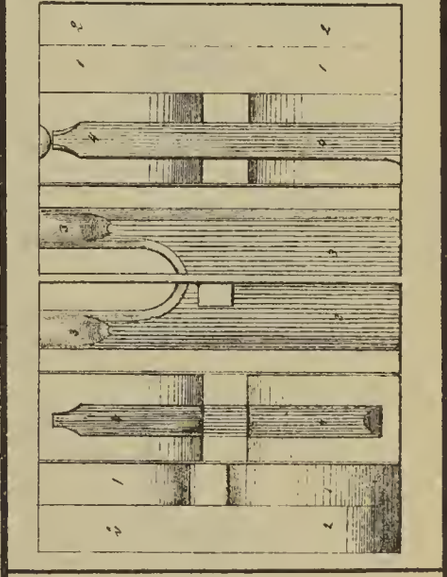
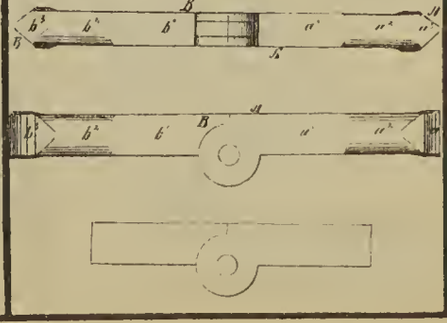
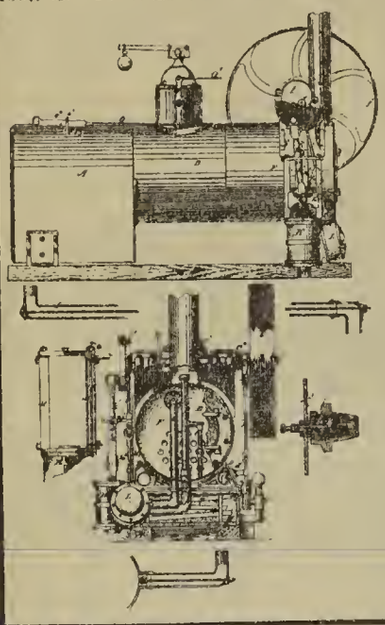


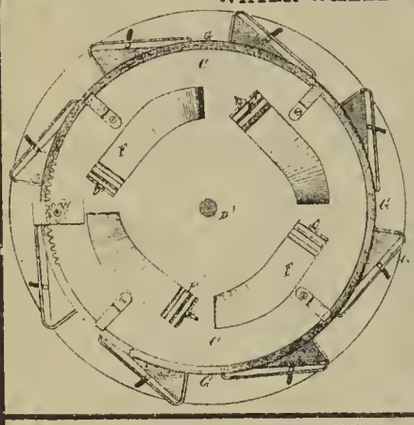
109,782. F. VAN PATTEN AND
E. D. CLAPP. STUMP
JOINT FOR CARRIAGE TOP BRACES



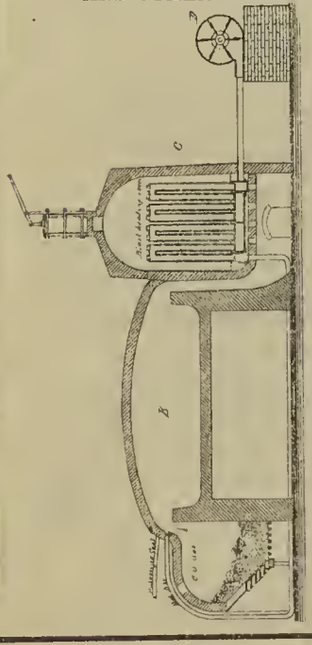
109,783. F. WEDGE. STEAM ENGINE.



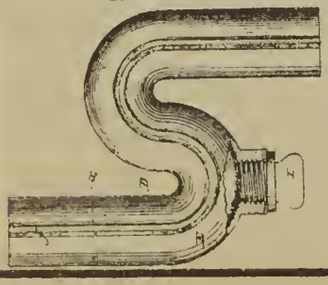
109,784. G. W. WERNTZ WATER WHEEL.



109,785. J. D. WHELPLEY AND J. J. STORER. HEATING METALLURGIC AND OTHER FURNACES.

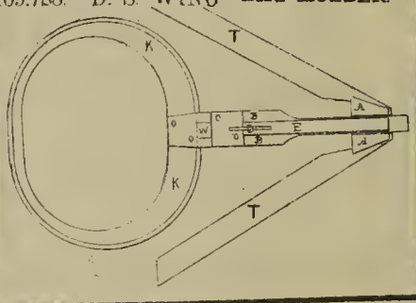


109,786. J. E. WHITE. CASTING STENCH TRAP

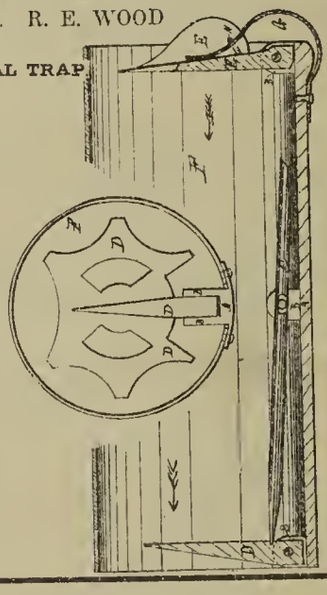


109,787. F. WICKS. ELEVATOR.

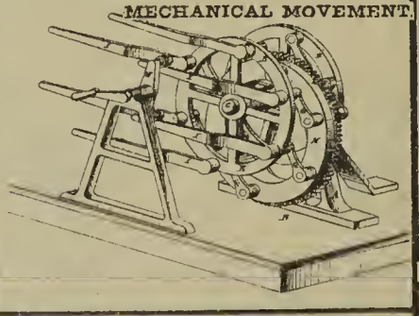
109,788. D. S. WING BAG HOLDER.



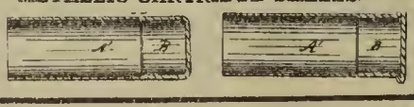
109,789. R. E. WOOD ANIMAL TRAP.



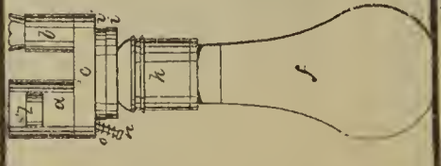
109,790. J. WOOLF. MECHANICAL MOVEMENT.



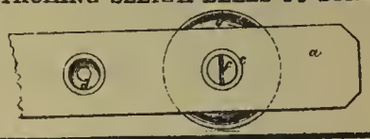
109,791. E. A. WORTHEN DEVICE FOR MANUFACTURING METALLIC CARTRIDGE SHELLS.



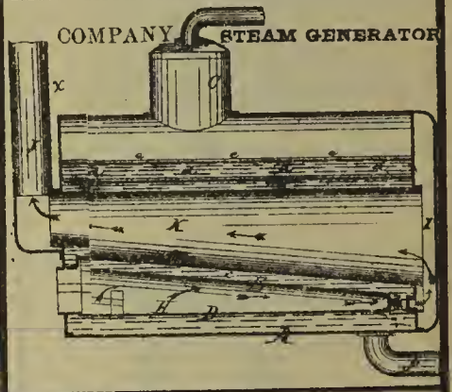
109,792 A. ZANTZINGER HAND STAMP.



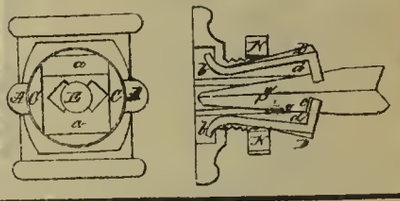
4,185. W. E. BARTON. ATTACHING SLEIGH BELLS TO STRAPS.



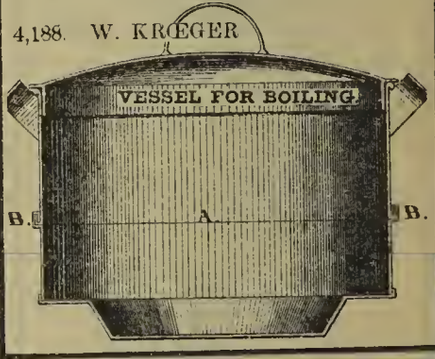
4,186. AMERICAN GERNER BOILER COMPANY. STEAM GENERATOR.



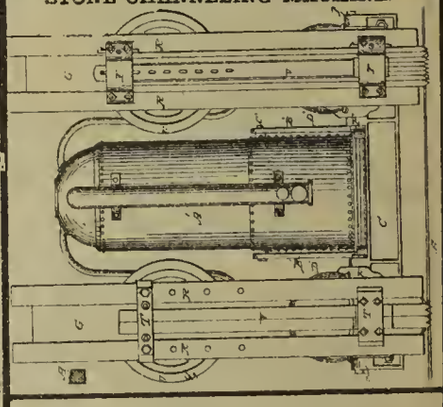
4,187. J. M. HORTON AUGER HANDLE.



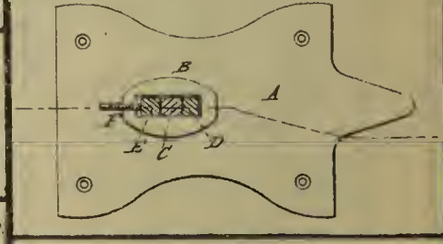
4,188. W. KRÖGER VESSEL FOR BOILING.



4,189. E. G. LAMSON STONE CHANNELING MACHINE.



4,190. C. H. LOOMIS. SCHOOL DESK.



4,191. H. SCOTT SKATE FASTENING.

ILLUSTRATIONS OF PATENTS

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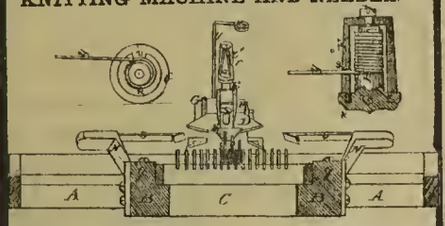
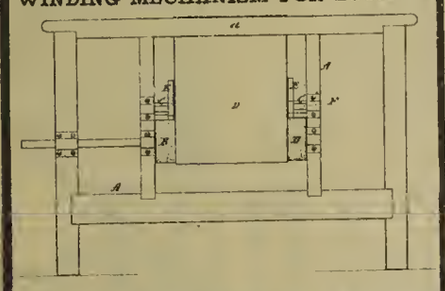
DECEMBER 6. 1870.

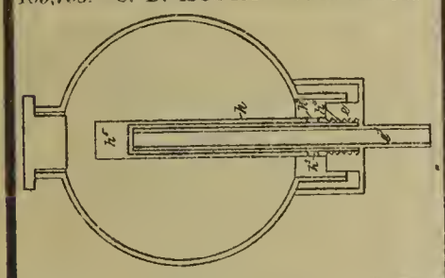
109,793. A. W ALLEN
KNITTING MACHINE AND NEEDLE.



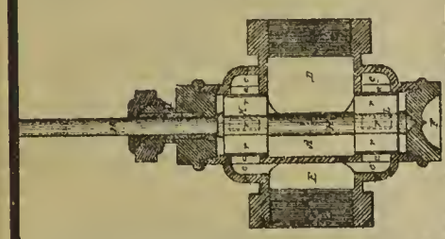
109,794. W. A. ARNOLD CLOTH WINDING MECHANISM FOR LOOMS.



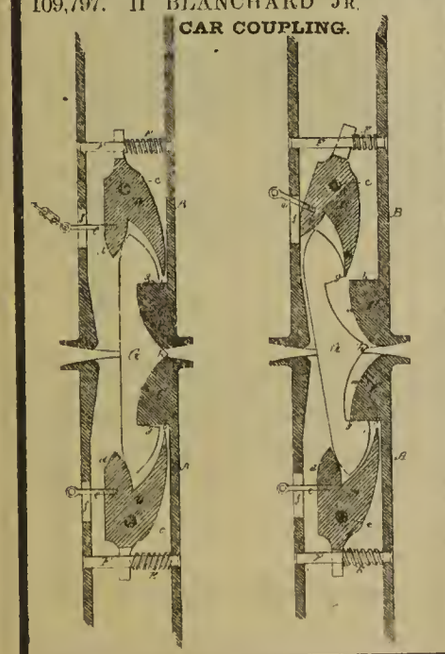
109,795. C. D. AUSTIN LUBRICATOR.



109,796. R. BERRYMAN VALVE COCK



109,797. H BLANCHARD Jr.
CAR COUPLING.



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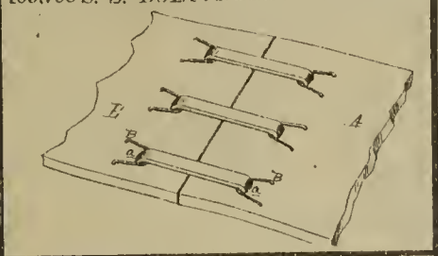
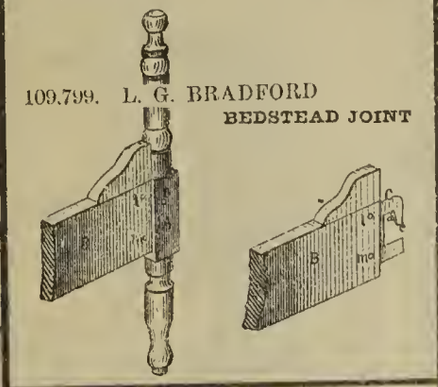
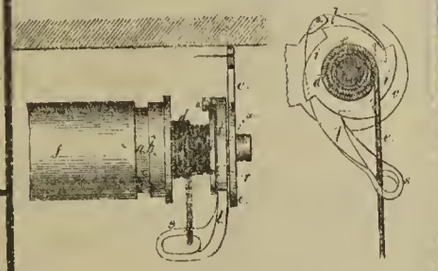


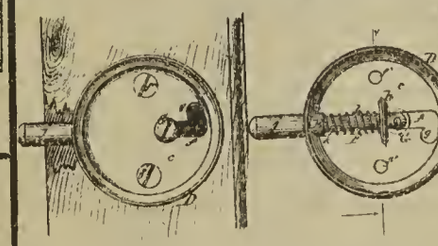
109,799. L. G. BRADFORD
BEDSTEAD JOINT



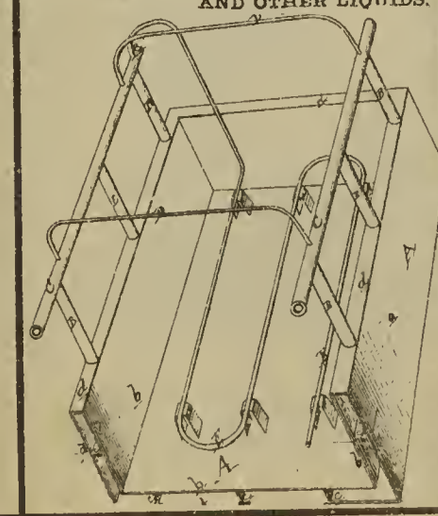
109,800. J. G. BROTHWELL.
CURTAIN FIXTURE.



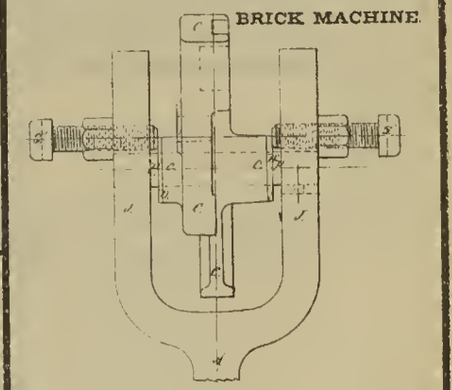
109,801. E. L. BROWN. SASH LOCK.



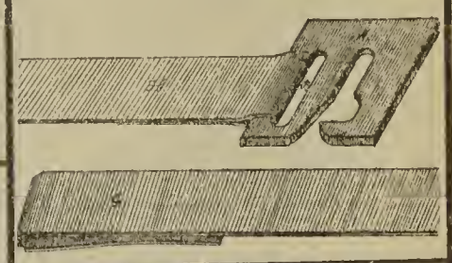
109,802. J. BUCHANAN APPARATUS FOR EVAPORATING BRINE AND OTHER LIQUIDS.



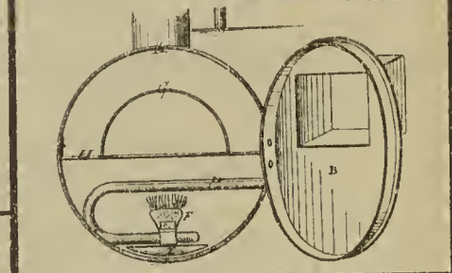
109,803. C. CHAMBERS, Jr
BRICK MACHINE.



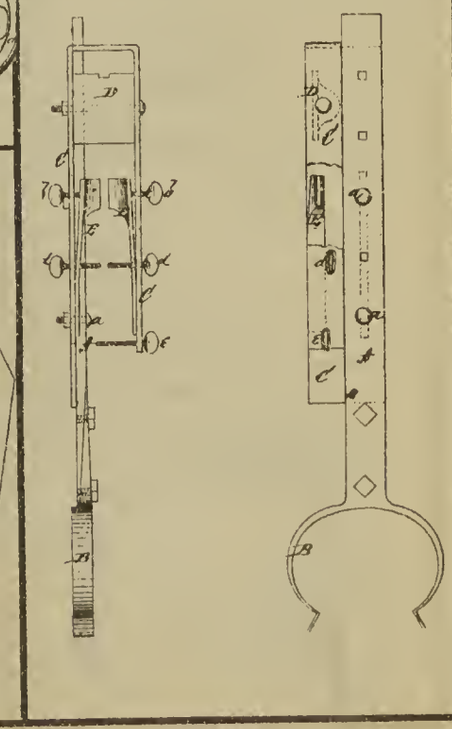
109,804. W CHAMBERS.
COTTON BALE TIE.



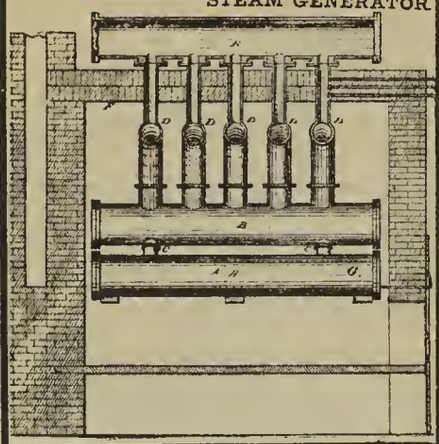
109,805. M. CONNER
TINSMITHS' FURNACE



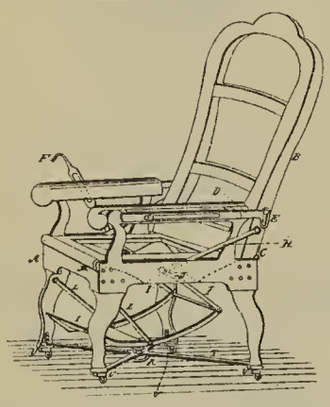
109,806. E. H. CORBIN.
CIRCULAR SAW JOINTER.



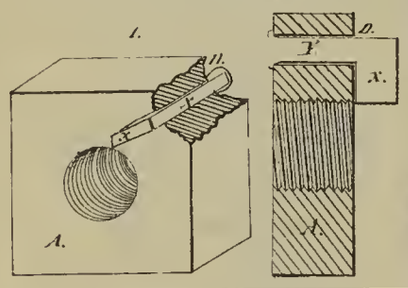
109,807. L. R. CORNELL STEAM GENERATOR.



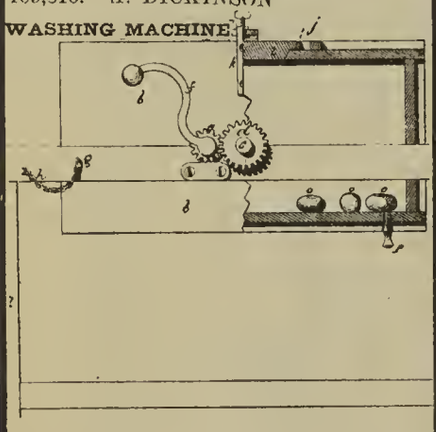
109,808. J. P. CURRY RAILWAY RECLINING CHAIR.



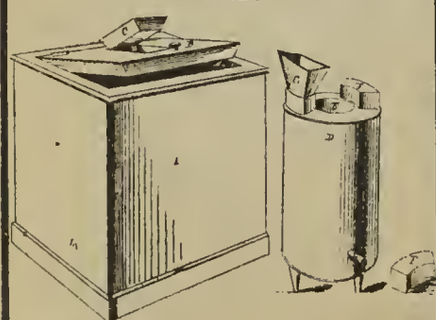
109,809. M. A. CUSHING AND O. R. GLOVER NUT LOCK.



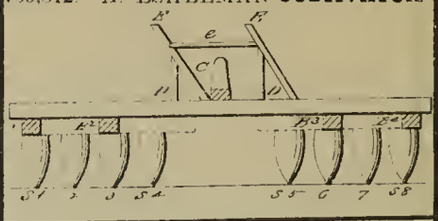
109,810. H. DICKINSON WASHING MACHINE.



109,811. H. F. EBERTS REFRIGERATOR.

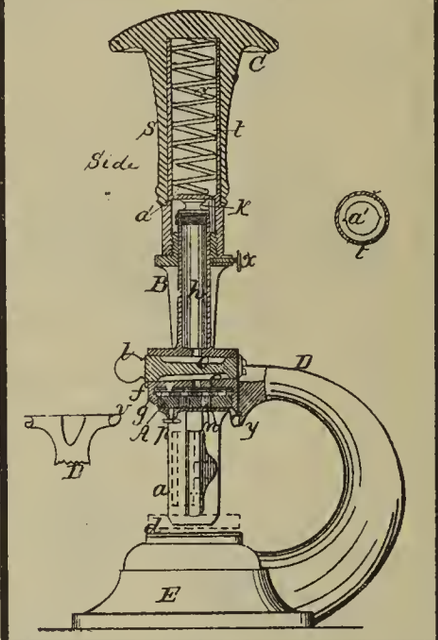


109,812. A. ESHLEMAN CULTIVATOR.

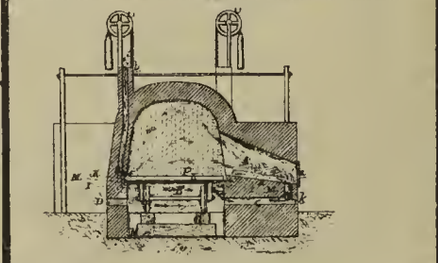


109,813. B. F. EVANS. BARREL SAFETY VALVE OR VENT.

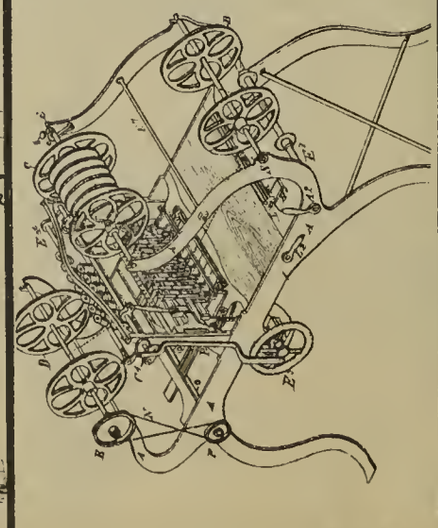
109,814. D. W. FISH. HAND STAMP.



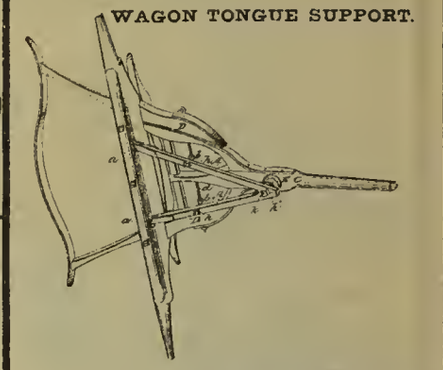
109,815. W. GILBERT PERPETUAL BRICK BURNING KILN.



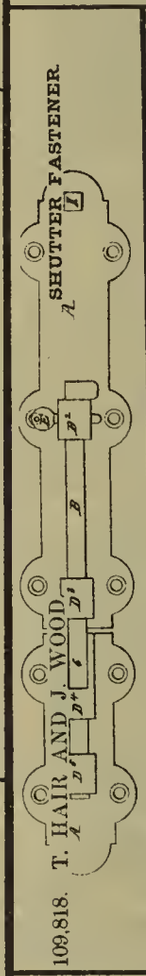
109,816. E. D. GIRD SEWING MACHINE FOR MAKING PUFFING.



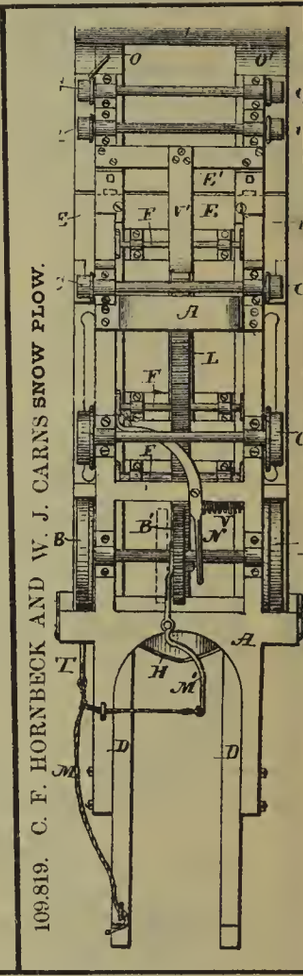
109,817. A. F. GUE. WAGON TONGUE SUPPORT.



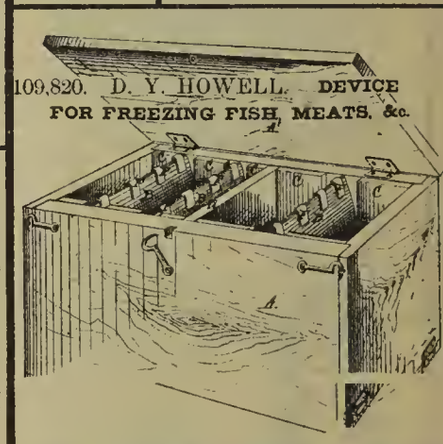
109,818. T. HAIR AND J. WOOD SHUTTER FASTENER.



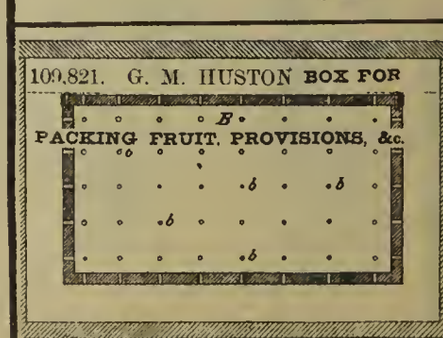
109,819. C. F. HORNBECK AND W. J. CARNS SNOW PLOW.



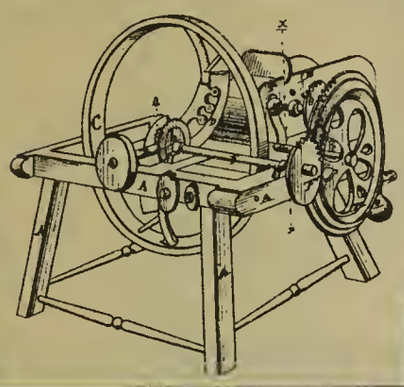
109,820. D. Y. HOWELL. DEVICE FOR FREEZING FISH, MEATS, &c.



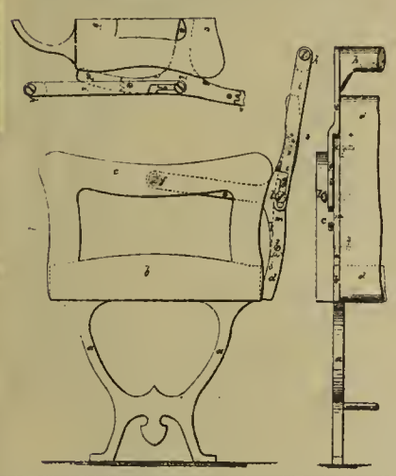
109,821. G. M. HUSTON BOX FOR PACKING FRUIT, PROVISIONS, &c.



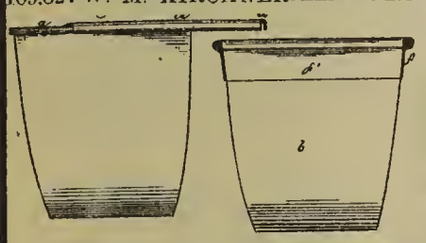
109,822. W. HUTCHINS FEED CUTTER.



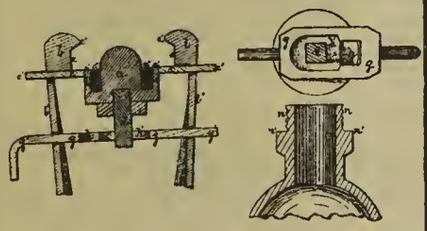
109,823. E. M. JUDD. HEAD REST FOR CAR SEATS.



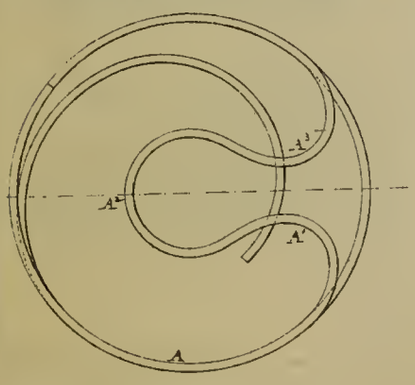
109,824 W. M. KIRCHNER JELLY GLASS.



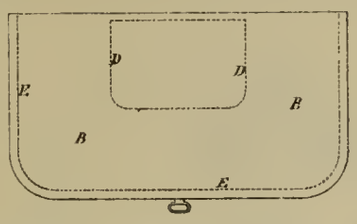
109,825. W. M. KIRCHNER. TOOL FOR FORMING SCREW THREADS ON GLASS JARS.



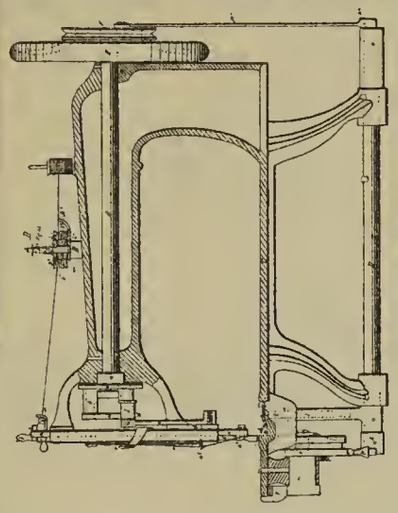
109,826. C. KLINE. HAIR SPRING OF WATCHES, &c.



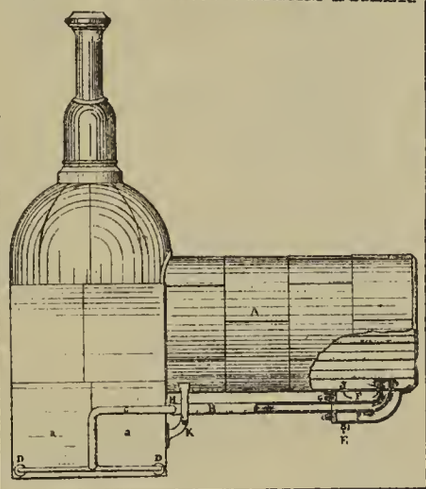
109,827 J. LEHMAN. POCKET BOOK.



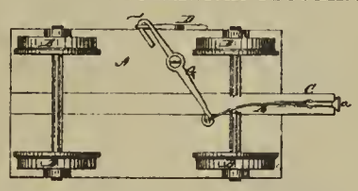
109,828. T. A. MACAULAY. SEWING MACHINE.



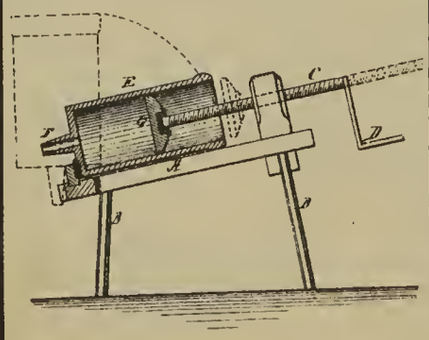
109,829. W. B. MACK STEAM BOILER.



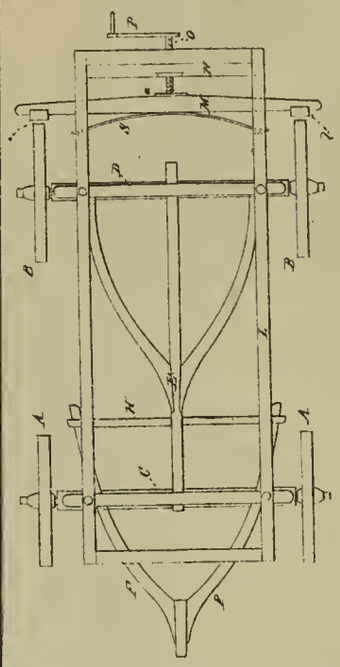
109,830. S MAHURIN. CAR COUPLING.



109,831. J. MICKLEY AND J. E. HARTMAN SAUSAGE STUFFER.

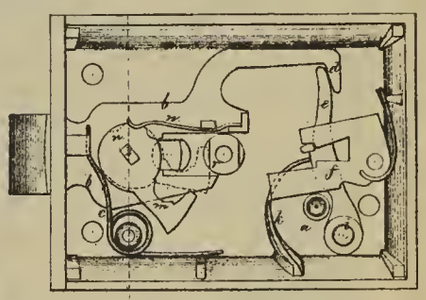


109,832. J. MICKLEY AND J. E. HARTMAN. WAGON BRAKE.

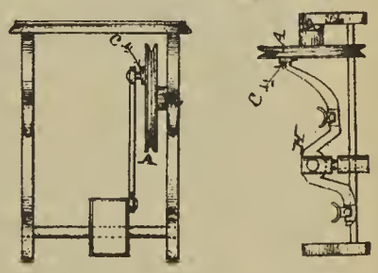


109,833 J. W. MORGENEIER VARNISH FOR COATING PHOTOGRAPHIC NEGATIVES.

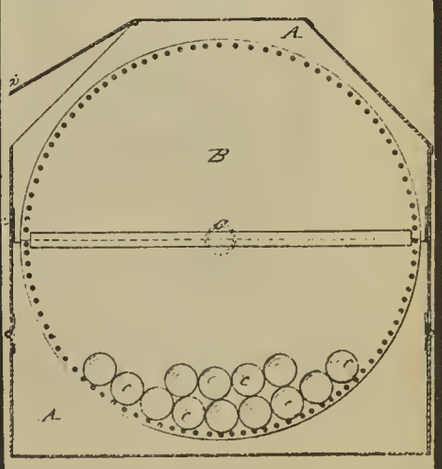
109,834. W. T. MUNGER. DOOR LATCH.



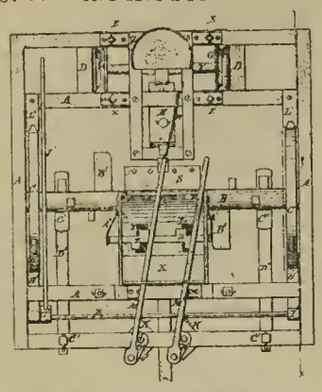
109,835. A. NIELSON TREADLE FOR SEWING MACHINES.



109,836. L. B. OSGOOD WASHING MACHINE.

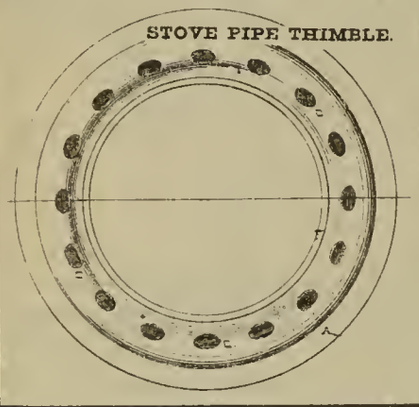


109,837 G. PADDINGTON CORN PLANTER



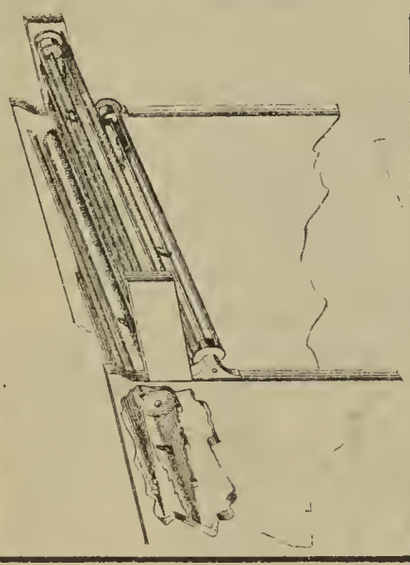
109,838 J. D. PIERCE AND J. B. SMITH

STOVE PIPE THIMBLE.



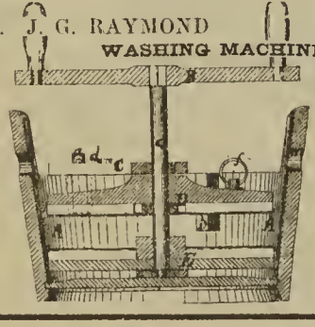
109,839 H. RAYMOND

GRAIN SEPARATOR.

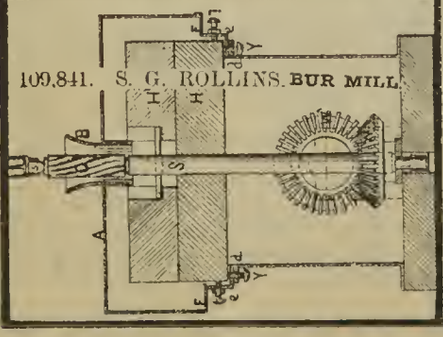


109,840. J. G. RAYMOND

WASHING MACHINE.

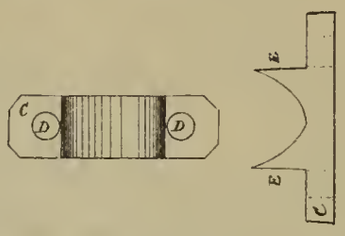


109,841. S. G. ROLLINS. BUR MILL.

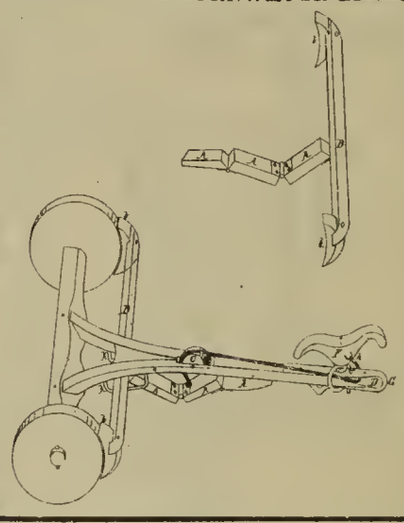


109,842. S. ROWELL

CARRIAGE AXLE AND AXLE YOKE

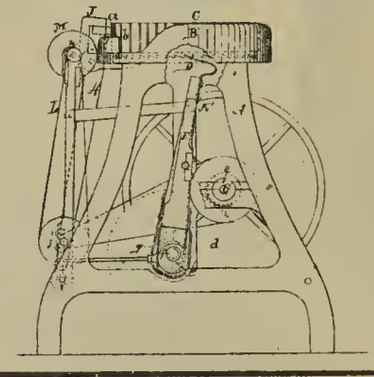


109,843 G. W. SANBORN WAGON BRAKE



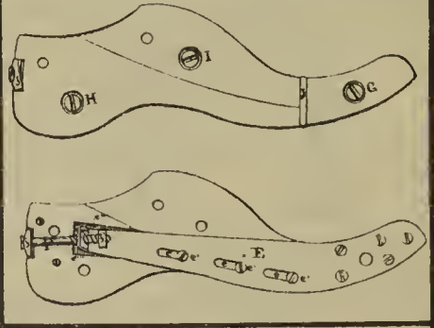
109,844. F. SANDHAM.

MACHINE FOR STAMPING, PRESSING, AND POINTING HORSESHOE NAILS.

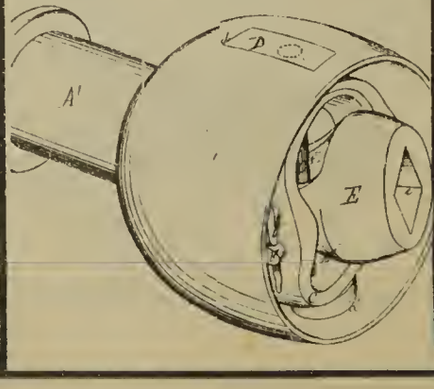


109,845. S. W. SHOREY.

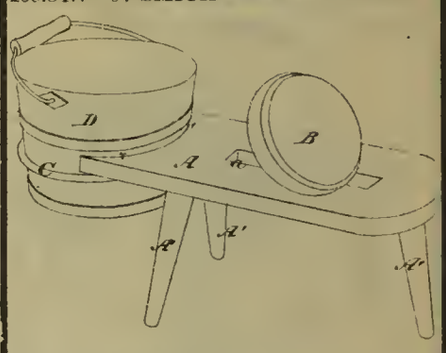
LAST FOR BOOTS AND SHOES.



109,846 W. SMEED SHAFT COUPLING

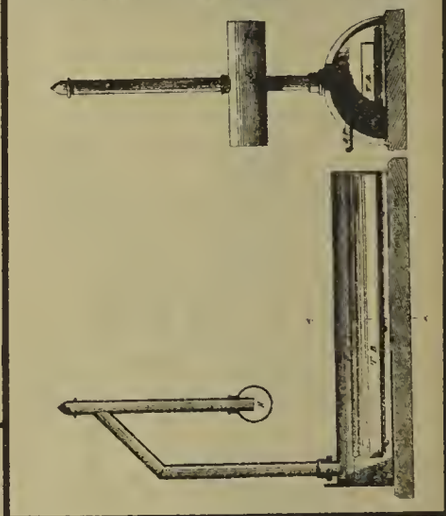


109,847. G. SMITH MILKING STOOL.



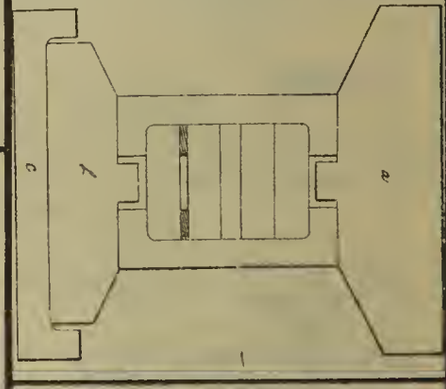
109,848. J. H. SMITH

APPARATUS FOR THE MANUFACTURE OF GAS FROM HYDROCARBONS.



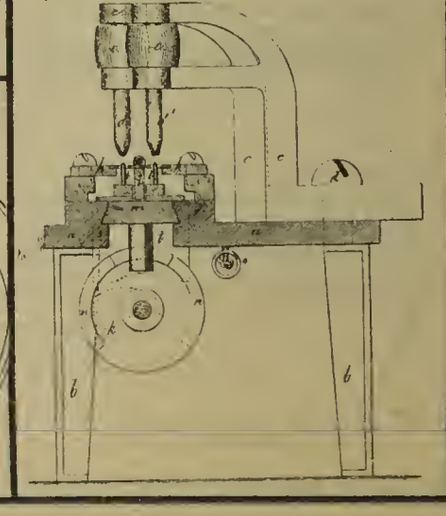
109,849. G. E. STEDMAN BUCKLE.

109,850. J. STOKES. PILE FOR BEAMS.

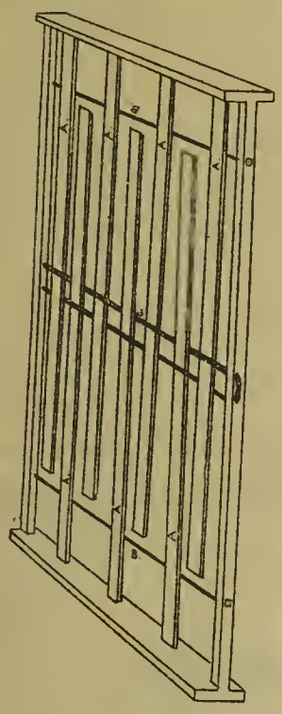


109,851. L. P. SUMMERS.

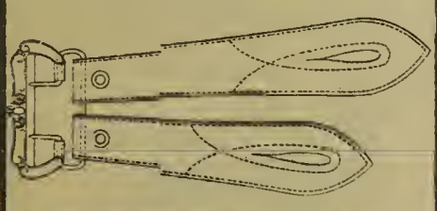
MACHINE FOR COUNTERSINKING THE HOLES IN BUTT HINGES.



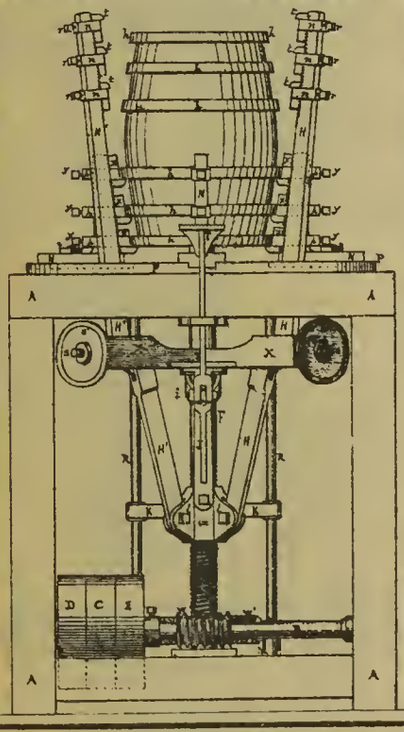
109,852. C. VALKMAR BED BOTTOM.



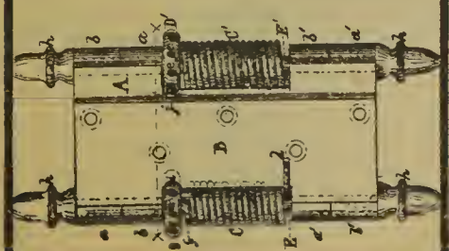
109,853. J. W. WATTLES SUSPENDERS



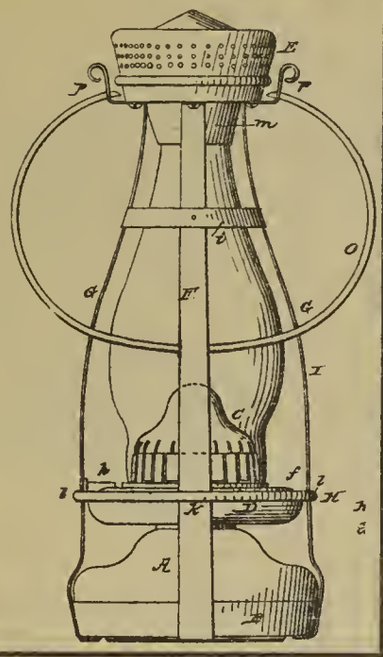
109,854. P. WELCH
MACHINE FOR TRUSSING BARRELS.



109,855. W. WELLS SPRING HINGE.

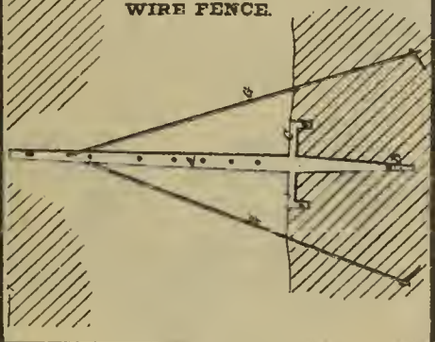


109,856. H. J. WHITE. LANTERN.

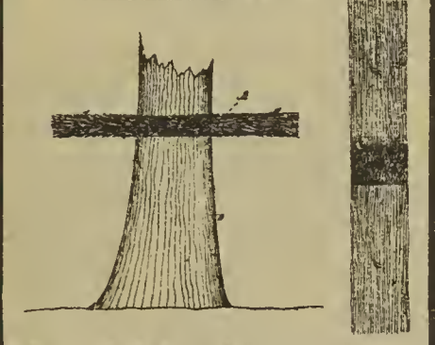


109,857. D. WHITELEY.
PROCESS OF SEPARATING THE HAIR FROM THE WARP IN HAIR CLOTH.

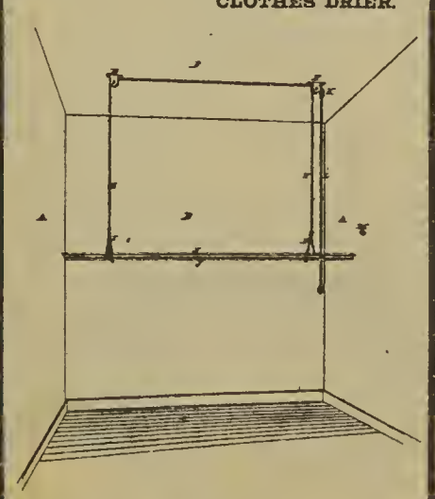
109,858B. WILSON AND F. P. GRIMES
WIRE FENCE.



109,859. B. L. ALLEY AND
T. W. SHAPLEIGH. TREE PROTECTOR

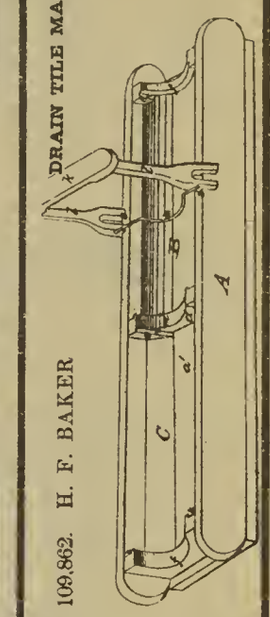


109,860. C. R. ANDERSON
CLOTHES DRIER.

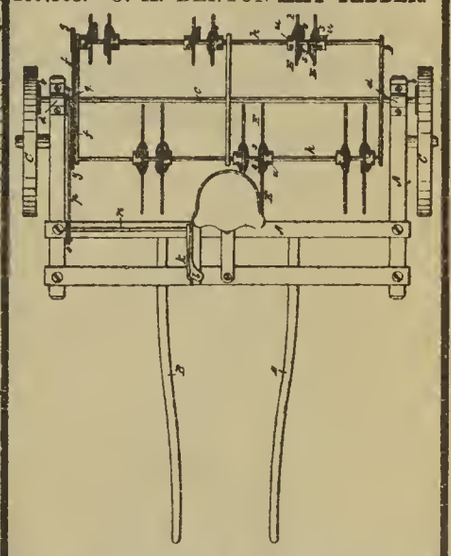


109,861. R. C. ANDRUS. CORPSE PRESERVER.

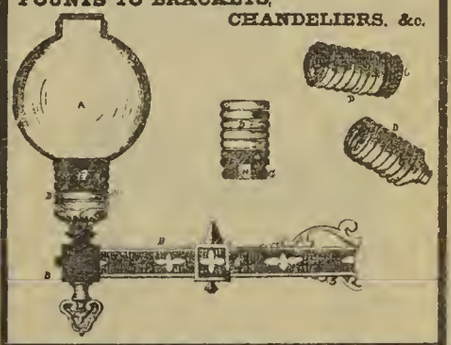
109,862. H. F. BAKER DRAIN TILE MACHINE.



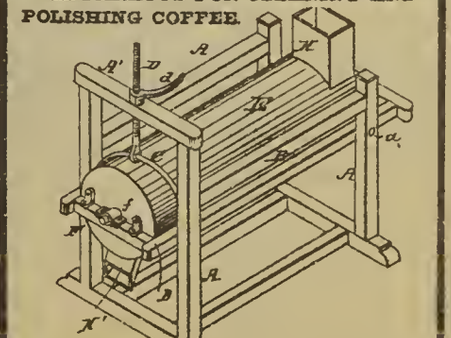
109,863. O. A. BENTON HAY TEDDER.



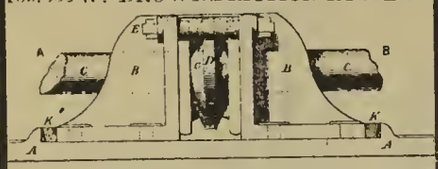
109,864. G. BOHNER. ATTACHING LAMP FOUNTS TO BRACKETS, CHANDELIERS, &c.



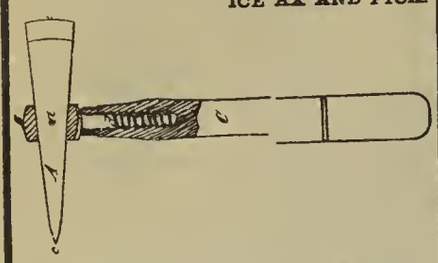
109,865. J. H. BROOKMIRE.
APPARATUS FOR CLEANING AND POLISHING COFFEE.



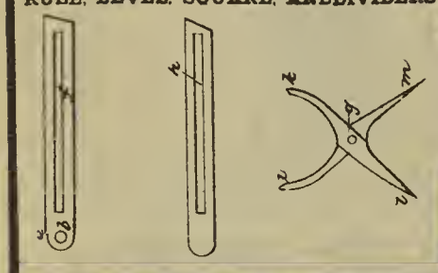
109,866 W. BROWN. FRICTION ROLLER.



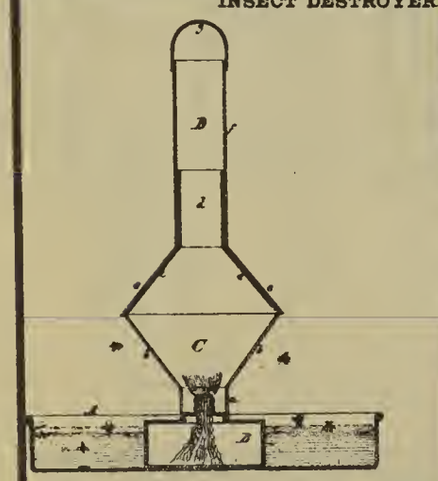
109,867. J. N. BUNNELL. ICE AX AND PICK.



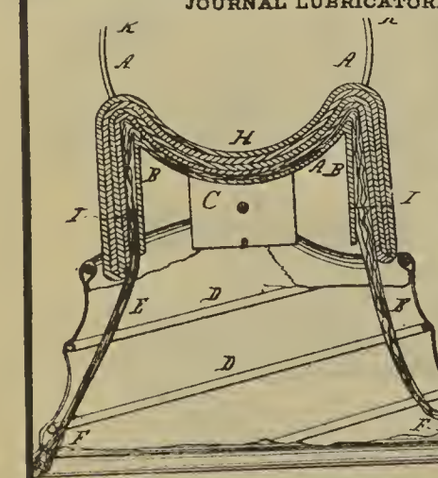
109,868. G. G. BURGESS. COMBINED RULE, BEVEL, SQUARE, AND DIVIDERS



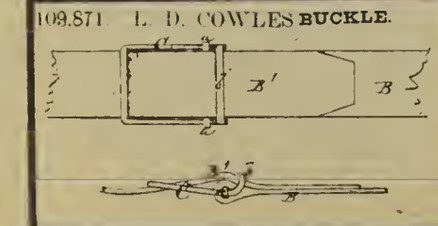
109,869. T. BYRNE AND D. STRUNK. INSECT DESTROYER.



109,870. J. A. COWLES. JOURNAL LUBRICATOR.



109,871. L. D. COWLES. BUCKLE.

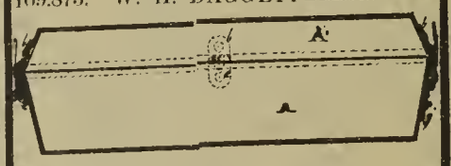


109,872. C. M. CRESSON. SEASONING AND PRESERVING WOOD

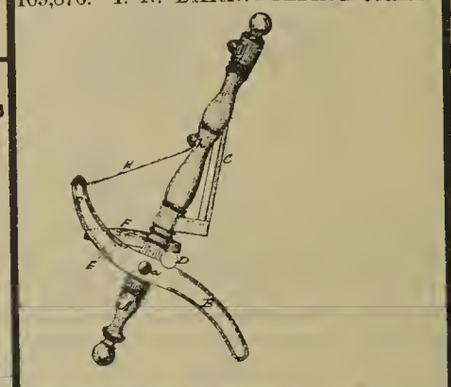
109,873. C. M. CRESSON. SEASONING AND PRESERVING WOOD.

109,874 C. M. CRESSON. TREATING AND RECOVERING THE LIQUIDS USED IN SEASONING AND PRESERVING WOOD.

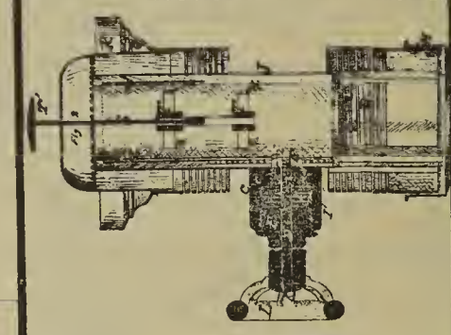
109,875. W. H. DAGGETT. BREAD PAN.



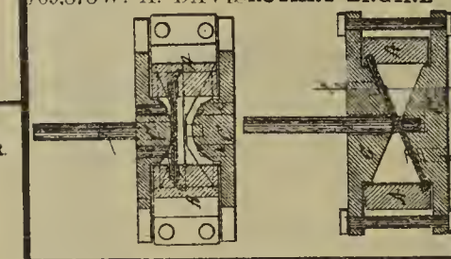
109,876. I. N. DANN. FOLDING CHAIR.



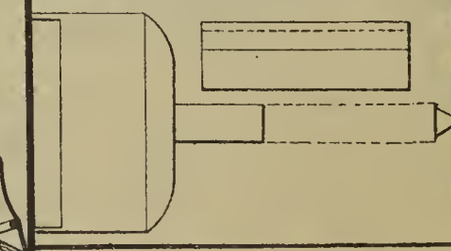
109,877. S. M. DAVIES. LOCOMOTIVE HEAD LIGHT.



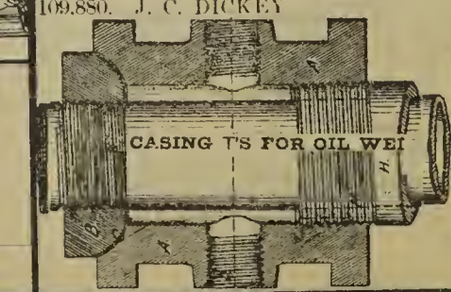
109,878 W. A. DAVIS. ROTARY ENGINE



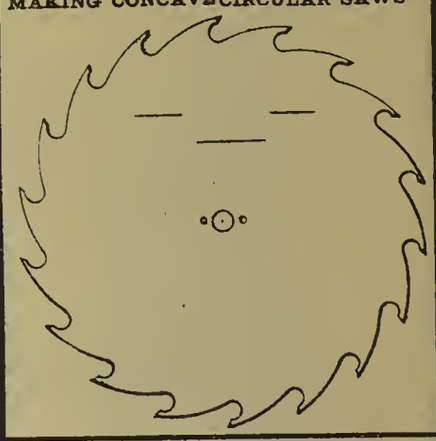
109,879. M. DE MONTUFAR. INSULATOR FOR TELEGRAPH WIRES.



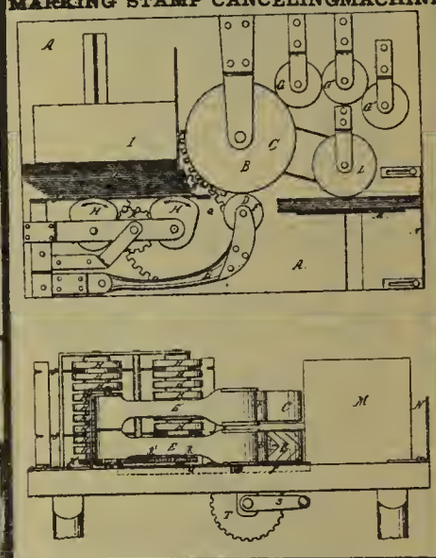
109,880. J. C. DICKEY. CASING T'S FOR OIL WEL



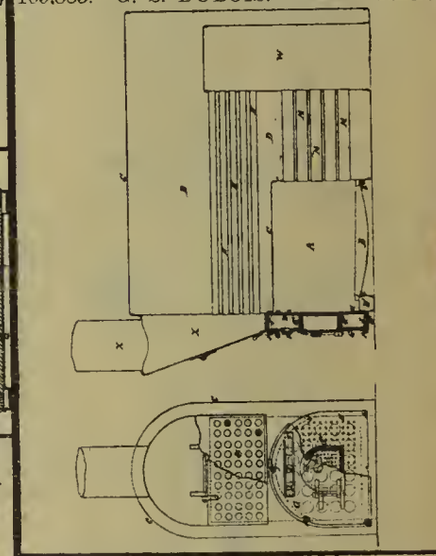
109,881. T. S. DISSTON. PROCESS FOR MAKING CONCAVE CIRCULAR SAWS



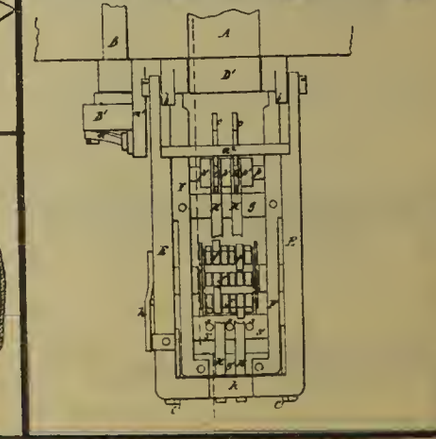
109,882. C. E. DONNELLAN. POST MARKING STAMP CANCELING MACHINE



109,883. G. S. DUBOIS. STEAM BOILER.

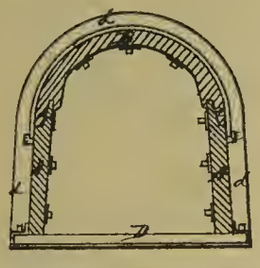


109,884. J. C. DUCKWORTH. HARNESS OPERATING MECHANISM FOR LOOMS



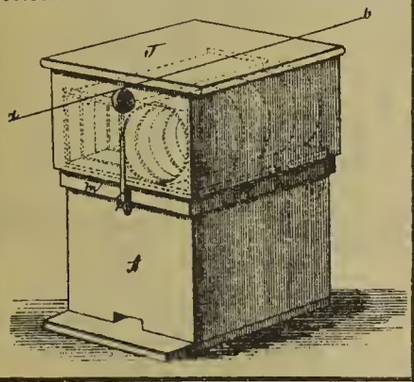
109,885 W. H. ELMER WATER WHEEL.

109,886 M. G. FREEMAN IRON CULVERT.

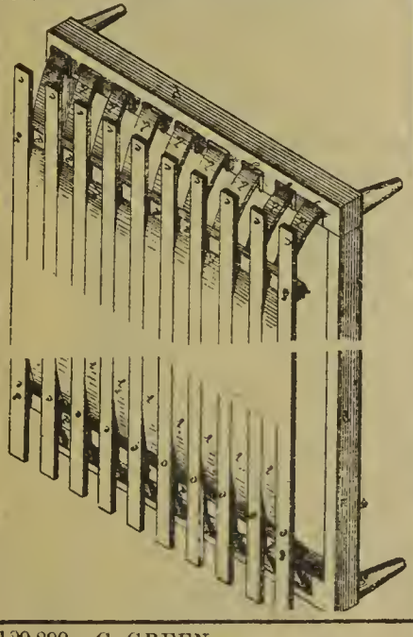


109,887. C. H. FRINGS. SACCHARIFYING MASH FOR GRAIN

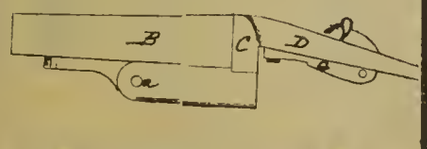
109,888. J. W. GLADDING BEE HIVE.



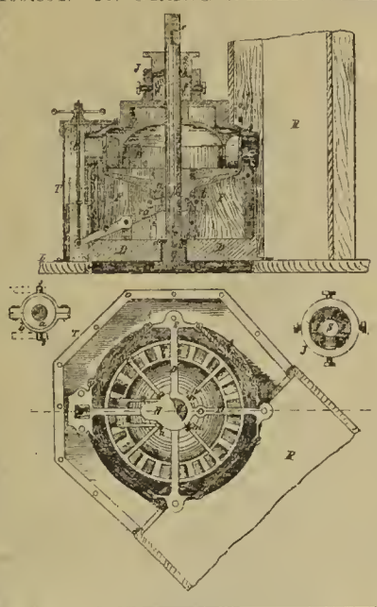
109,889. C. GLENN SPRING BED BOTTOM.



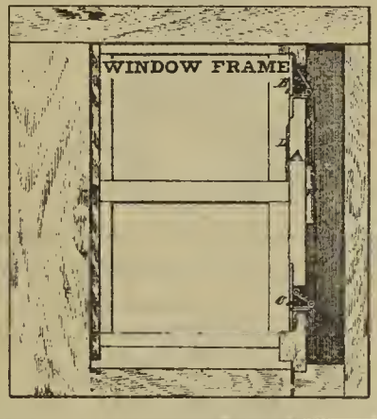
109,890. C. GREEN. BREECH LOADING FIRE ARM



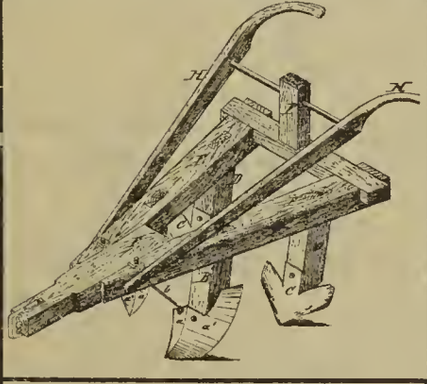
109,891. M. GREGG WATER WHEEL.



109,892 W. H. GRIFFIN



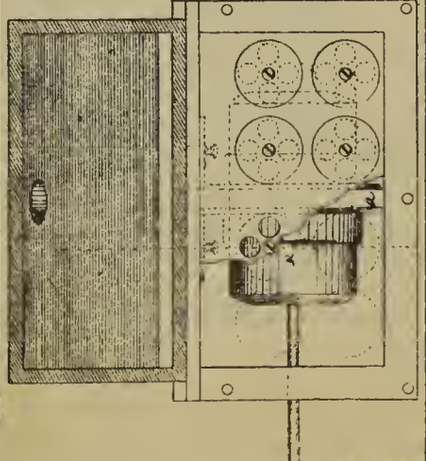
109,893. T. GUICE. COTTON PLOW.



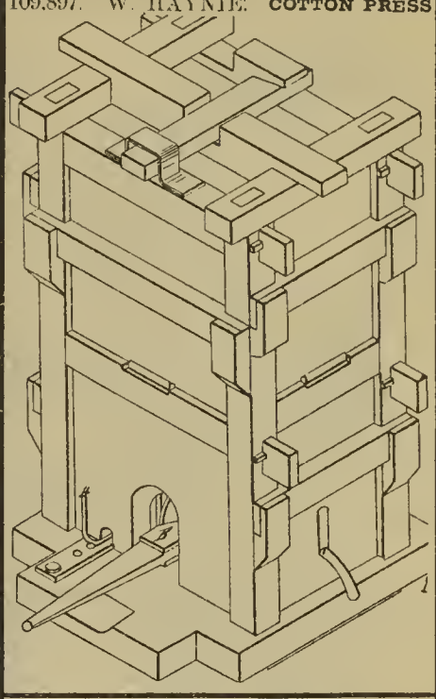
109,894. W. HAINSWORTH MOLD AND CONE FOR METALLIC CASTINGS.

109,895. O. F. HARRIS MEDICAL COMPOUND.

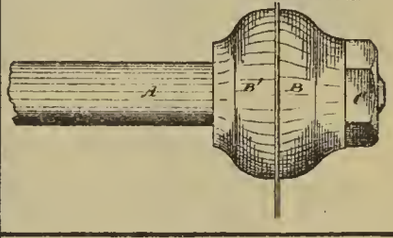
109,896. W. HARTLEY. PUMP.



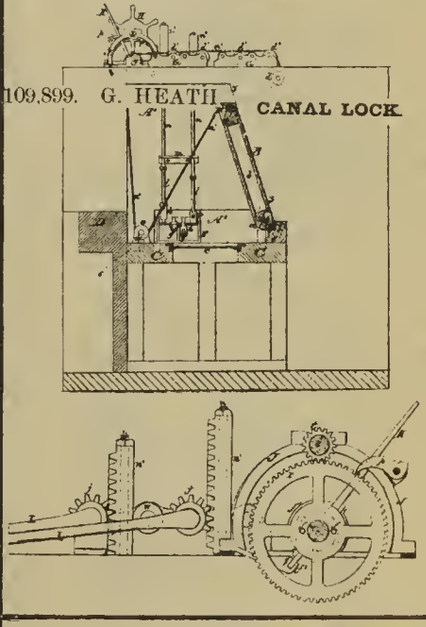
109,897. W. HAYNIE. COTTON PRESS



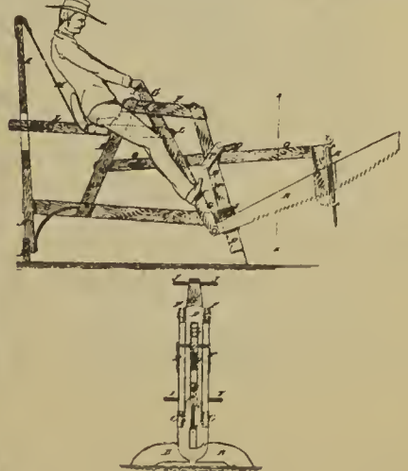
109,898. J. B. HEALD COLLAR FOR CIRCULAR SAWS.



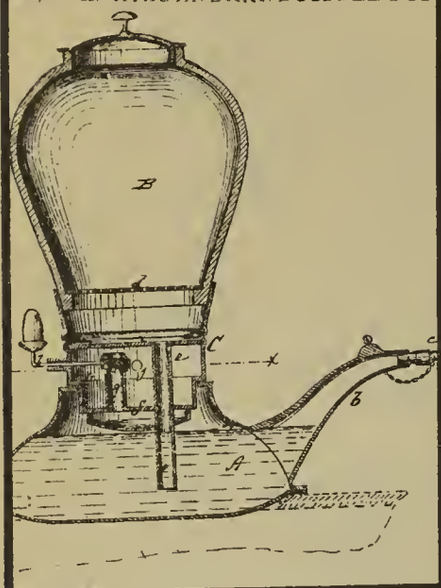
109,899. G. HEATH CANAL LOCK.



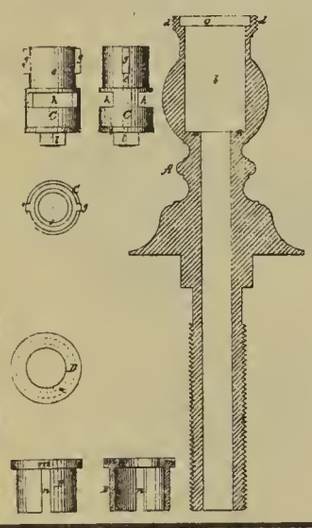
109,900. D. HELLER. SAWING MACHINE.



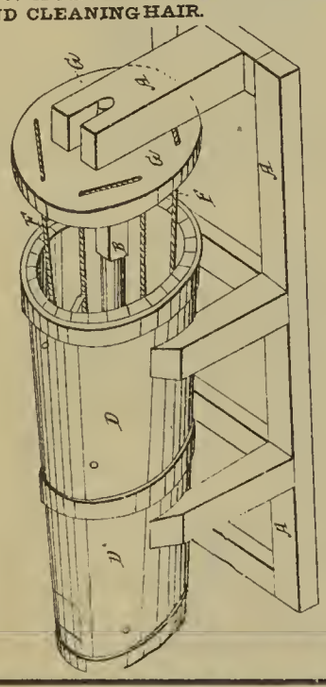
109,901 L. HILDENBRAND COFFEE POT



109,902. J. HILLS. FAUCET.

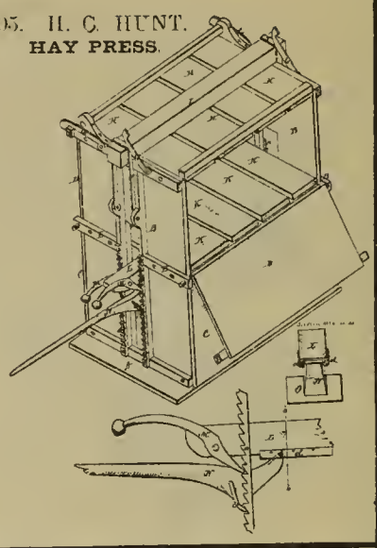


109,903. G. P. HOLLOWAY AND W. J. HUEY MACHINE FOR BEATING AND CLEANING HAIR.

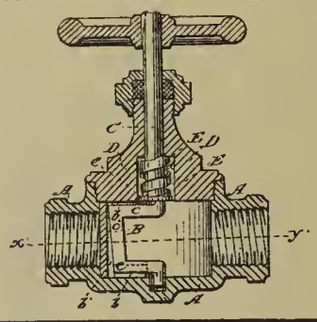


109,904. W. D. HOOKER DIRECT ACTING STEAM ENGINE

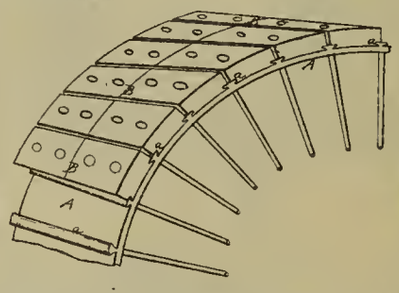
109,905. H. C. HUNT. HAY PRESS.



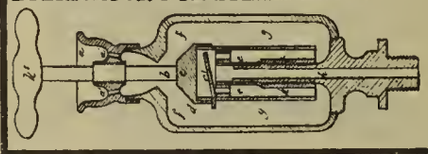
109,906. C. E. HUTSON. STOP VALVE.



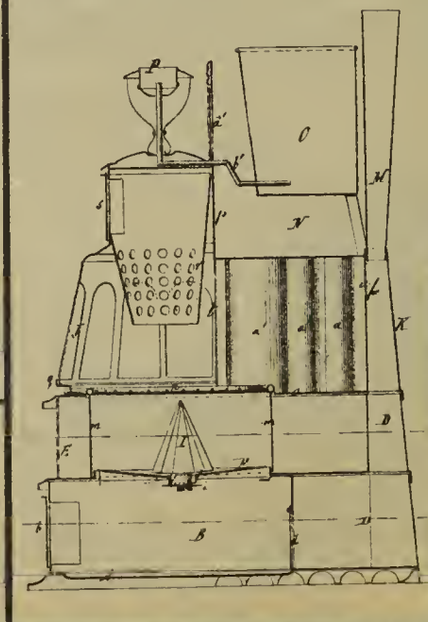
109,907. O. HYDE. TIRE FOR TRACTION ENGINE.



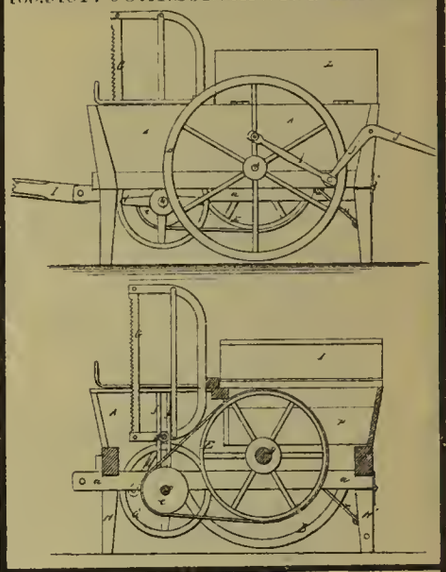
109,908. F. J. WIGAN LUBRICATOR FOR STEAM ENGINES.



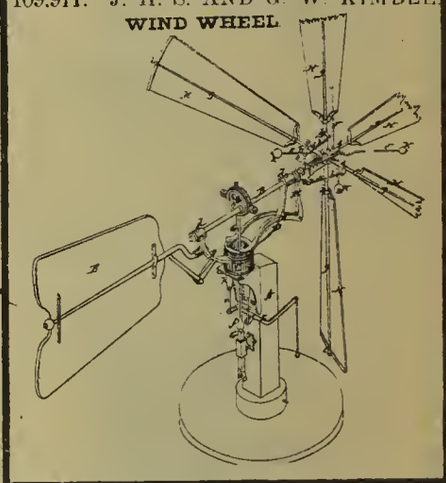
109,909. J. JAEGER BASE BURNING FIRE PLACE HEATER



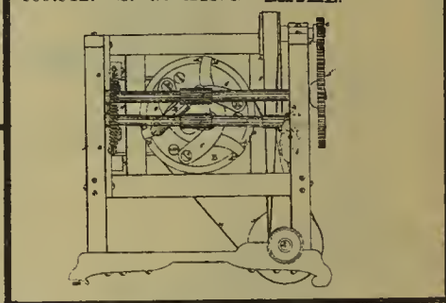
109,910 P. JOHNSON. SAWING MACHINE



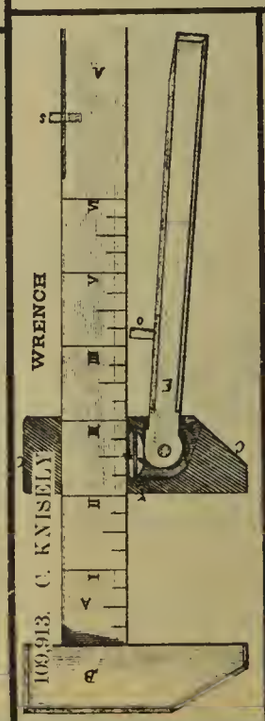
109,911. J. H. S. AND G. W. KIMBLE WIND WHEEL.



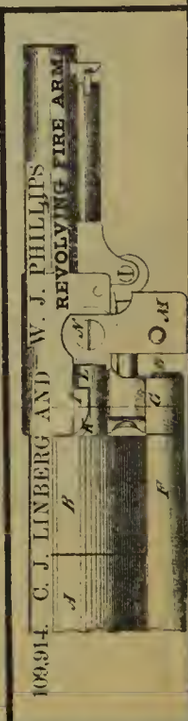
109,912. S. U. KING LATHE.



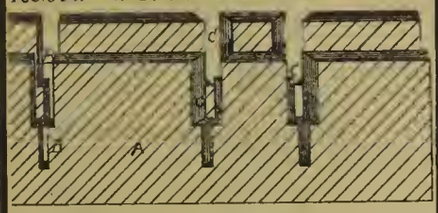
109,913. C. KNISELY WRENCH



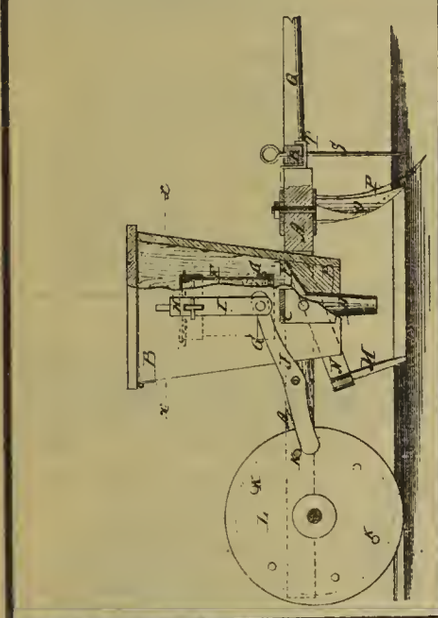
109,914. C. J. LINBERG AND W. J. PHILLIPS REVOLVING FIRE ARM



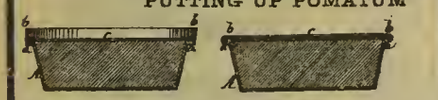
109,915. C. F. LINSCOTT MITER BOX



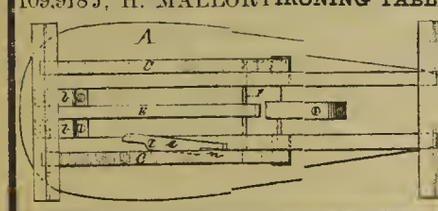
109,916. S. D. LUCAS. COMBINED HAND SEED DRILL AND CULTIVATOR.



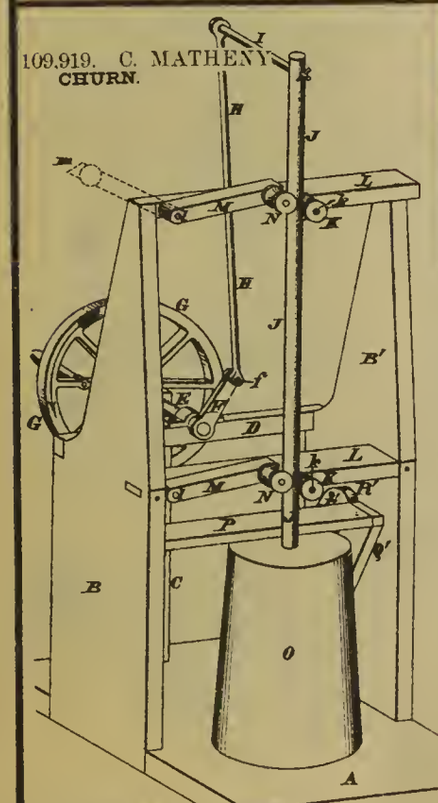
109,917 E. LUDDE. PUTTING UP POMATUM



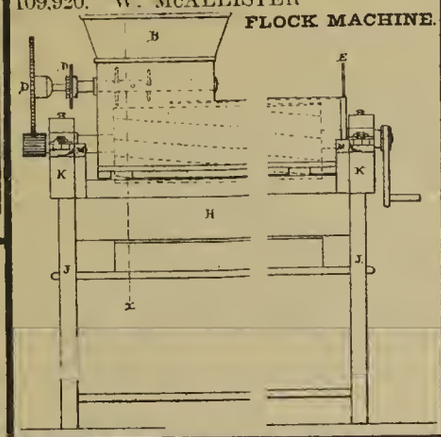
109,918 J. H. MALLORY IRONING TABLE.



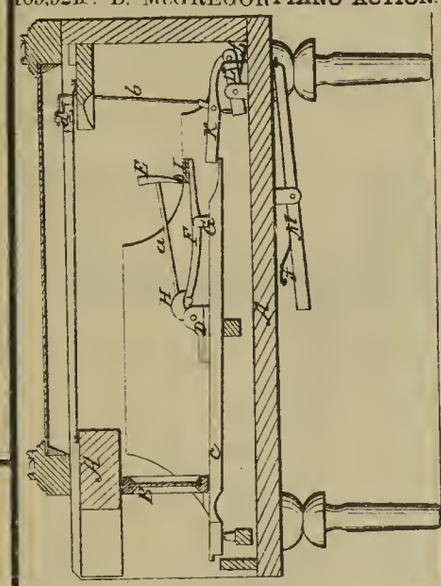
109,919. C. MATHENY CHURN.



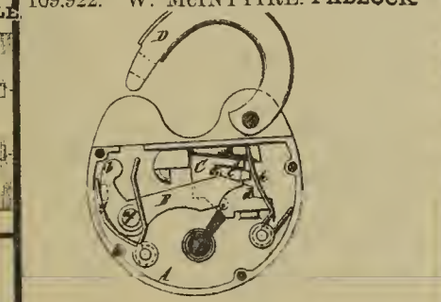
109,920. W. McALLISTER FLOCK MACHINE.



109,921 F. B. McGREGOR PIANO ACTION.

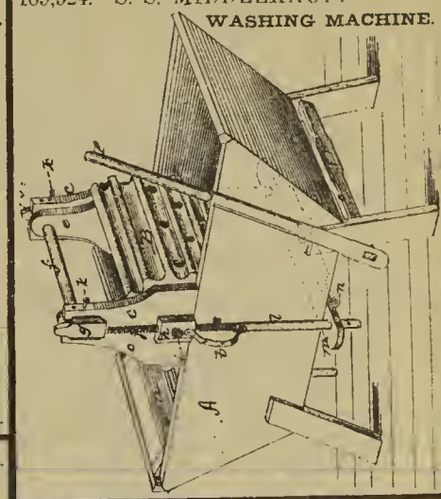


109,922. W. McINTYIRE. PADLOCK

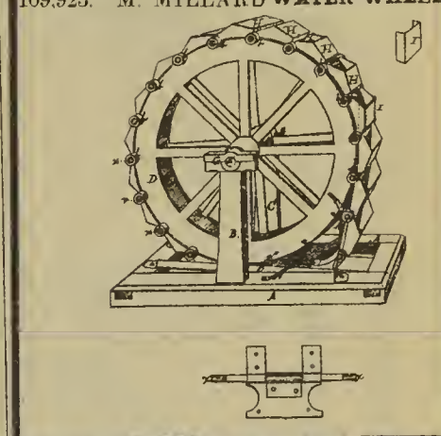


109,923. N. MENDENHALL. CORN PLANTER.

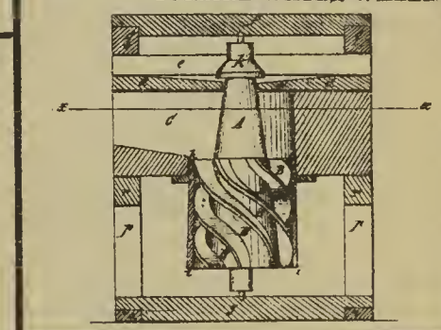
109,924. S. S. MIDDLEKAUFF WASHING MACHINE.



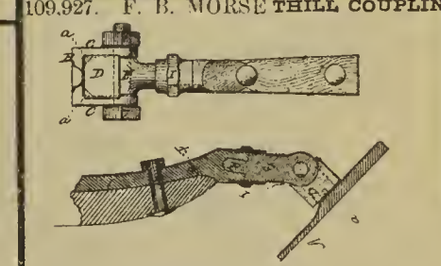
109,925. M. MILLARD WATER WHEEL



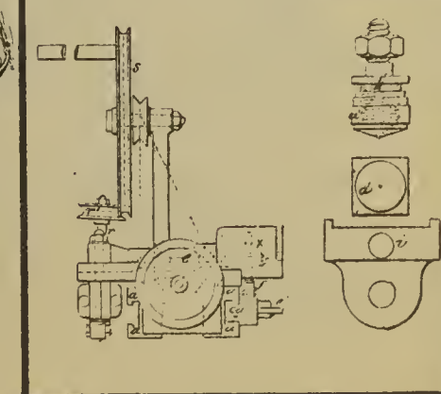
109,926. R. MONROE TURBINE WATER WHEEL.



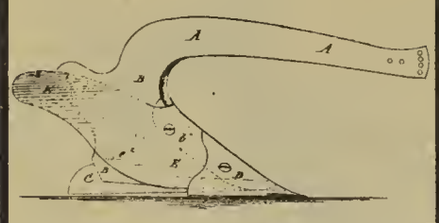
109,927. F. B. MORSE THILL COUPLING



109,928. J. L. NORTON APPARATUS FOR DRESSING AND FURROWING MILLSTONES



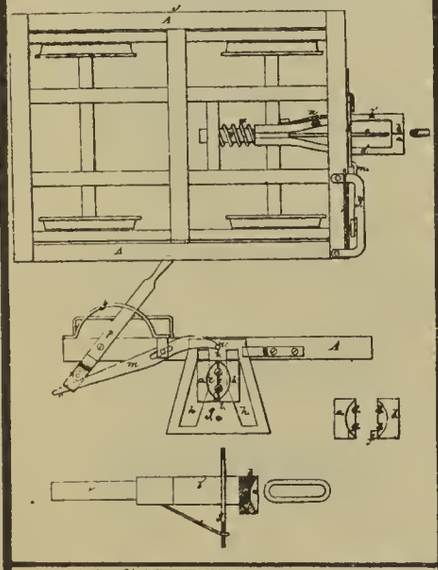
109,929. J. K. ODELL AND W. S. LITTLE CAST IRON PLOW.



109,930. T. ORCHARD COUPLING FOR EARTH BORING AUGERS

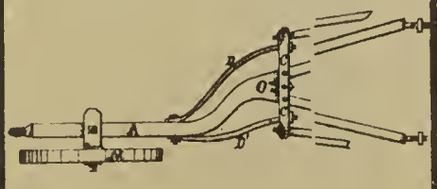
109,931. W. I. PAGE. METALLIC CARTRIDGE.

109,932. J. R. PALMER CAR COUPLING.

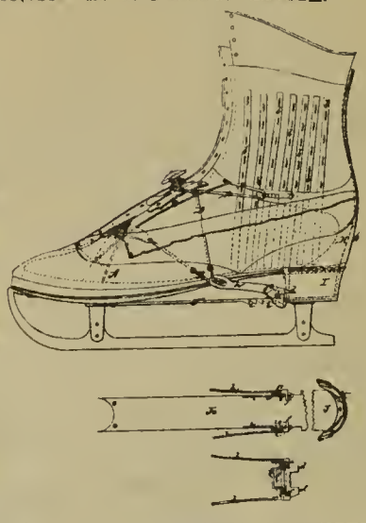


109,933. A. PATTEN SHOE LACING HOOK

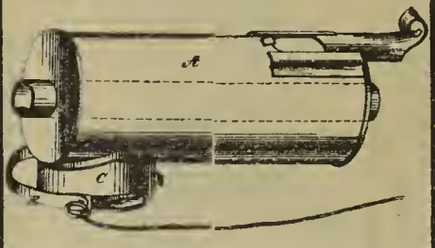
109,934. E. PHILLIPS CORN PLOW



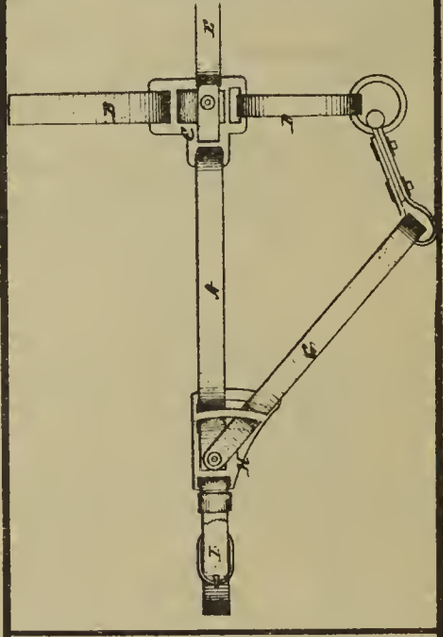
109,935. A. C. PLATT. SKATE.



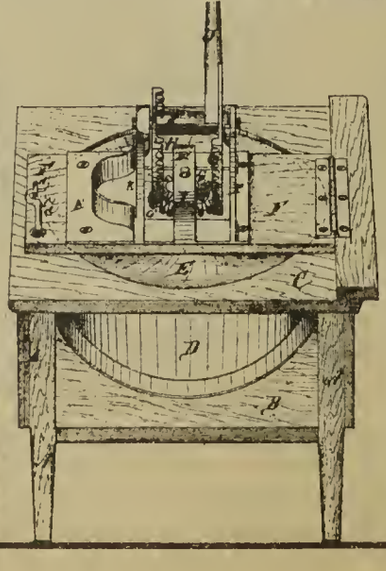
109,936. H. G. PORTER CORN PLANTER.



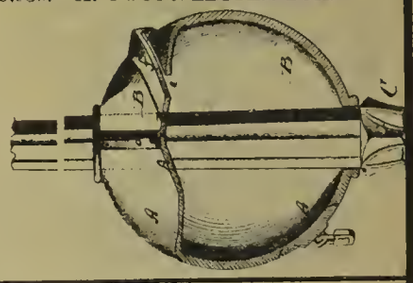
109,937. R. PORTER HALTER.



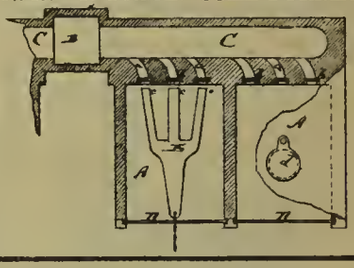
109,938. S. POST AND H. D. MARTIN WASHING MACHINE.



109,939. A. POTTS. LETTER BOX.

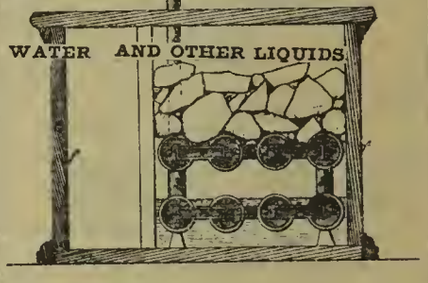


109,940. T. PRICE. COKE FURNACE.

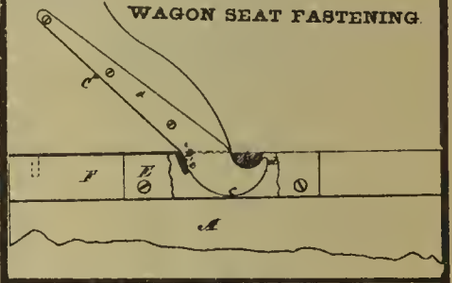


109,941. F. PUETZ. BUCKLE.

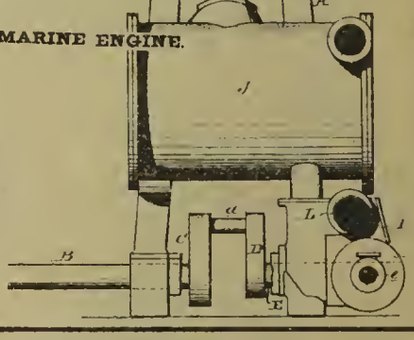
109,942. A. D. PUFFER APPARATUS FOR COOLING SODA WATER AND OTHER LIQUIDS.



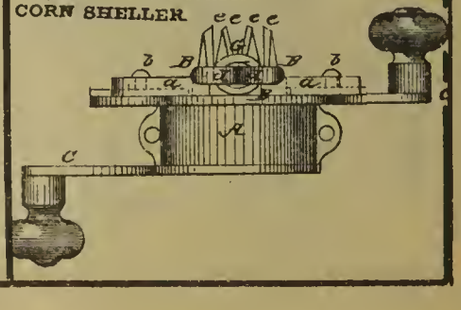
109,943. J. C. RANKIN WAGON SEAT FASTENING.



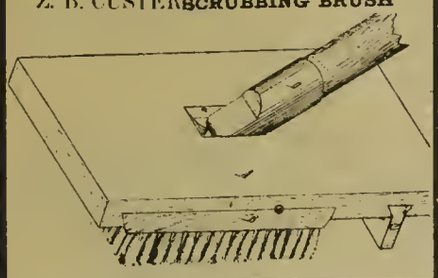
109,944. W. B. REANEY MARINE ENGINE.



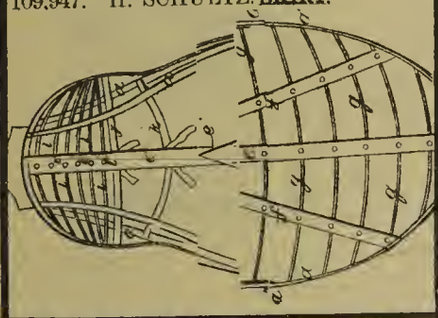
109,945. G. W. REISINGER CORN SHELLER.



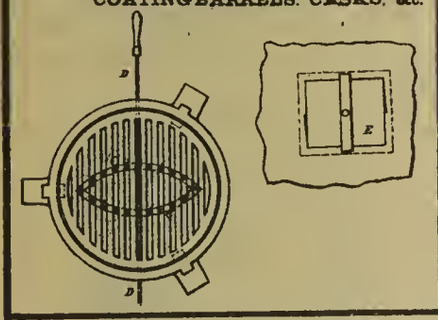
109,946. R. ROCKWELL AND Z. B. CUSTER SCRUBBING BRUSH



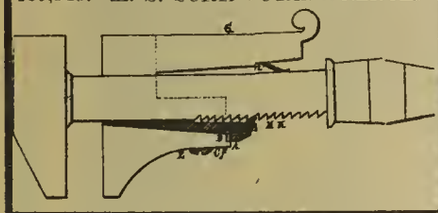
109,947. H. SCHULTZ. SKIRT.



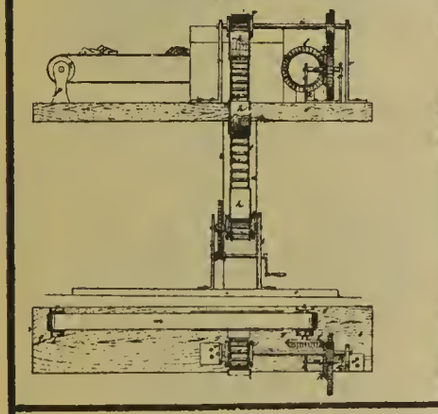
109,948. L. SCHULZE. APPARATUS FOR PITCHING AND COATING BARRELS, CASKS, &c.



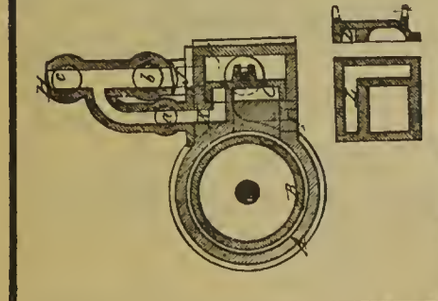
109,949. E. S. SCRIPTURE. WRENCH.



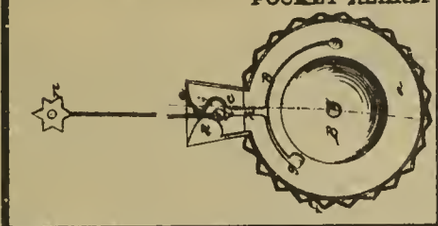
109,950. T. SHANKS ELEVATOR AND DISTRIBUTER.



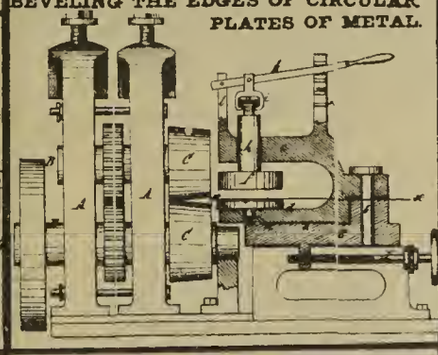
109,951. S. F. SHELBOURNE AND C. E. EMERY DIRECT ACTING ENGINE



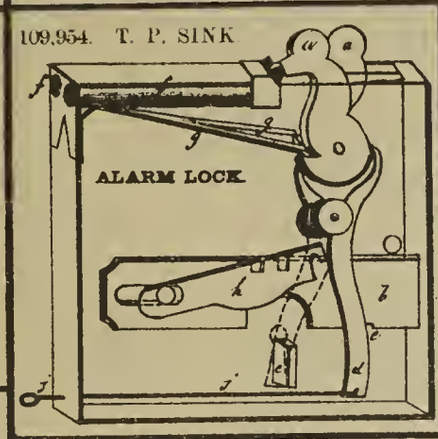
109,952. C. W. SIMONDS POCKET ALARM



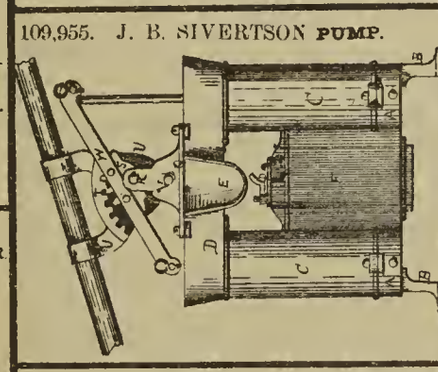
109,953. W. H. SINGER. BEVELING THE EDGES OF CIRCULAR PLATES OF METAL.



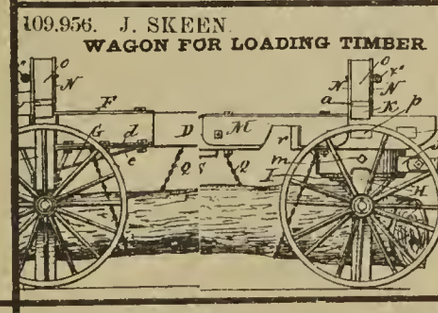
109,954. T. P. SINK ALARM LOCK.



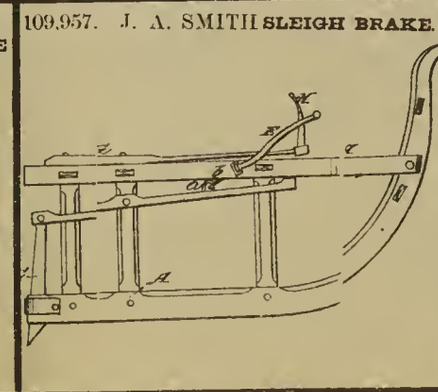
109,955. J. B. SIVERTSON PUMP.



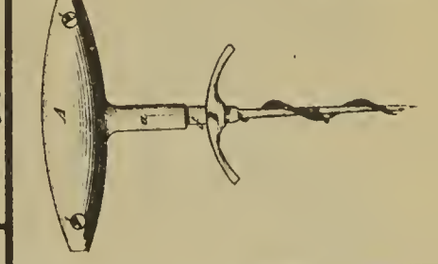
109,956. J. SKEEN. WAGON FOR LOADING TIMBER.



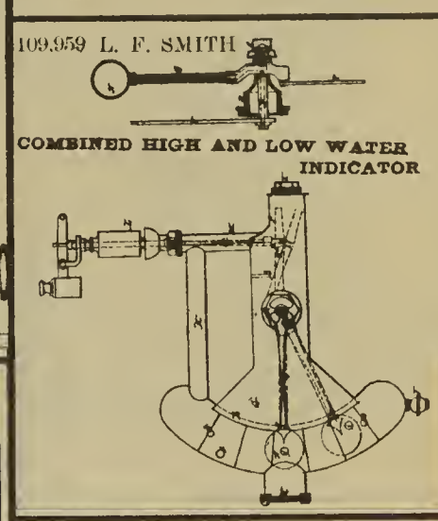
109,957. J. A. SMITH SLEIGH BRAKE.



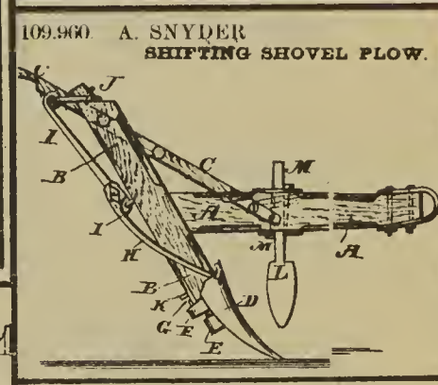
109,958. H. W. SMITH CORK SCREW



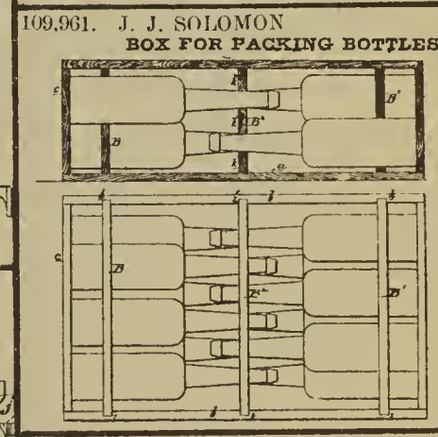
109,959 L. F. SMITH COMBINED HIGH AND LOW WATER INDICATOR



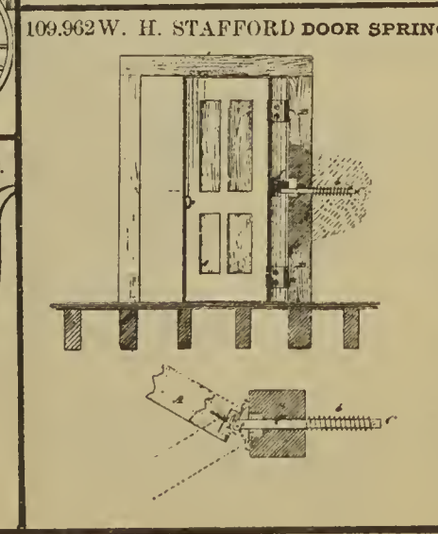
109,960. A. SNYDER SHIFTING SHOVEL PLOW.



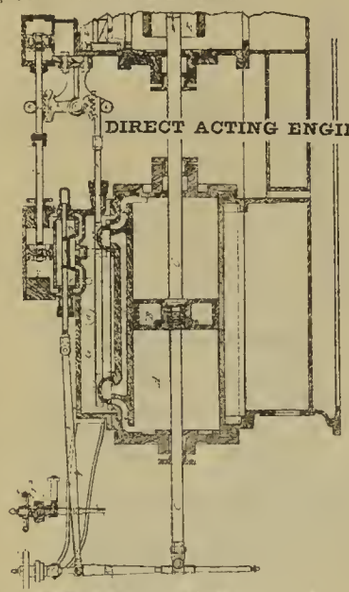
109,961. J. J. SOLOMON BOX FOR PACKING BOTTLES



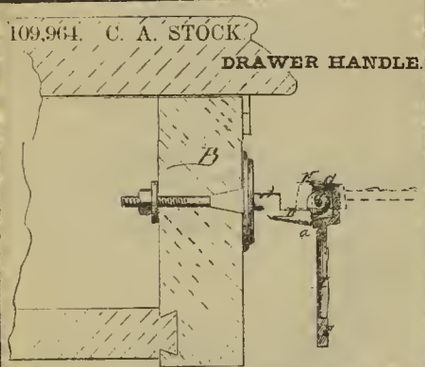
109,962 W. H. STAFFORD DOOR SPRING



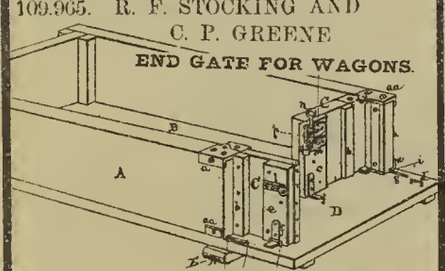
109,963. W. J. STEVENS.
DIRECT ACTING ENGINE.



109,964. C. A. STOCK.
DRAWER HANDLE.

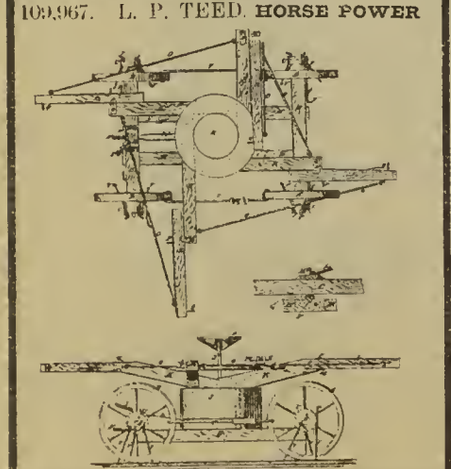


109,965. R. F. STOCKING AND C. P. GREENE
END GATE FOR WAGONS.

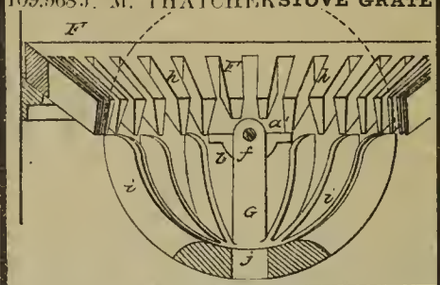


109,966. R. F. STOCKING AND C. P. GREENE.
END GATE FOR WAGONS.

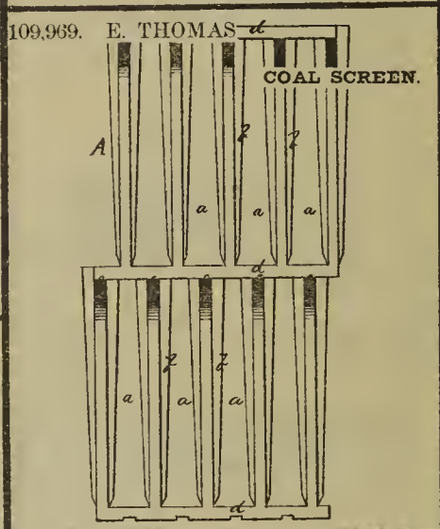
109,967. L. P. TEED. HORSE POWER



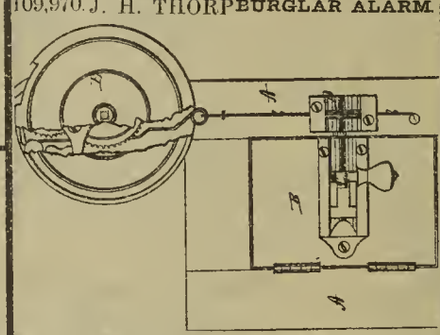
109,968. J. M. THATCHER STOVE GRATE



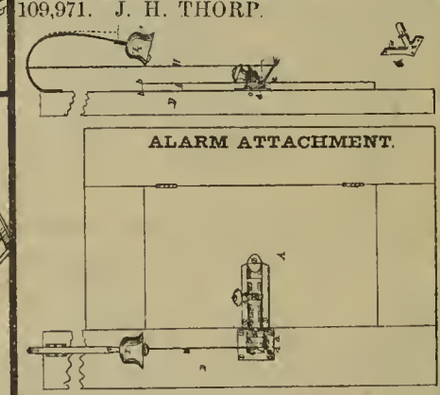
109,969. E. THOMAS
COAL SCREEN.



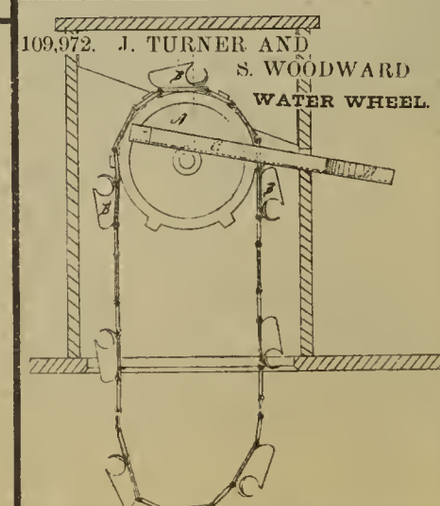
109,970. J. H. THORP BURGLAR ALARM.



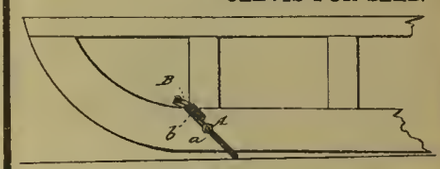
109,971. J. H. THORP.
ALARM ATTACHMENT.



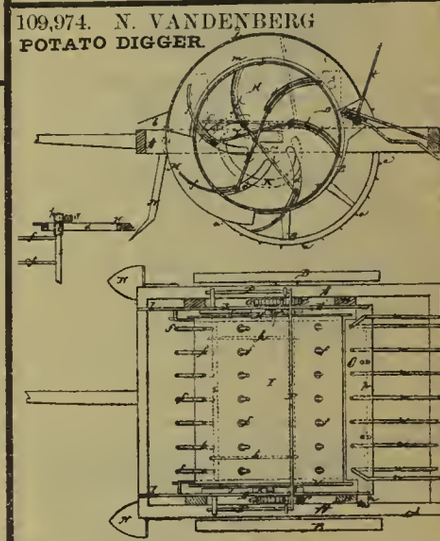
109,972. J. TURNER AND S. WOODWARD
WATER WHEEL.



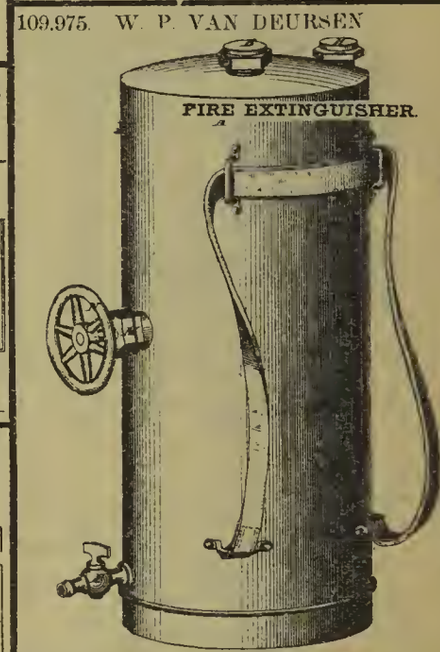
109,973. J. VAN ANTWERP
CLEVIS FOR SLED.



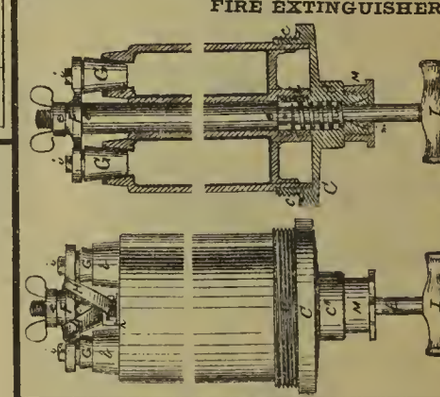
109,974. N. VANDENBERG
POTATO DIGGER.



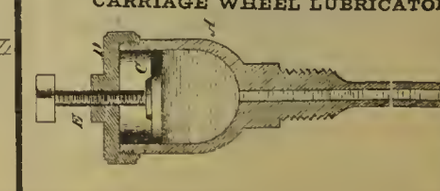
109,975. W. P. VAN DEURSEN
FIRE EXTINGUISHER.



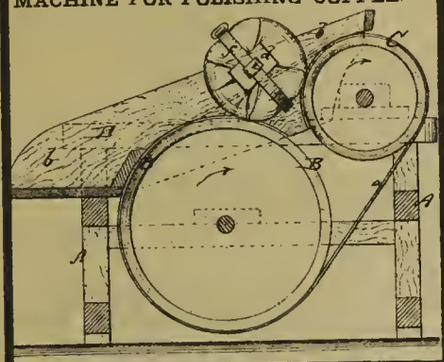
109,976. J. B. VAN DYNE.
FIRE EXTINGUISHER.



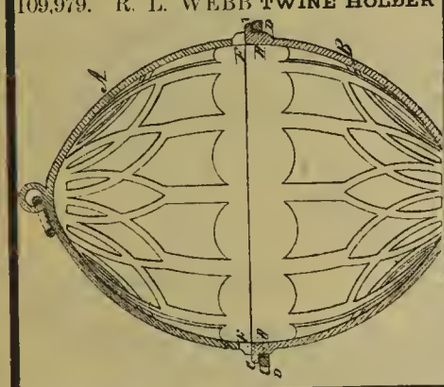
109,977
S. S. VOLLUM AND W. H. GREEN
CARRIAGE WHEEL LUBRICATOR.



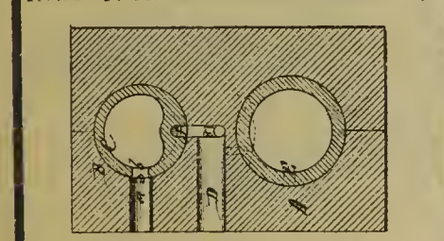
109,978. C. C. WARREN AND J. B. BALDY
MACHINE FOR POLISHING COFFEE.



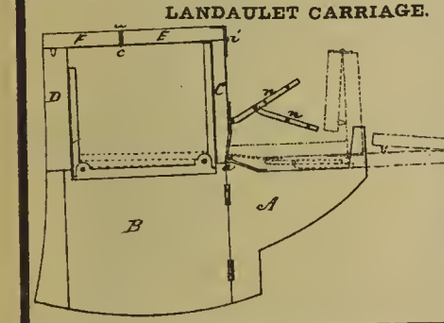
109,979. R. L. WEBB TWINE HOLDER



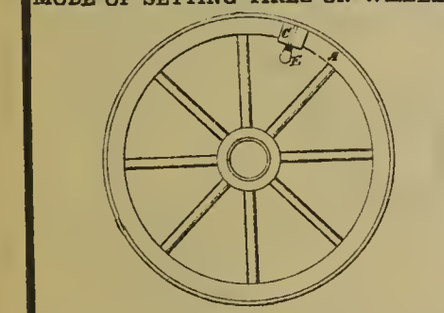
109,980 G. M. WEINMAN STEAM PUMP.



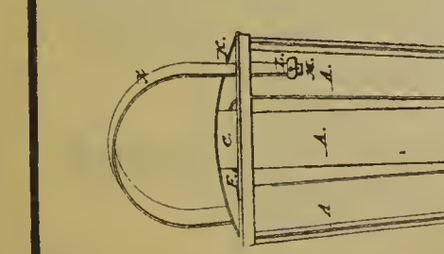
109,981. E. WELLS.
LANDAULET CARRIAGE.



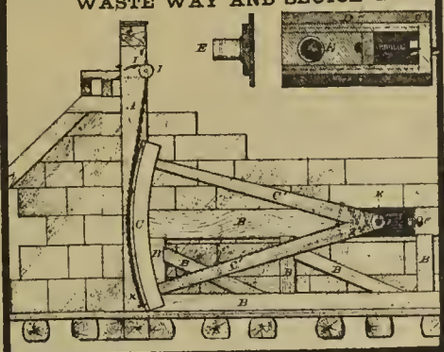
109,982. A. O. WHEELER.
MODE OF SETTING TIRES ON WHEELS



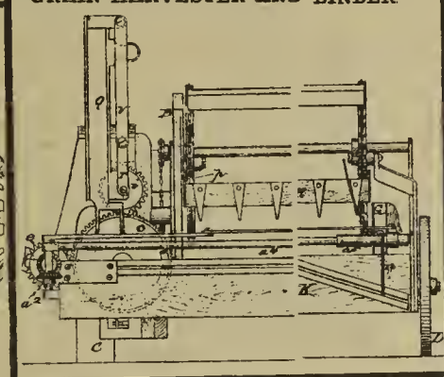
109,983. G. H. WHITE FRUIT BASKET.



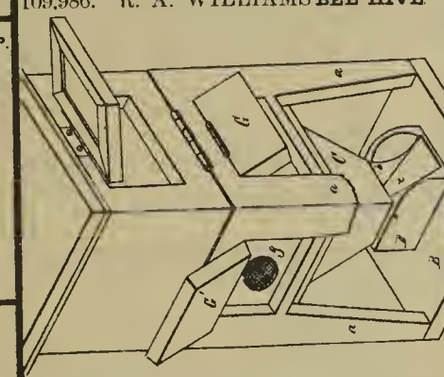
109,984. A. J. WHITNEY CANAL WASTE WAY AND SLUICE GATE



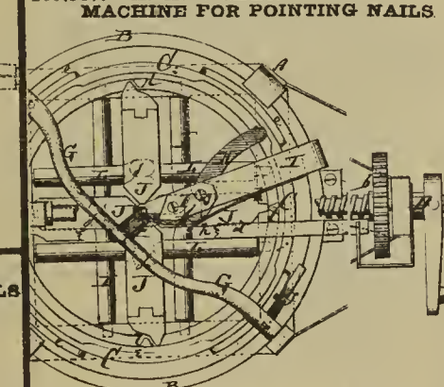
109,985. J. H. WHITNEY COMBINED GRAIN HARVESTER AND BINDER.



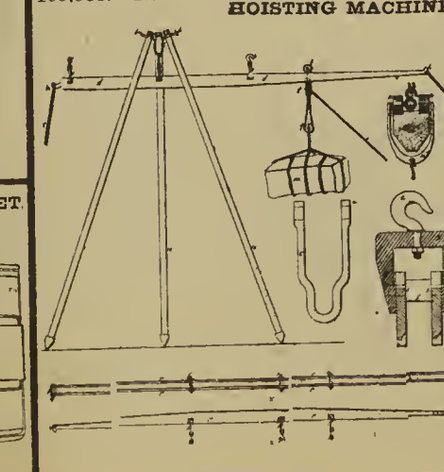
109,986. R. A. WILLIAMS BEE HIVE.



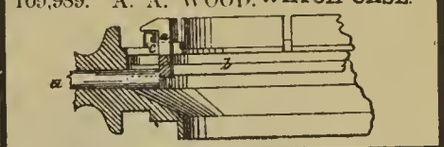
109,987. H. A. WILLS.
MACHINE FOR POINTING NAILS.



109,988. N. WONLARLARSKY
HOISTING MACHINE.

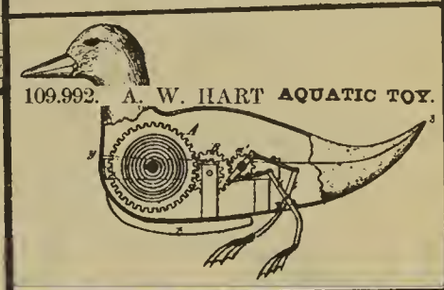


109,989. A. A. WOOD. WATCH CASE.



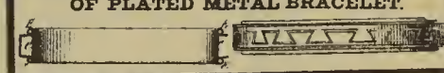
109,990. W. ZINSSER. COMPOUND FOR TREATING MALT LIQUORS.

109,991. C. DELAMAR.
MANUFACTURE OF SUGAR OR SYRUP FROM SWEET POTATOES.

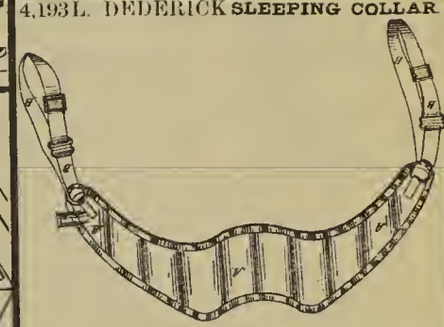


109,992. A. W. HART AQUATIC TOY.

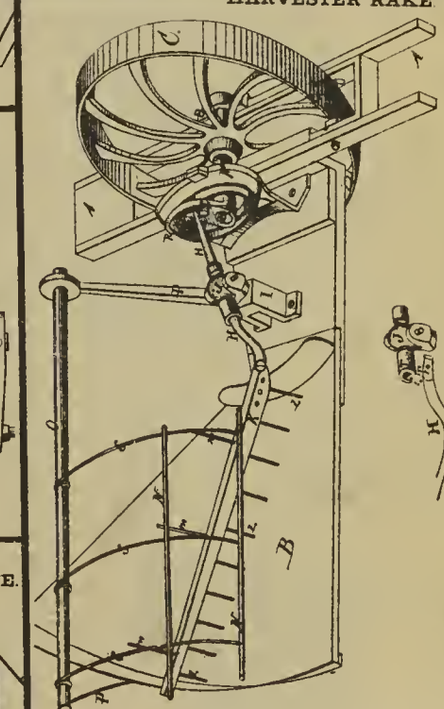
4,192. J. BARCLAY MANUFACTURE OF PLATED METAL BRACELET.



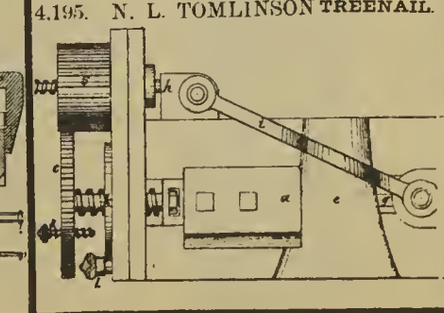
4,193 L. DEDERICK SLEEPING COLLAR.



4,194. H. H. SCOVILLE.
HARVESTER RAKE.



4,195. N. L. TOMLINSON TREENAIL.



ILLUSTRATIONS OF PATENTS

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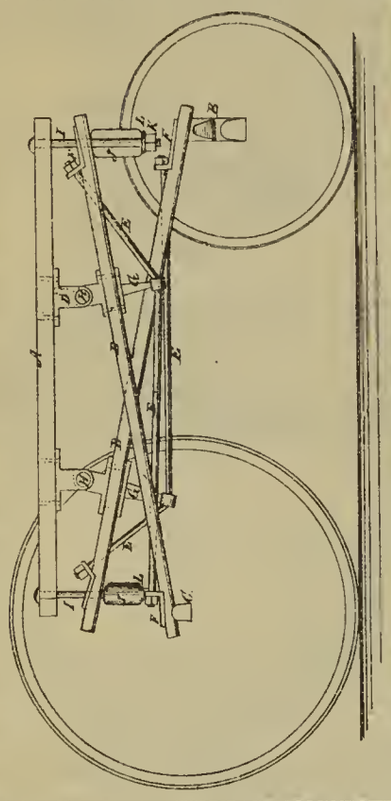
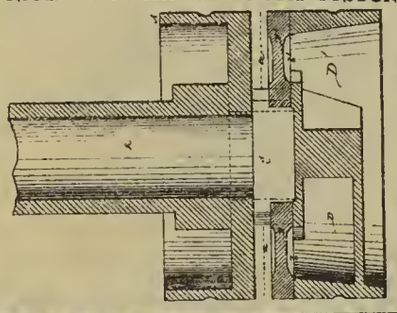
THE UNITED STATES PATENT OFFICE

DECEMBER 13, 1870.

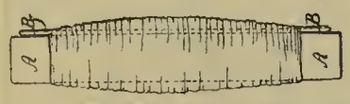
109,993. D. S. ABBOTT CARRIAGE SPRING



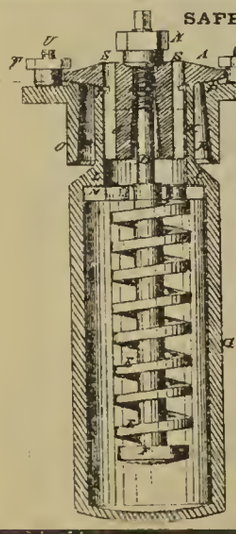
109,994. J. D. ALVORD PUMP PISTON



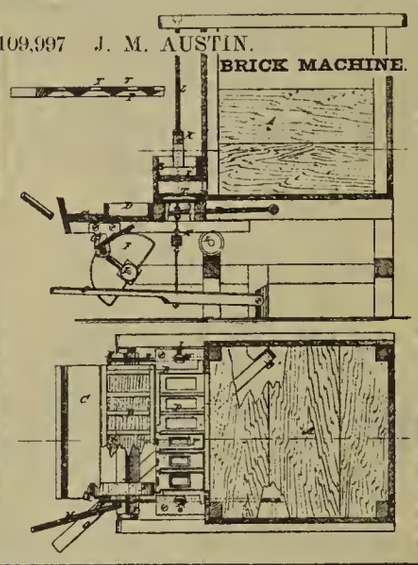
109,995. B. A. ARMSTRONG HOLDER FOR SILK, &c.



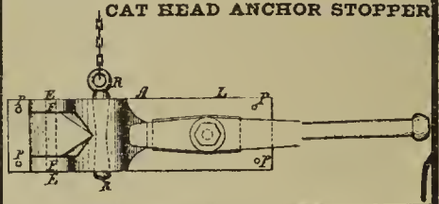
109,996. J. ARMSTRONG SAFETY VALVE.



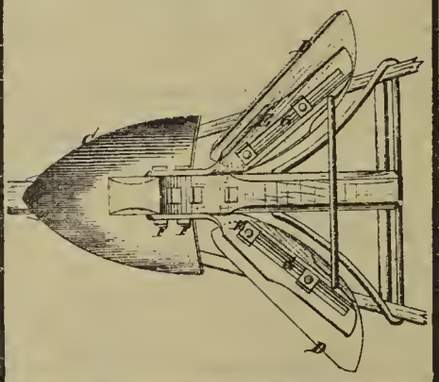
109,997 J. M. AUSTIN. BRICK MACHINE.



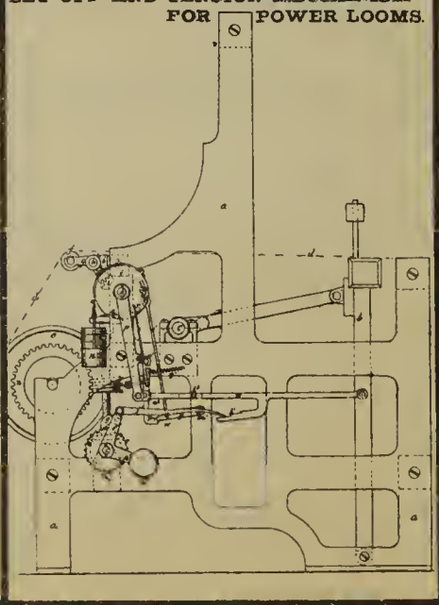
109,998. W. H. BARKER CAT HEAD ANCHOR STOPPER



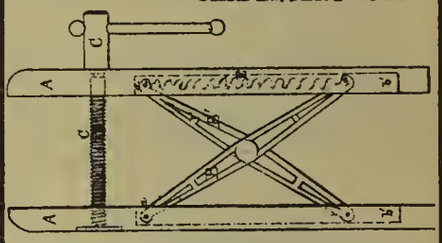
109,999 I. A. BENEDICT SHOVEL PLOW.



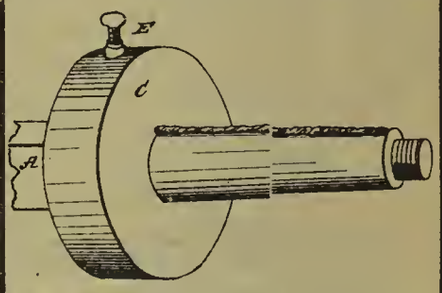
110,000. E. B. BIGELOW LET OFF AND TENSION MECHANISM FOR POWER LOOMS.



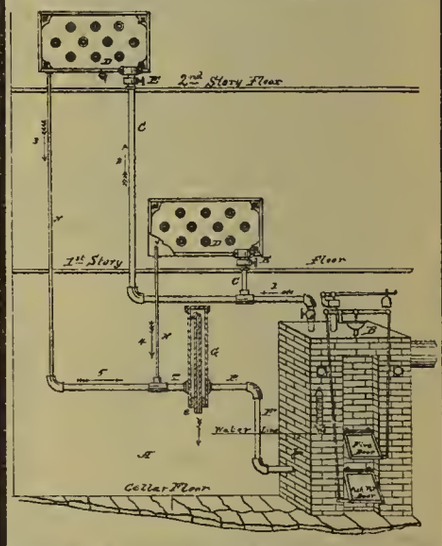
110,001 G. F. BISSELL CARPENTER'S VISE.



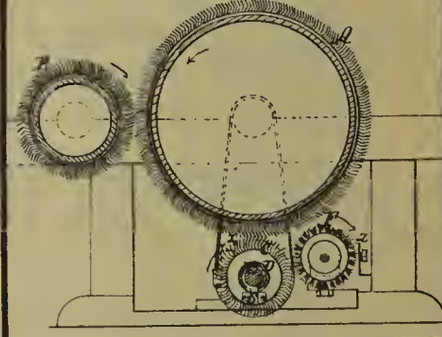
110,002 G. P. BLAISDELL. SELF LUBRICATING AXLE.



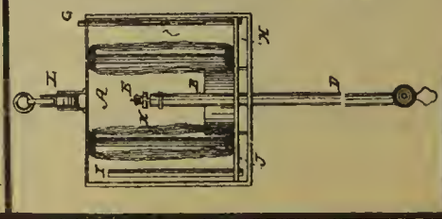
110,003. E. BOURNE. STEAM HEATER.



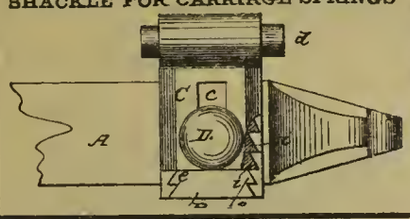
110,004 L. W. BOYNTON CLEANER AND GRINDER, FOR CARDING MACHINES.



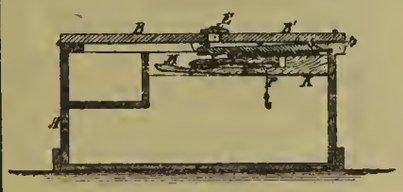
110,005. J. H. BROWN GAS LAMP.



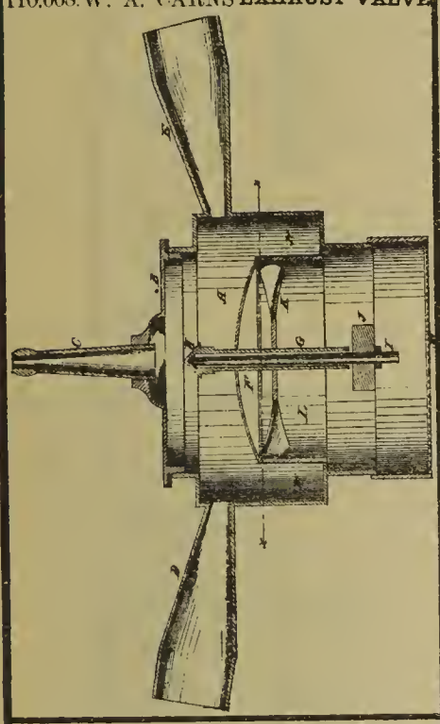
110,006. J. BULLARD ADJUSTABLE SHACKLE FOR CARRIAGE SPRINGS



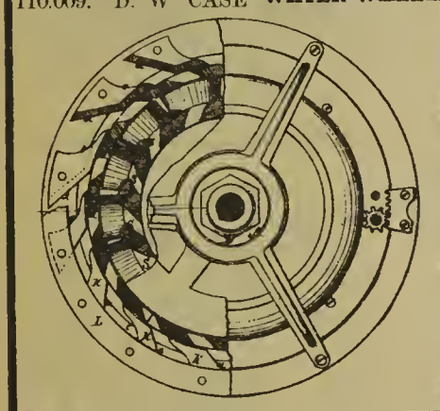
110,007. G. F. CARD. TOOL CHEST.



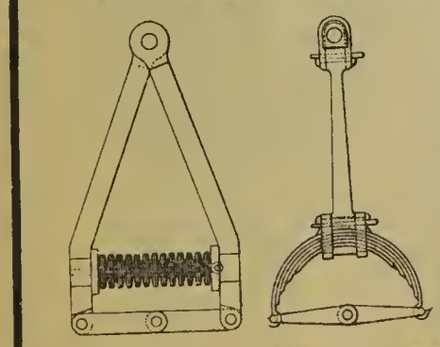
110,008. W. A. CARNS EXHAUST VALVE



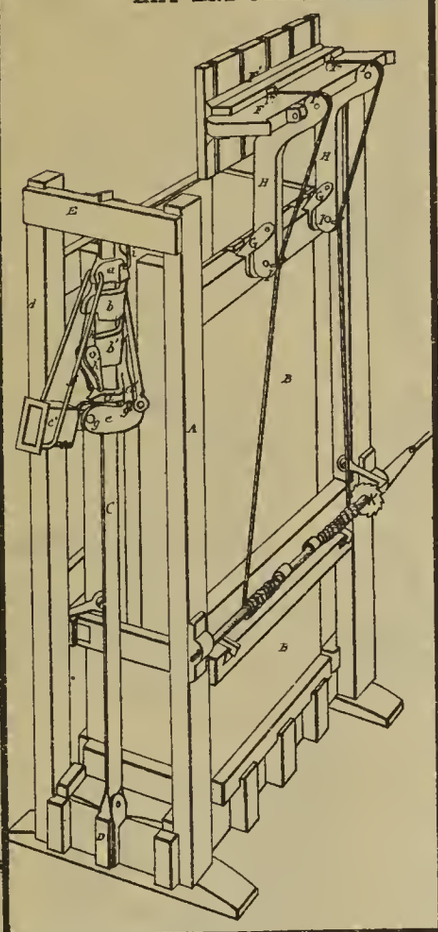
110,009. D. W CASE WATER WHEEL



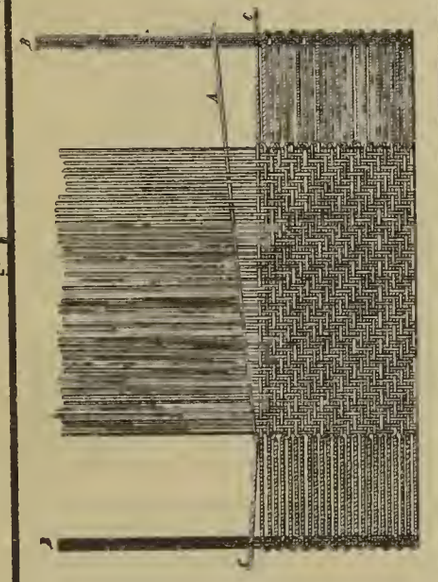
110,010. G. F. CASE STAMPING MILL OR CRUSHER



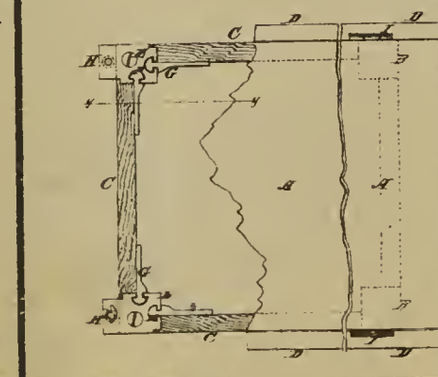
110,011. N. CHAPMAN HAY AND COTTON PRESS.



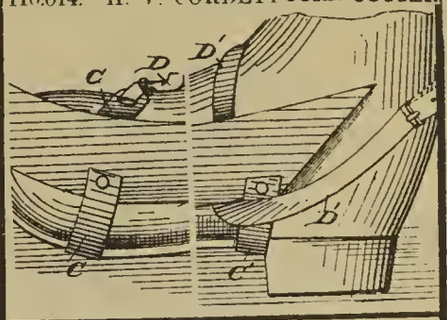
110,012. P COCKER WOVEN FRINGED FABRICS.



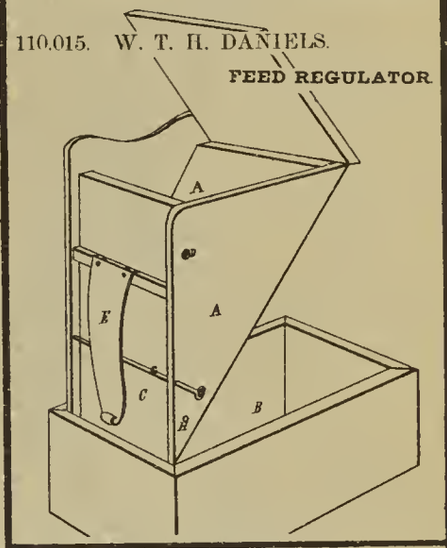
110,013. G. J. CONGLE TABLE.



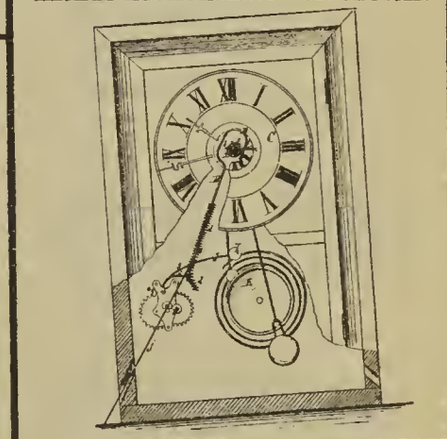
110,014. H. V. CORBETT CORN CUTTER



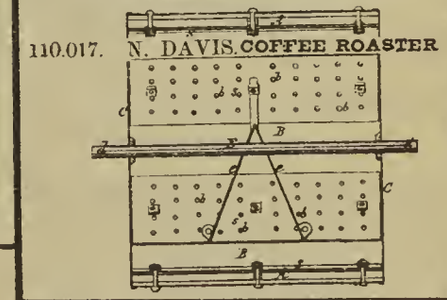
110,015. W. T. H. DANIELS. FEED REGULATOR



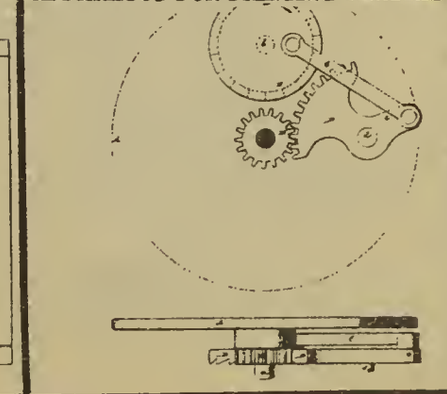
110,016 J. H DAVIS ALARM ATTACHMENT FOR CLOCKS.



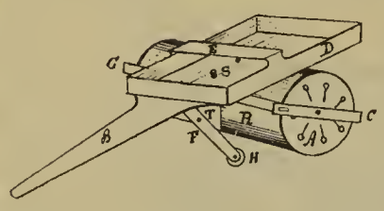
110,017. N. DAVIS. COFFEE ROASTER



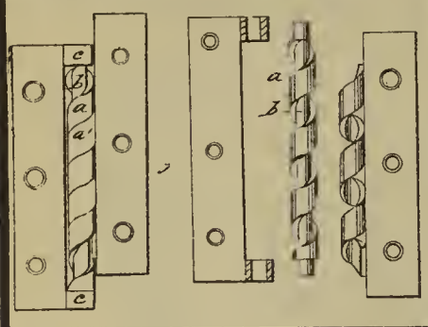
110,018. F. O. DEGENER. INKING APPARATUS FOR PRINTING PRESSES



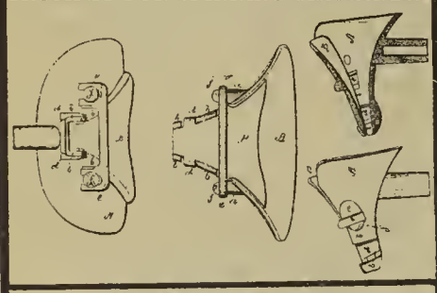
110,019. G. C. DOLPH LAND ROLLER



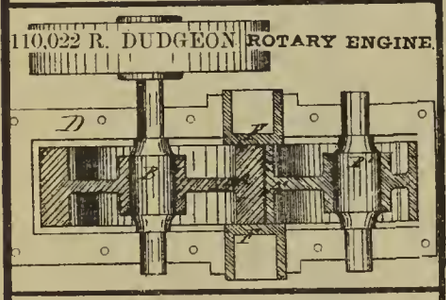
110,020. R. DRAHOTA HINGE.



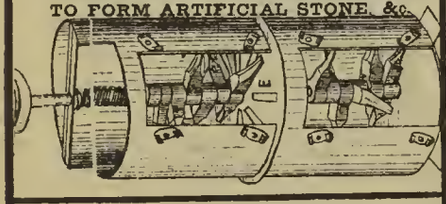
110,021. G. DRAPER. TRUMPET FOR SPINNING MACHINES.



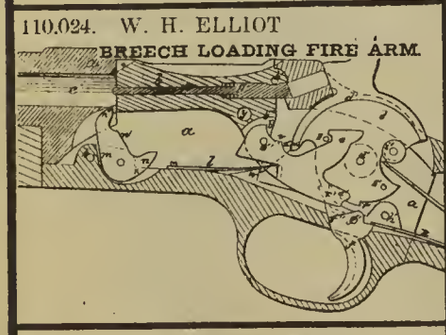
110,022 R. DUDGEON ROTARY ENGINE.



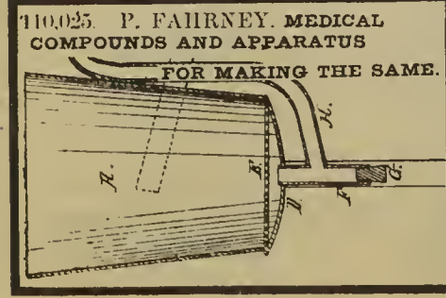
110,023. J. S. ELLIOT MACHINE FOR MIXING THE MATERIALS TO FORM ARTIFICIAL STONE, &c.



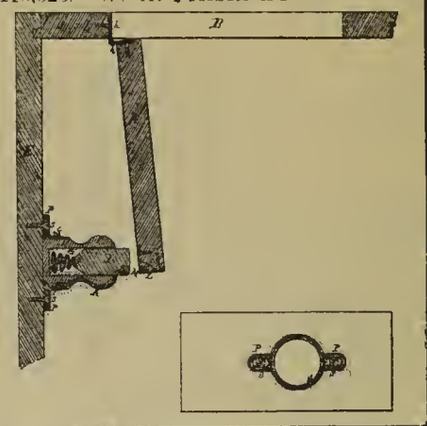
110,024. W. H. ELLIOT BREECH LOADING FIRE ARM.



110,025. P. FAHRNEY. MEDICAL COMPOUNDS AND APPARATUS FOR MAKING THE SAME.

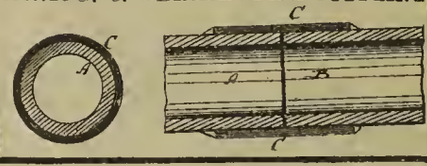


110,026. W. H. FAHRNEY DOOR STOP

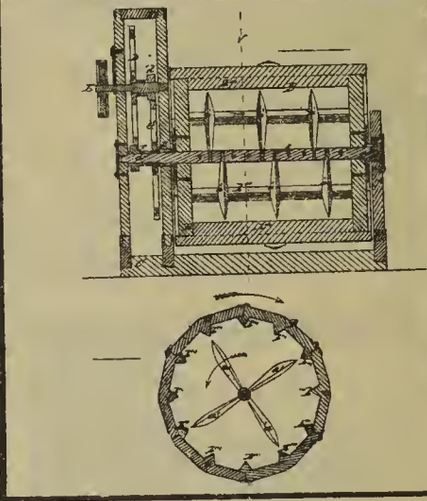


110,027. F. W. GERDES. MANUFACTURE OF PAINTS

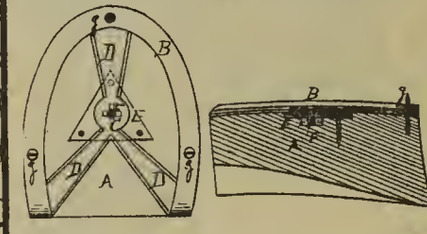
110,028 G. C. GERMAIN PIPE COUPLING



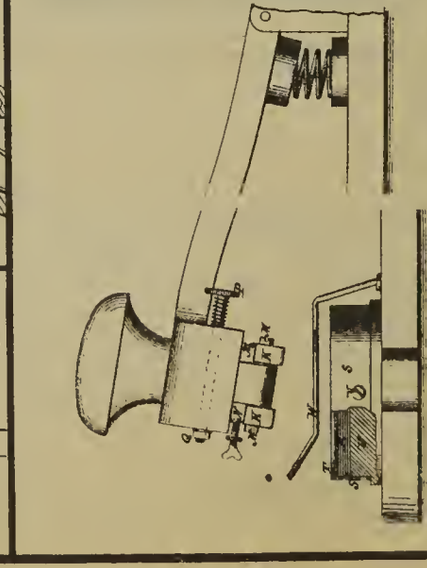
110,029. W. T. GILLINDER. MACHINE FOR MIXING BATCH FOR GLASS.



110,030. B. GIROUX. MODE OF ATTACHING BOOT AND SHOE HEELS.

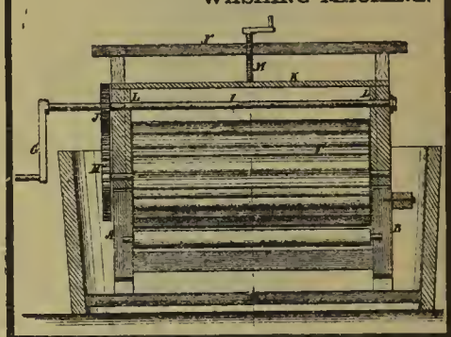


110,031 E. S. GOODMAN HAND STAMP.

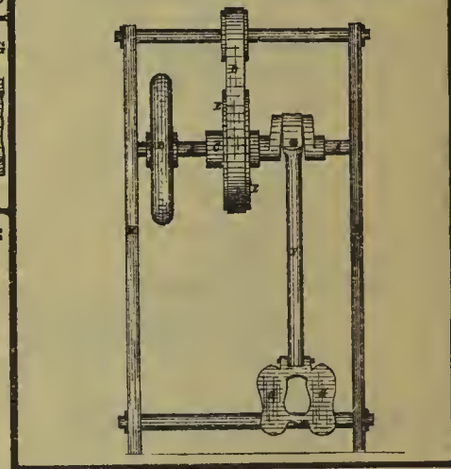


110,032. J. GORMAN. TYMPAN SHEET FOR PRINTING PRESSES

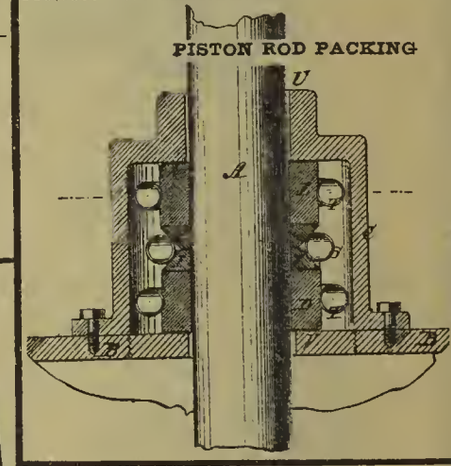
110,033. D. C. HARLOW WASHING MACHINE.



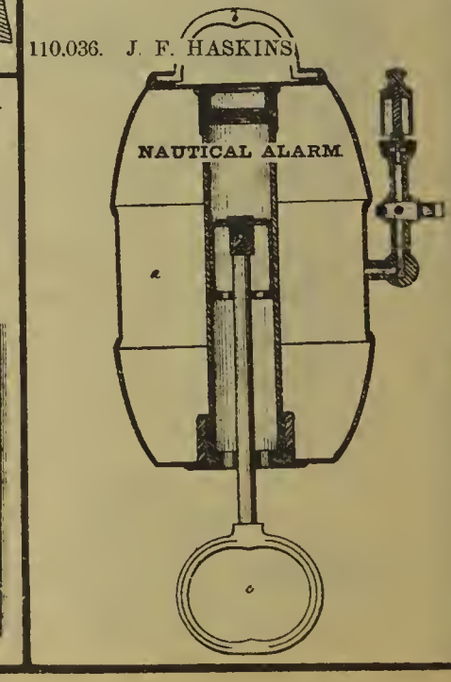
110,034. A. W. HARRIS. DEVICE FOR DRIVING SEWING MACHINES.



110,035. W. HARTLEY. PISTON ROD PACKING

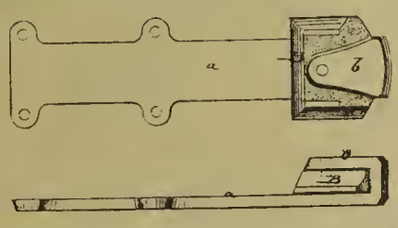


110,036. J. F. HASKINS NAUTICAL ALARM.

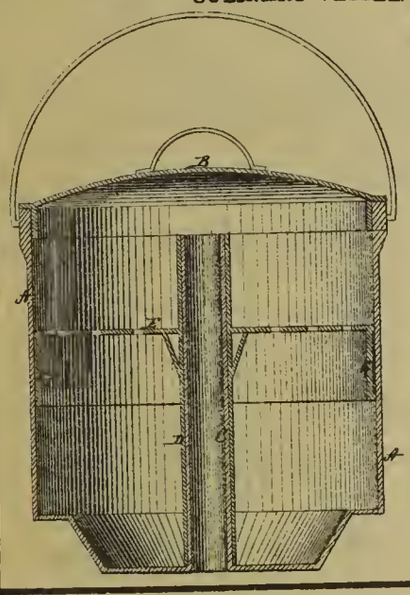


110,037. C. H. HELMS.
MODE OF ATTACHING COMPOSITION HEELS TO BOOTS AND SHOES.

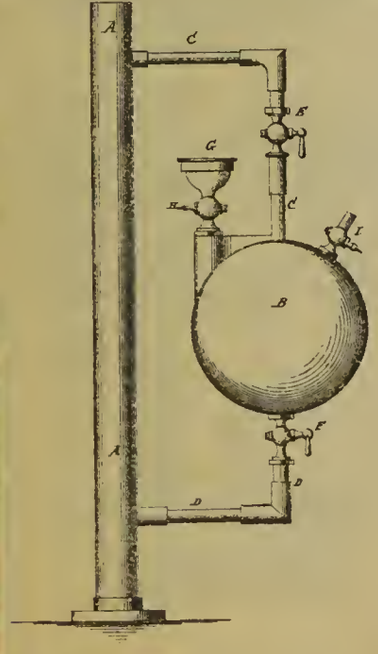
110,038. J. HERALD
CORE FOR CASTINGS.



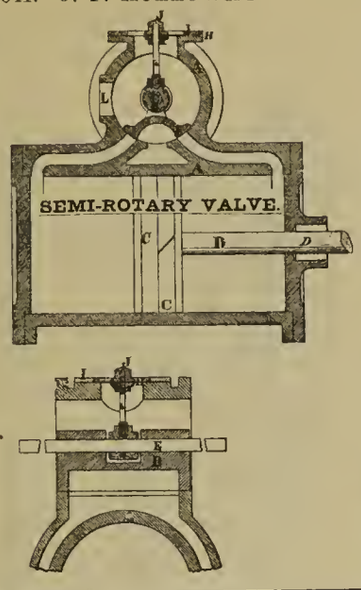
110,039. R. M. HERMANCE
CULINARY VESSEL.



110,040. M. HINMAN LUBRICATOR.

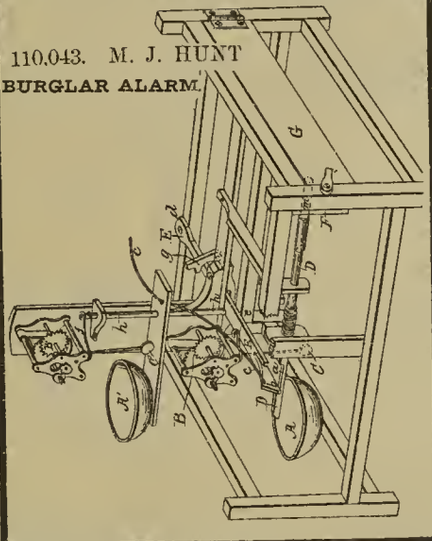


110,041. J. F. HOLLOWAY
SEMI-ROTARY VALVE.



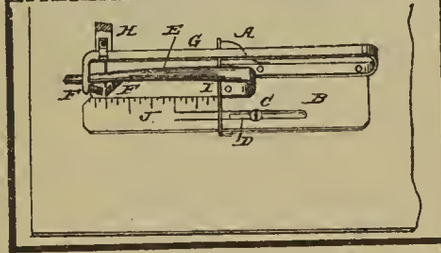
110,042. D. HULL. REFINING AND DECOLORIZING SIRUP AND OTHER LIQUIDS, AND MATERIAL FOR THE SAME.

110,043. M. J. HUNT
BURGLAR ALARM.

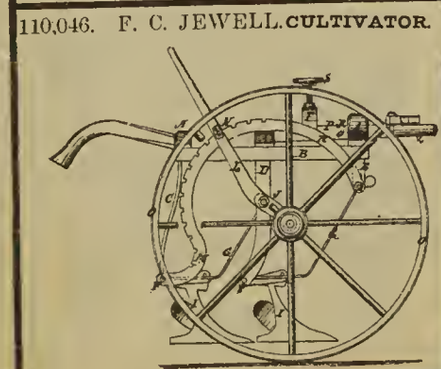


110,044. R. C. HUSSEY
STEAM JET BOILER TUBE CLEANER.

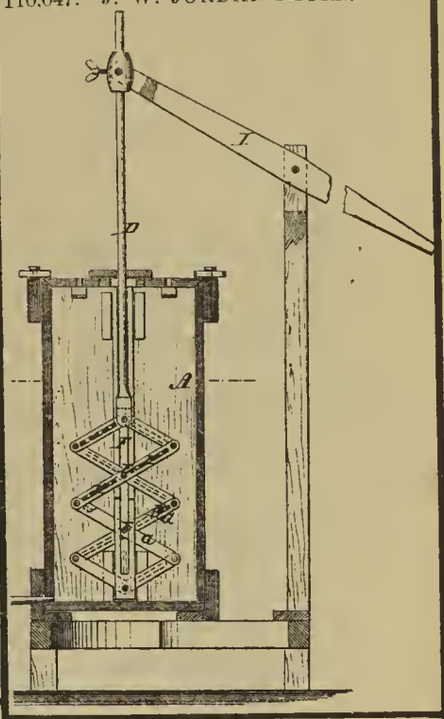
110,045. J. C. JENSEN TUCK CREASING ATTACHMENT FORSEWING MACHINES.



110,046. F. C. JEWELL. CULTIVATOR.

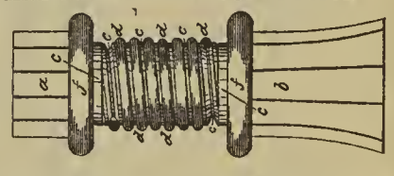


110,047. J. W. JORDAN CHURN.

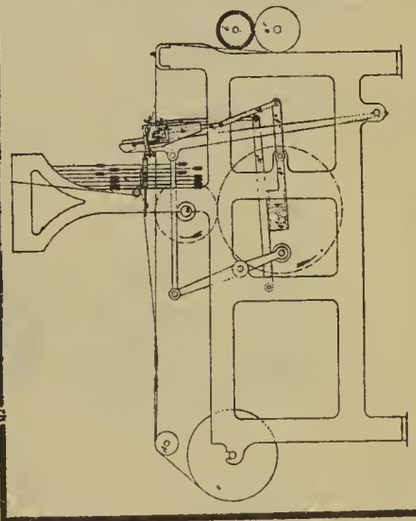


110,048. J. KIRCHER PRINTING INK.

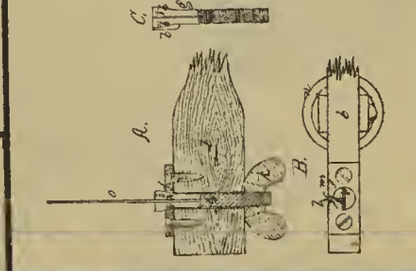
110,049. C. L. KNECHT GLASSWARE AND METAL STEM CONNECTION.



110,050. W. S. LAYCOCK LOOM.

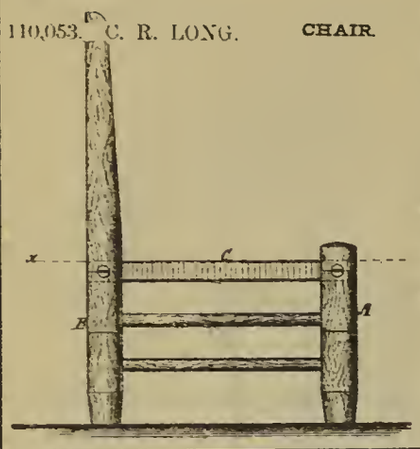


110,051. T. L. EVERITT BUHL SAW.



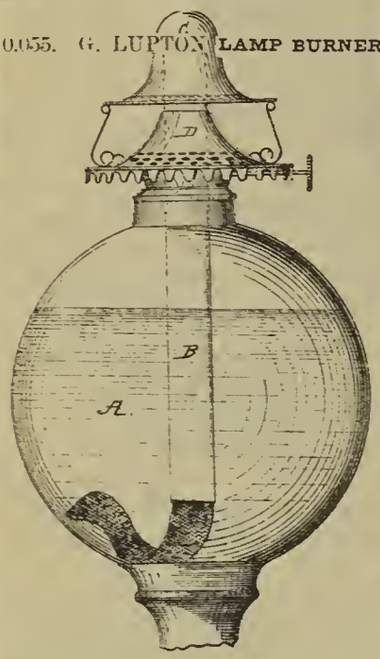
110,052
J. LOGAN AND D. W. ELDRIDGE
CARTRIDGE CAP EXTRACTOR.

110,053. C. R. LONG. CHAIR.

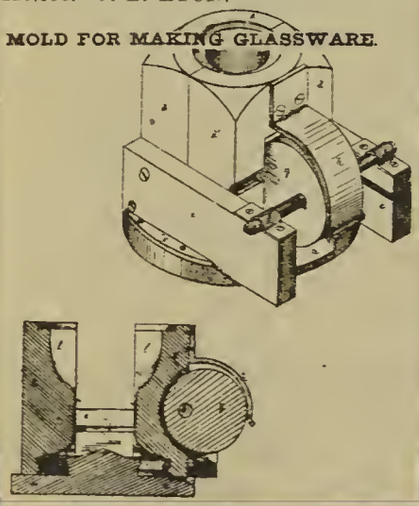


110,054. G. LUPTON. PURIFYING BENZINE.

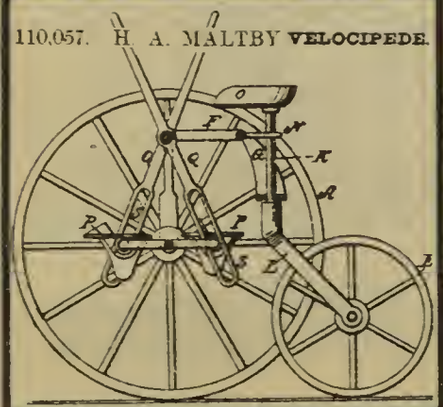
110,055. G. LUPTON. LAMP BURNER.



110,056. J. B. LYON. MOLD FOR MAKING GLASSWARE.

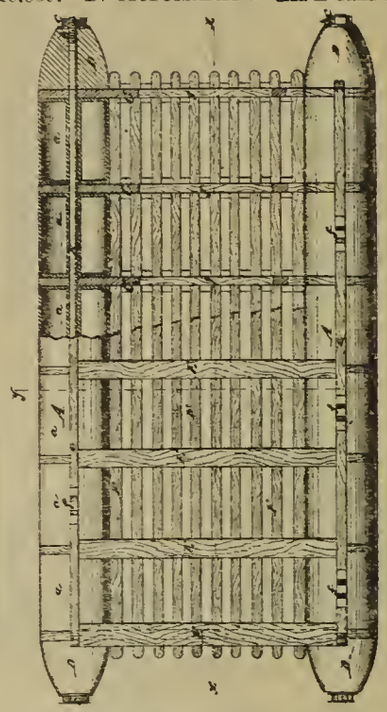


110,057. H. A. MALTBY. VELOCIPEDE.

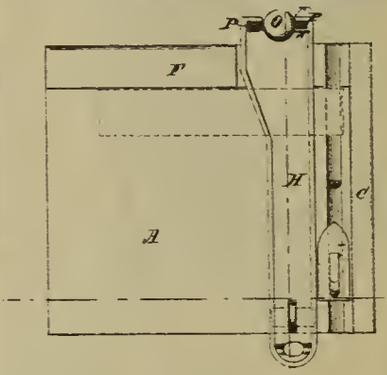


110,058. A. C. MAXFIELD. HAIR RESTORATIVE.

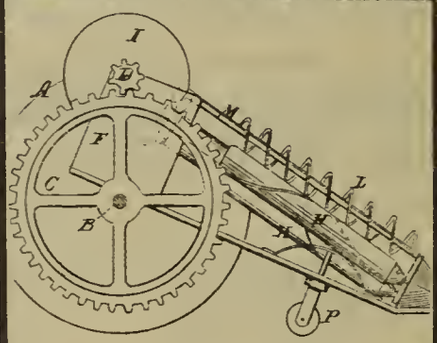
110,059. D. McFARLAND. LIFE RAFT.



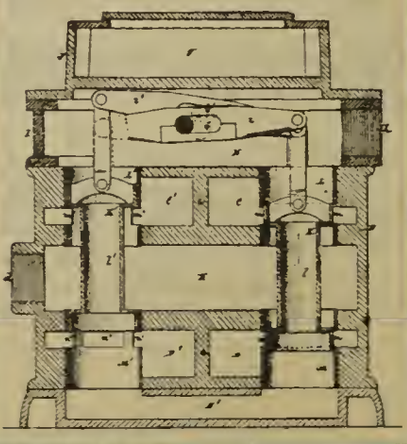
110,060. J. C. McLAREN. BELT SPLICE POINT FINISHER.



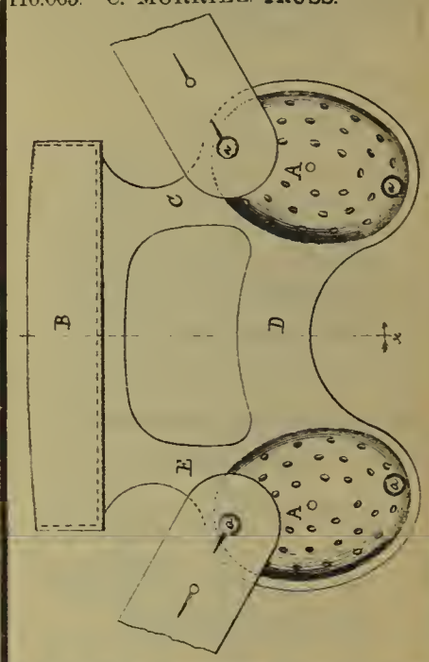
110,061. G. AND C. MEADER. FIELD CORN PICKING AND HUSKINGMACHINE.



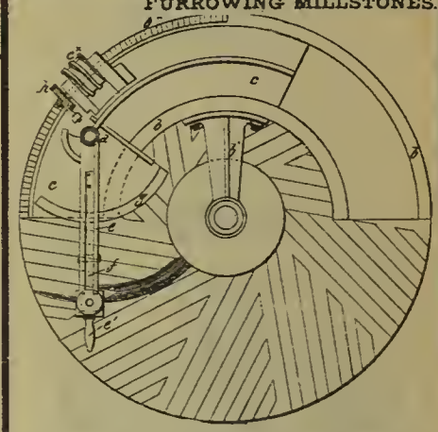
110,062. C. MOORE. LIQUID METER.



110,063. C. MORRILL. TRUSS.

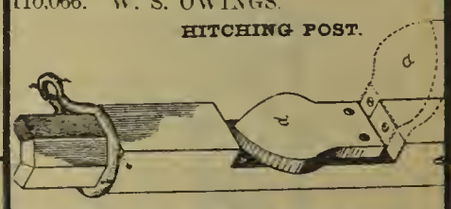


110,064. J. L. NORTON. APPARATUS FOR DRESSING AND FURROWING MILLSTONES.

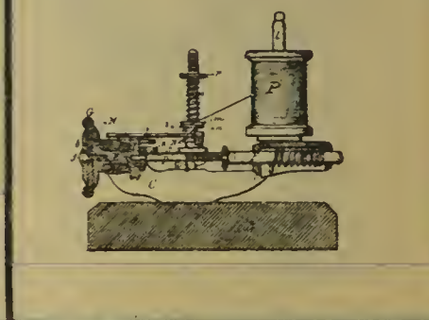


110,065. E. OLIVER. ANIMAL TRAP.

110,066. W. S. OWINGS. HITCHING POST.

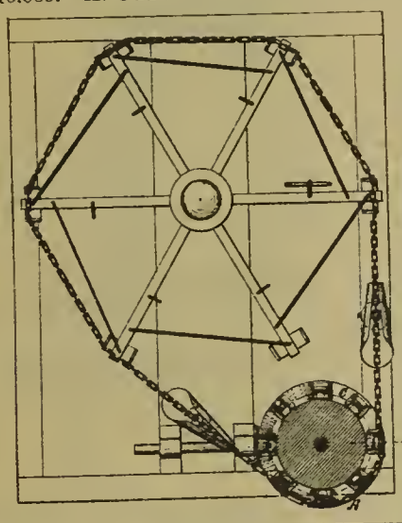


110,067. J. L. PATCH. BOBBIN WINDER FOR SEWING MACHINES.

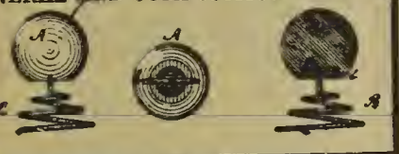


110.068. C. PHELPS
ELASTIC MANE TURNER.

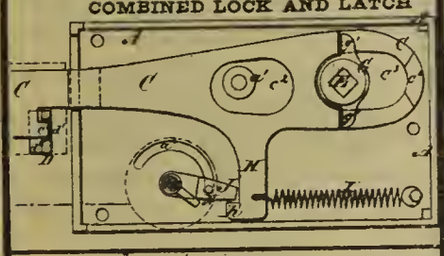
110.069. H. PITCHER CHAIN CLUTCH.



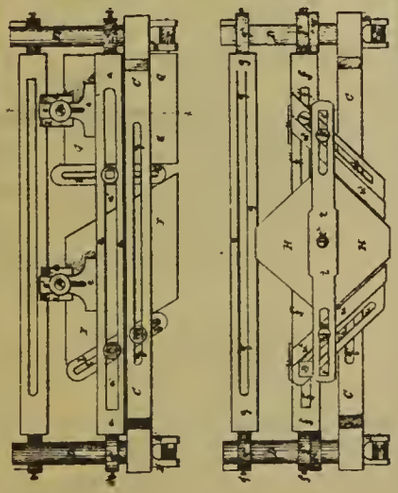
110.070. C. L. POTTER DEVICE
FOR ATTACHING THE SHANK TO
MINERAL AND COMPOSITION BUTTONS.



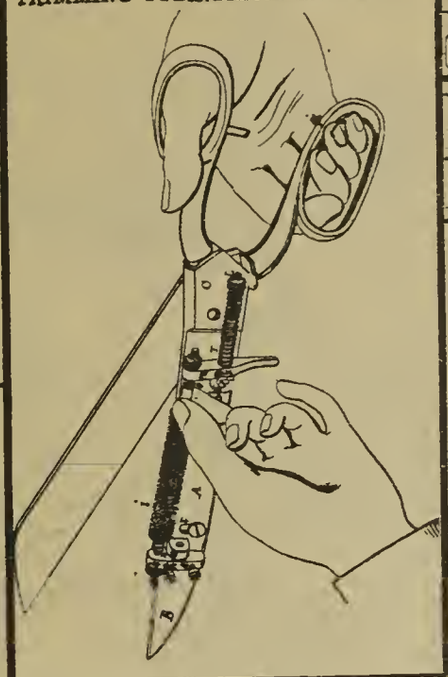
110.071 F. M. RANOUS
COMBINED LOCK AND LATCH



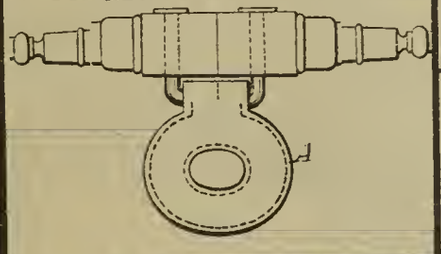
110.072. P. C. RENIERS
BASKET FOR TILE GRINDERS.



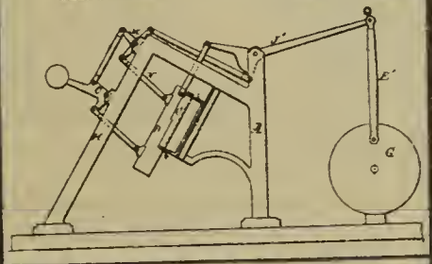
110.073. A. G. RISLEY DEVICE FOR
TRIMMING CYLINDRICAL BRUSHES.



110.074. H. SANDERS LEATHER
FOR NECK YOKE FOR CARRIAGES.

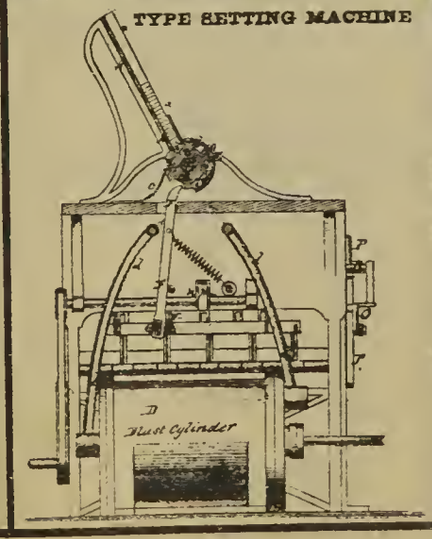


110.075 E. O. SCHARTAN
MACHINE FOR CUTTING CORKS.

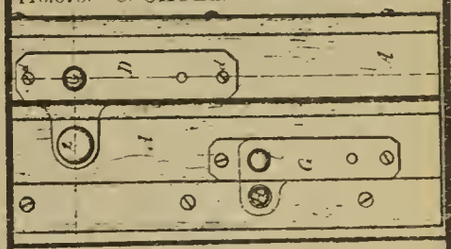


110.076. E. O. SCHARTAN
CORK MACHINE

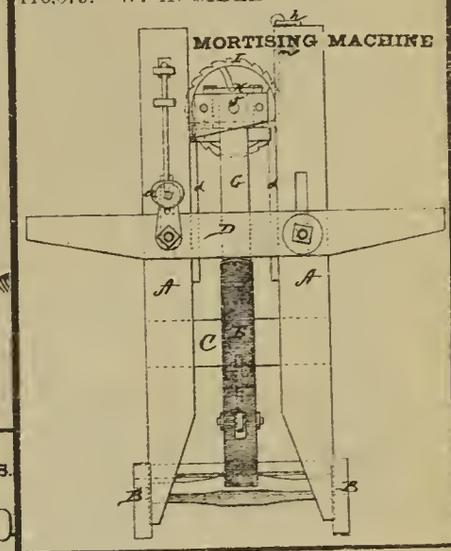
110.077. W. S. SHIPLEY
TYPE SETTING MACHINE



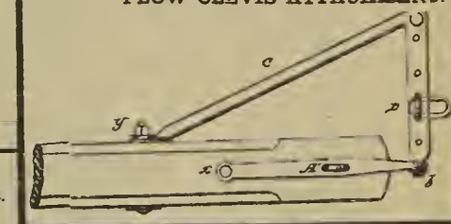
110.078. C. SHOLL. SASH LOCK.



110.079. W. H. SIBLE
MORTISING MACHINE

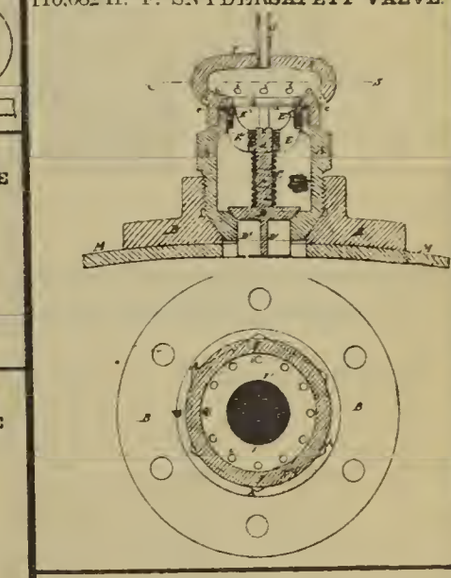


110.080. H. C. SIEVERLING
PLOW CLEVIS ATTACHMENT.

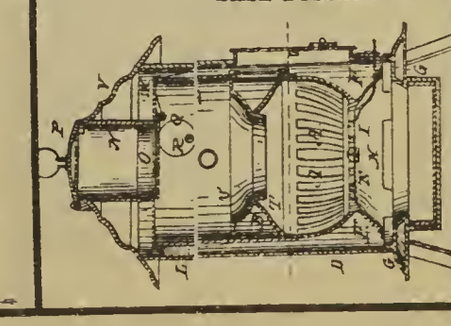


110.081. M. SMITH PROCESS
OF REMOVING EARTHY MATTER
FROM BRONZE AND OTHER CASTINGS

110.082 H. F. SNYDER SAFETY VALVE.

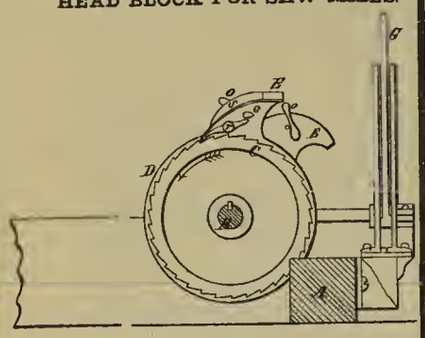


110.0831. SNYDER AND P. C. GARRETT
BASE BURNING STOVE.

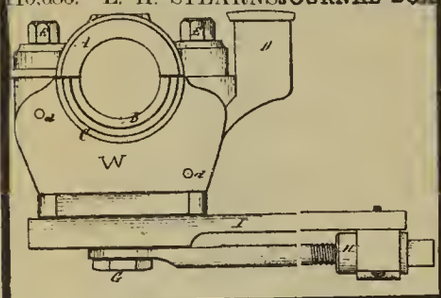


110,084. P. SPENCE. MANUFACTURE OF ALUM AND FERTILIZER FROM MINERAL PHOSPHATES.

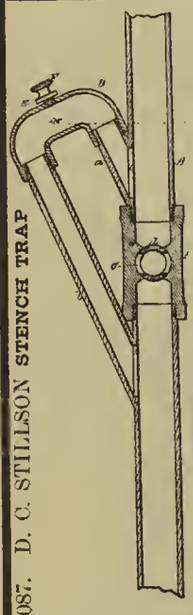
110,085. F. J. STALEY
HEAD BLOCK FOR SAW MILLS.



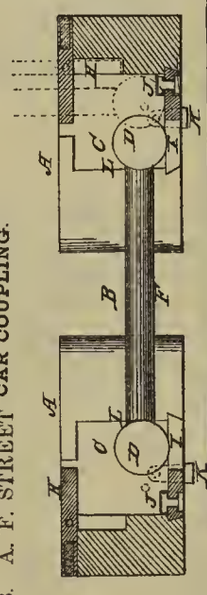
110,086. E. H. STEARNS JOURNAL BOX



110,087. D. C. STILLSON STENCH TRAP

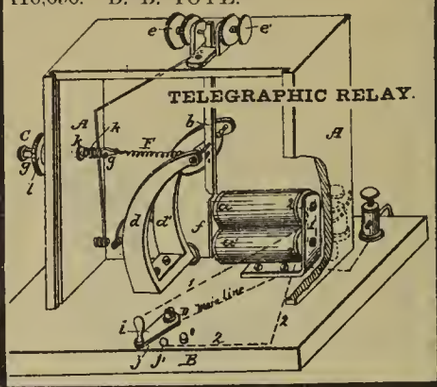


110,088. A. F. STREET CAR COUPLING.



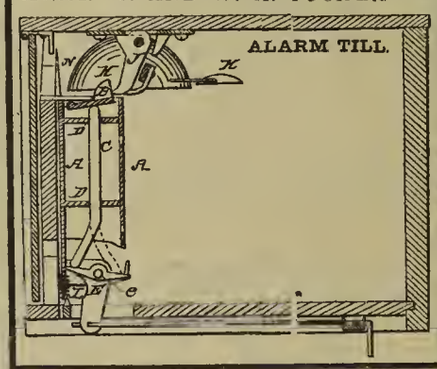
110,089. J. A. THOMPSON
METHOD OF UNITING WOOD

110,090. B. B. TOYE.
TELEGRAPHIC RELAY.

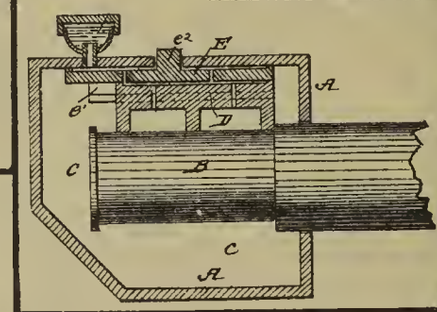


110,091. C. H. TRUMBULL
TREE PROTECTOR.

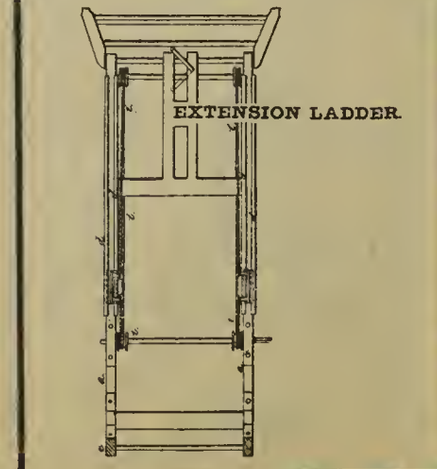
110,092. C. AND W. H. TUCKER
ALARM TILL.



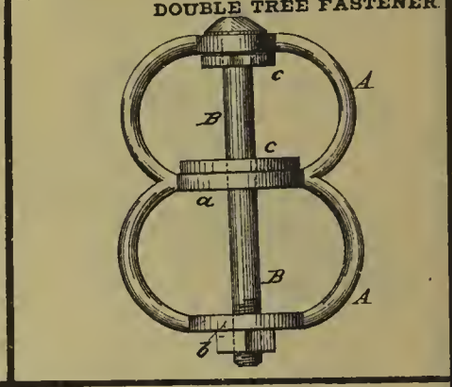
110,093 J. WARDROBE, C. D. B. FISK J. F. CURTIS, AND G. FETLEY.
RAILWAY AXLE BOX.



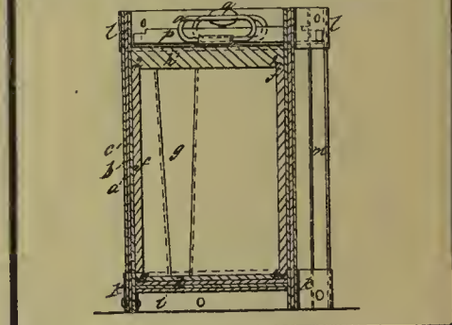
110,094. T. WATSON AND C. PERRY
EXTENSION LADDER.



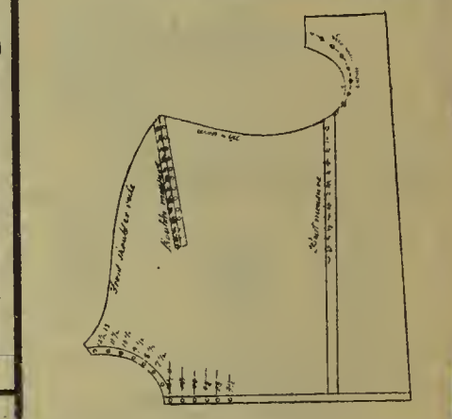
110,095. D. WERST.
DOUBLE TREE FASTENER.



110,096. J. W. WESTON BARREL.

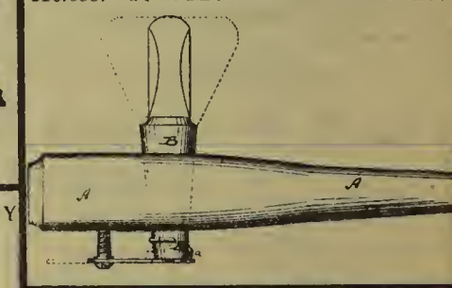


110,097. F. WETMORE
PATTERN FOR MEASURING AND LAYING-OUT GARMENTS

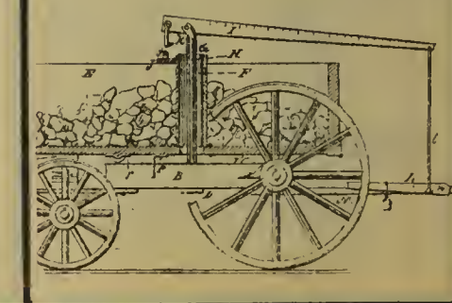


110,098. L. H. WHITNEY
ROLLER SHAFT FOR WRINGERS.

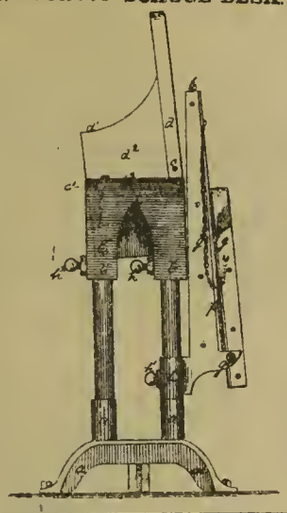
110,099. F. WIESENHOFER. FAUCET.



110,100. G. A. WILCOX
WEIGHING WAGON.

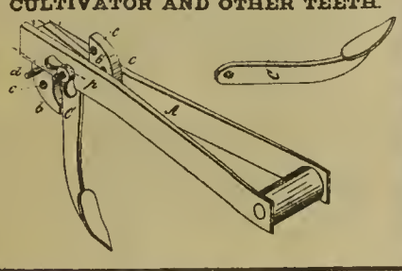


110,101. E. WILSON SCHOOL DESK.

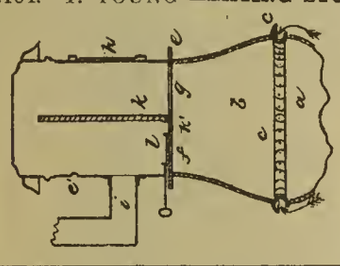


110,102. J. F. WOOD.
MANUFACTURE OF EMERY WHEELS.

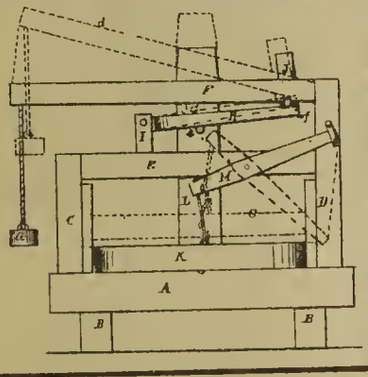
110,103. W. WORKMAN AND J. HITCHCOCK
FRICTION BLOCK FOR ATTACHING CULTIVATOR AND OTHER TEETH.



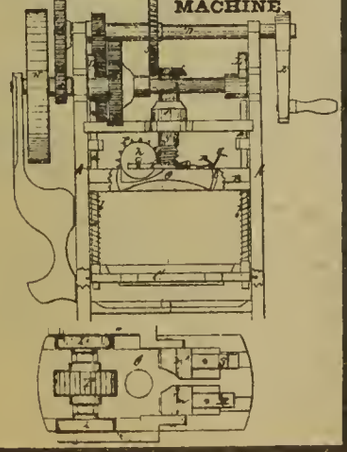
110,104. T. YOUNG HEATING STOVE.



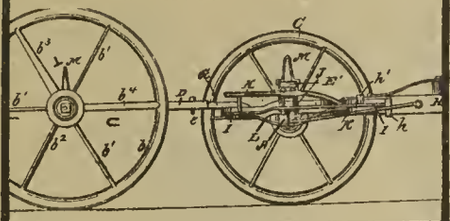
110,105. R. ALLEN. CHEESE PRESS.



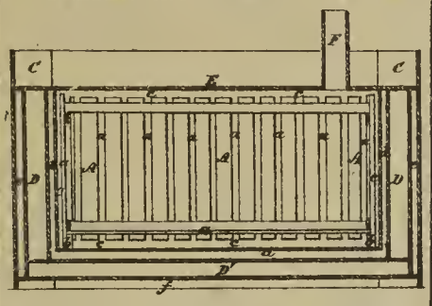
110,106 T. M. ANNIS AND T. B. LUCE
BARREL CHAMFERING AND CROZING MACHINE.



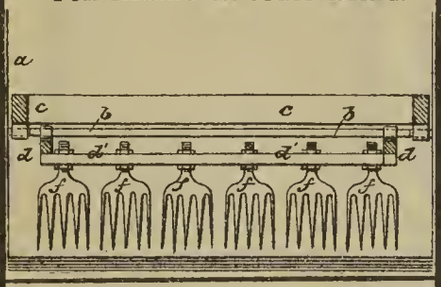
110,107. E. BALL, JR. WAGON.



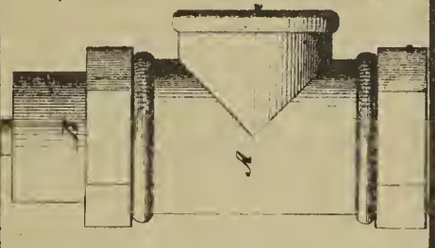
110,108. H. T BASYE.
PRESERVING SWEET POTATOES.



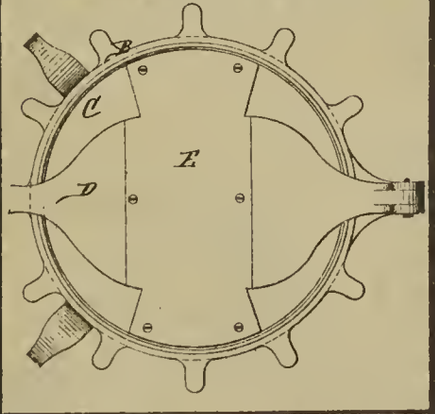
110,109. H. BELMONT. MACHINE FOR TILLING OR CULTIVATING.



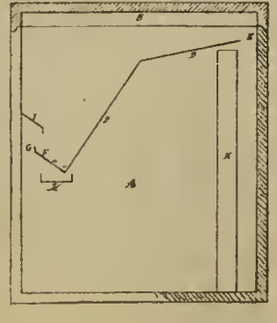
110,110. A. J. BLAKSLEE AND G. C. WILLIAMS STEAM JET PUMP.



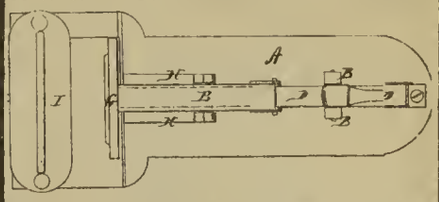
110,111. G. E. BRINGMAN
MEAT AND VEGETABLE CUTTER.



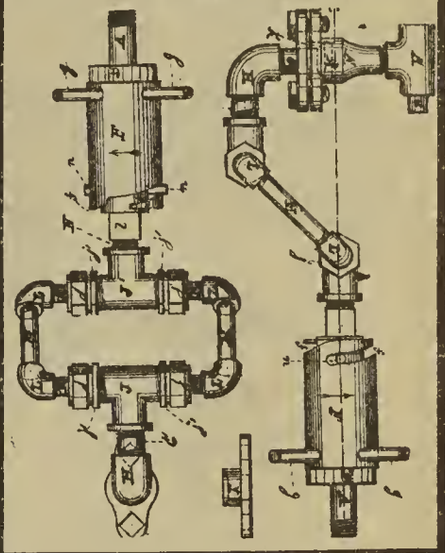
110,112. A. J. CHASE. REFRIGERATOR



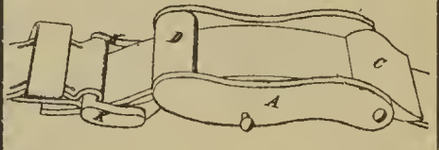
110,113. J. F. CLARK BRICK PRESS.



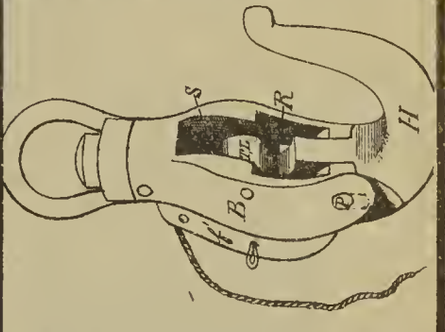
110,114. J. CONNER STEAM PIPE COUPLING FOR RAILROAD CARS.



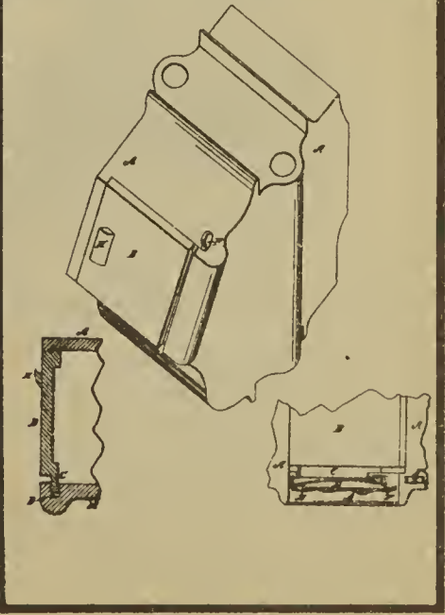
110,115. E. P. CORWIN BUCKLE.



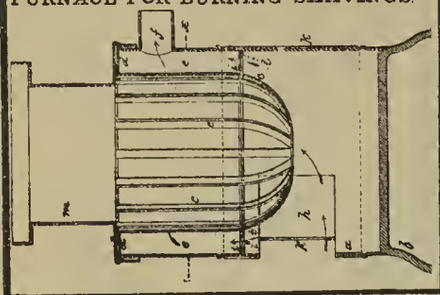
110,116. J. C. COTTINGHAM
BOAT DETACHING APPARATUS.



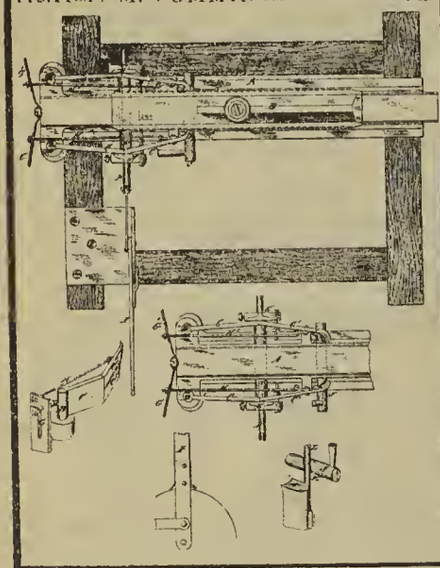
110,117. D. COWLEY.
CAR AXLE BOX COVER



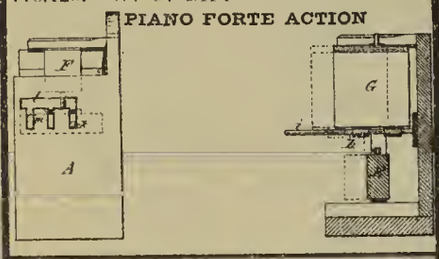
110,118. L. CRANDALL. FURNACE FOR BURNING SHAVINGS.



110,119. P. M. CUMMINGS. HEAD BLOCK.

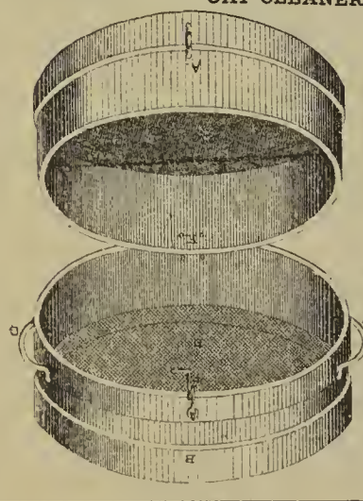


110,120. W. G. DAY. PIANO FORTE ACTION.

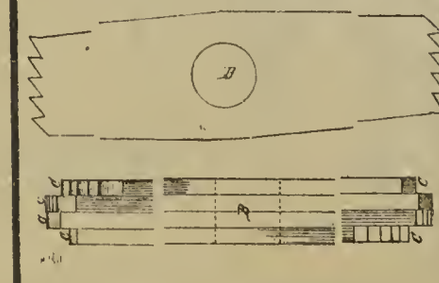


110,121. E. J. DESMEDT. ASPHALT ROAD AND PAVEMENT.

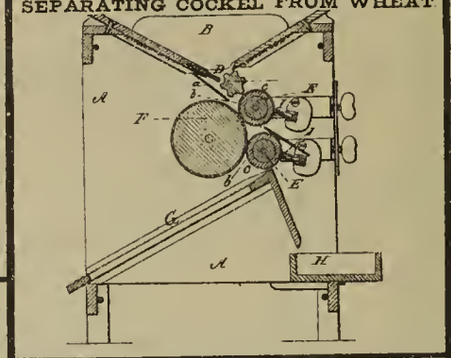
110,122. S. DICKENS, JR. OAT CLEANER.



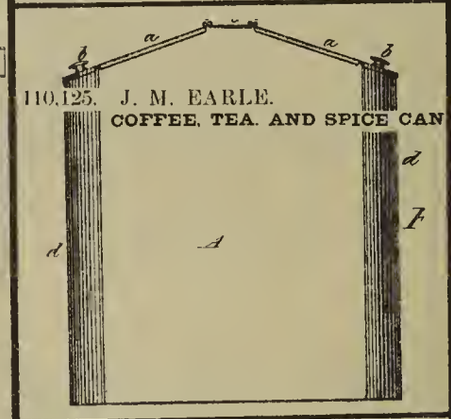
110,123. J. DILL. GROOVING TOOL.



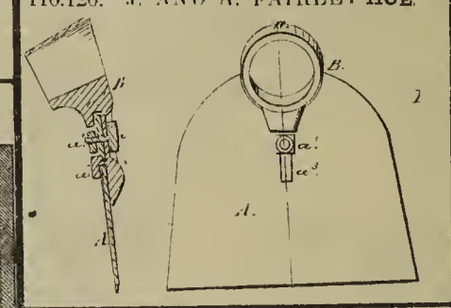
110,124. W. G. AND H. T. DOUGLASS AND J. M. REED. MACHINE FOR SEPARATING COCKEL FROM WHEAT.



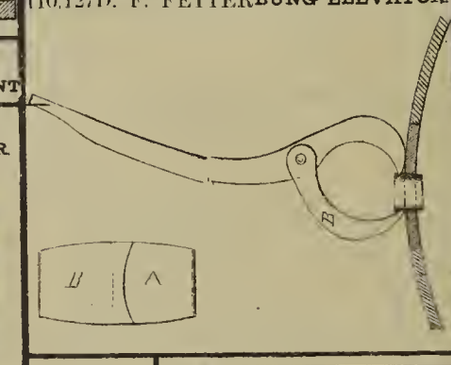
110,125. J. M. EARLE. COFFEE, TEA, AND SPICE CAN.



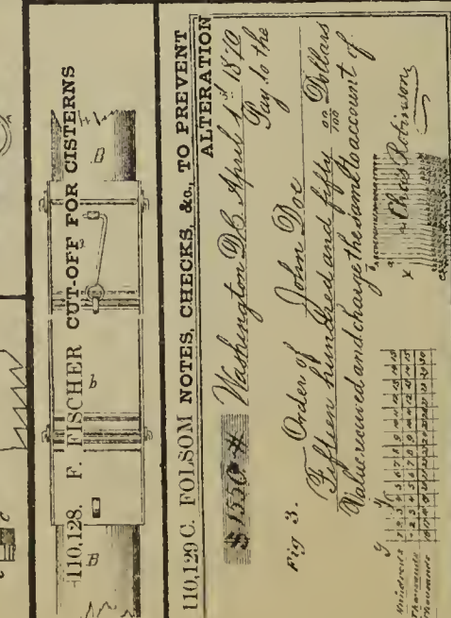
110,126. J. AND A. FAIRLEY. HOE.



110,127. D. F. FETTERBUNG. ELEVATOR.

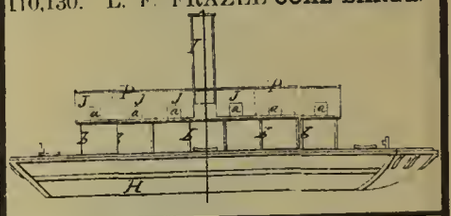


110,128. F. FISCHER. CUT-OFF FOR CISTERNS.

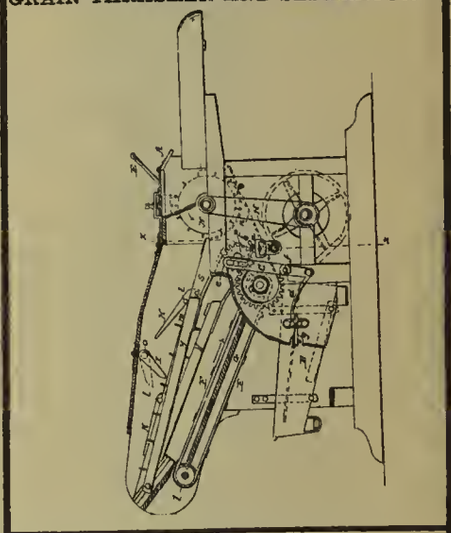


110,129. C. FOLSOM. NOTES, CHECKS, &c., TO PREVENT ALTERATION.

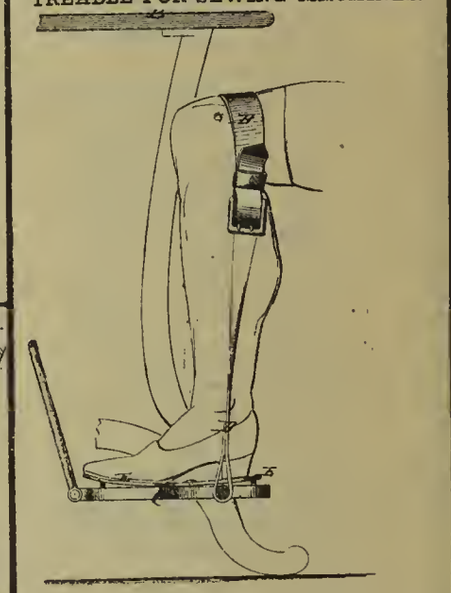
110,130. L. F. FRAZEE. COAL BARGE.



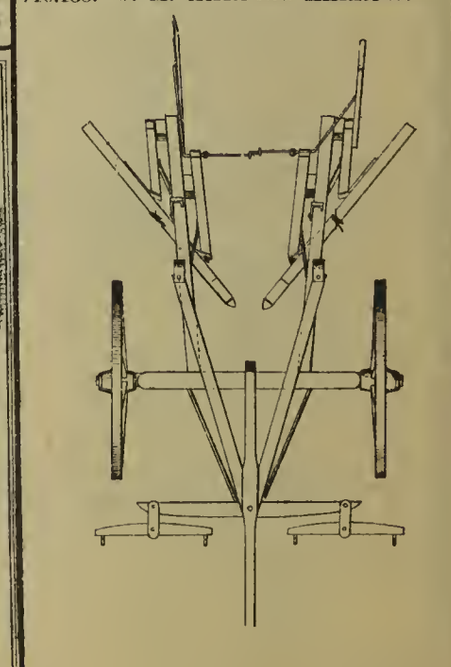
110,131. H. GILL. GRAIN THRASHER AND SEPARATOR.



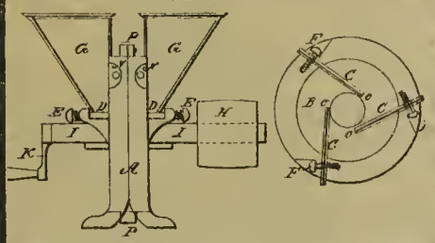
110,132. J. W. W. GORDON. TREADLE FOR SEWING MACHINES.



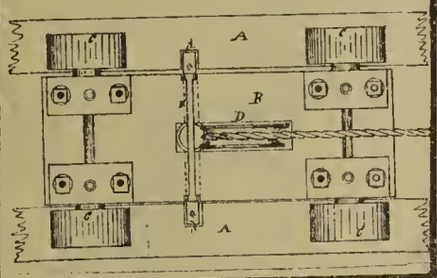
110,133. J. M. HARPER. HARROW.



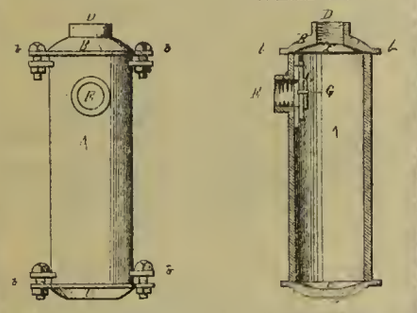
110,134. J. HARRINGTON
COTTON SEED HULLER.



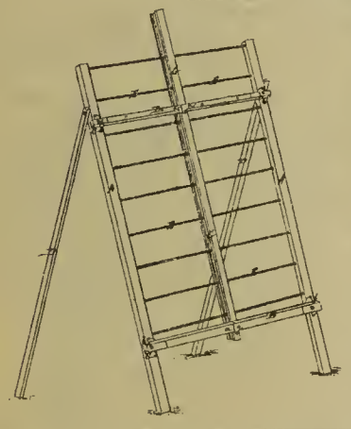
110,135. T. E. HAYMOND
HAY ELEVATOR AND CONVEYER.



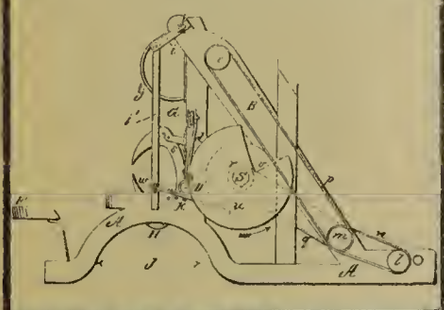
110,136. G. W. HEMENWAY
WELL TUBING.



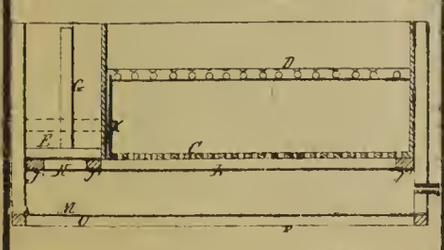
110,137. I. HOGELAND
CLOTHES DRIER.



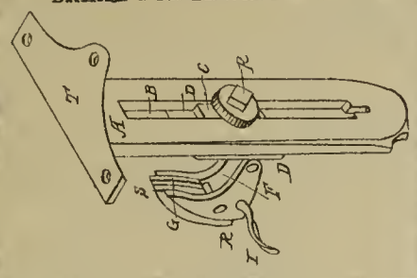
110,138. A. S. HOYT GRAIN BINDER.



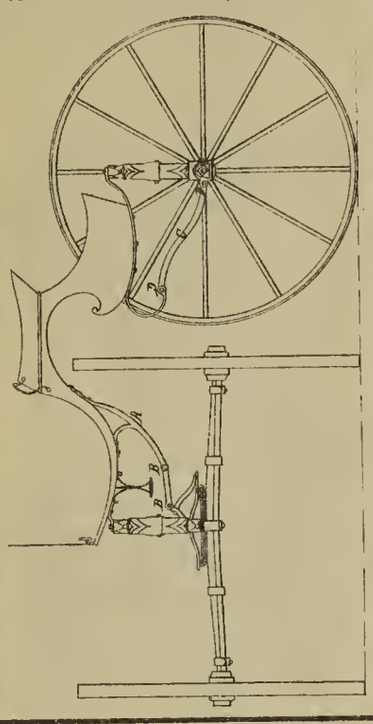
110,139. J. H. HUNTER.
FARMER'S BOILER.



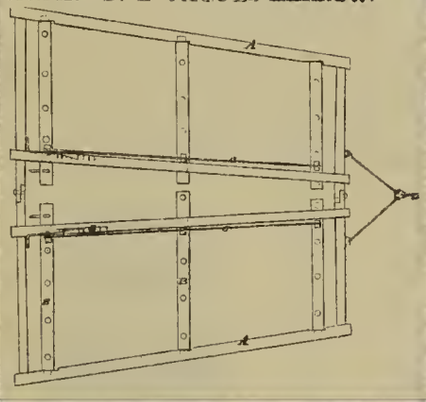
110,140. J. W. JACOB.
BRAKE FOR SEWING MACHINES.



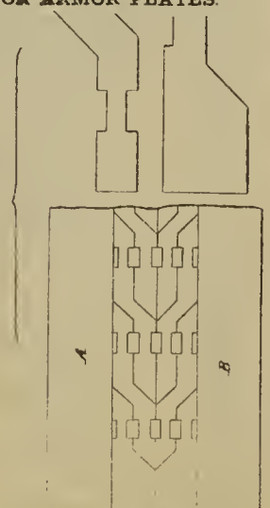
110,141. J. JACK VEHICLE.



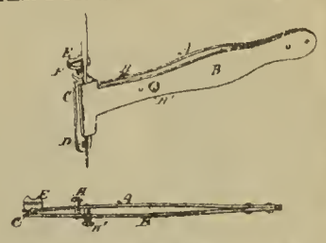
110,142. D. L JAQUES HARROW.



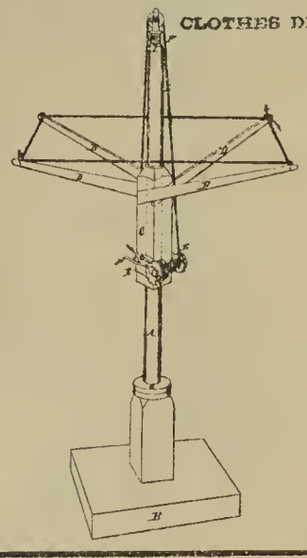
110,143. J. JEAVONS
PILE FOR ARMOR PLATES.



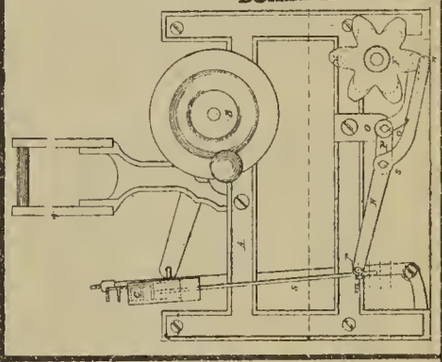
110,144. J. KARR NEEDLE
SETTER FOR SEWING MACHINES.



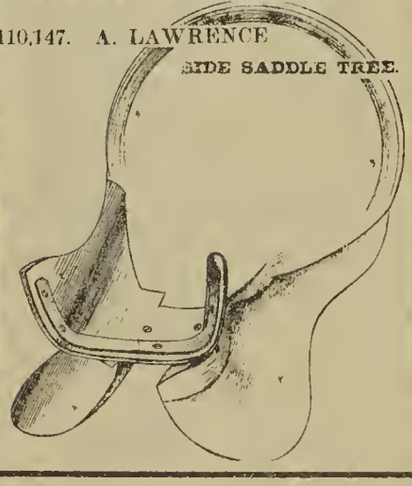
110,145. J. W. KENNING
CLOTHES DRIER.



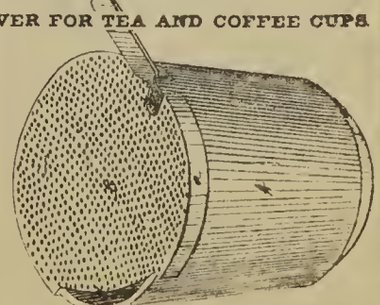
110,146. L. J. KNOWLES MECHANISM
FOR OPERATING SHUTTLE
BOXES IN LOOMS.



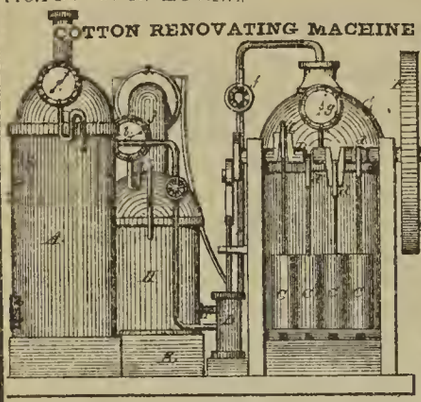
110,147. A. LAWRENCE
SIDE SADDLE TREE.



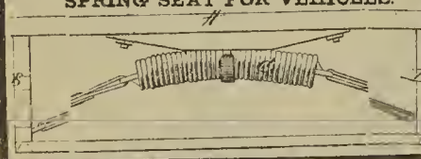
110,148. J. LEACH.
COVER FOR TEA AND COFFEE CUPS.



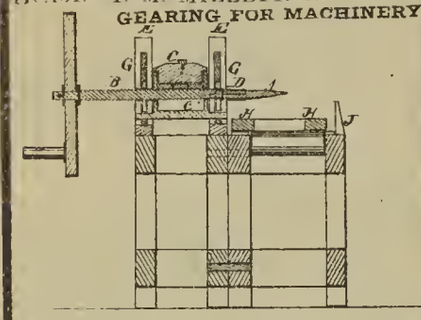
110,149. J. B. LYENS.
COTTON RENOVATING MACHINE



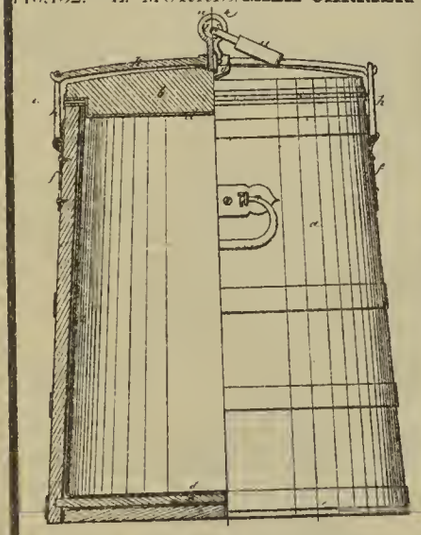
110,150. W. MEAD, F. D. MAY, AND R. L. HOYT.
SPRING SEAT FOR VEHICLES.



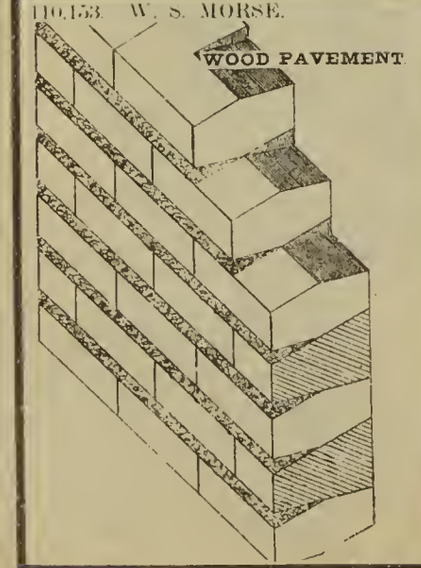
110,151. T. M. MILLETT, SR.
GEARING FOR MACHINERY



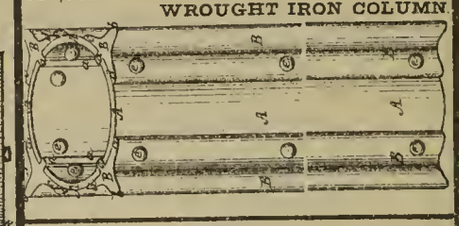
110,152. L. MORRIS. MILK CARRIER.



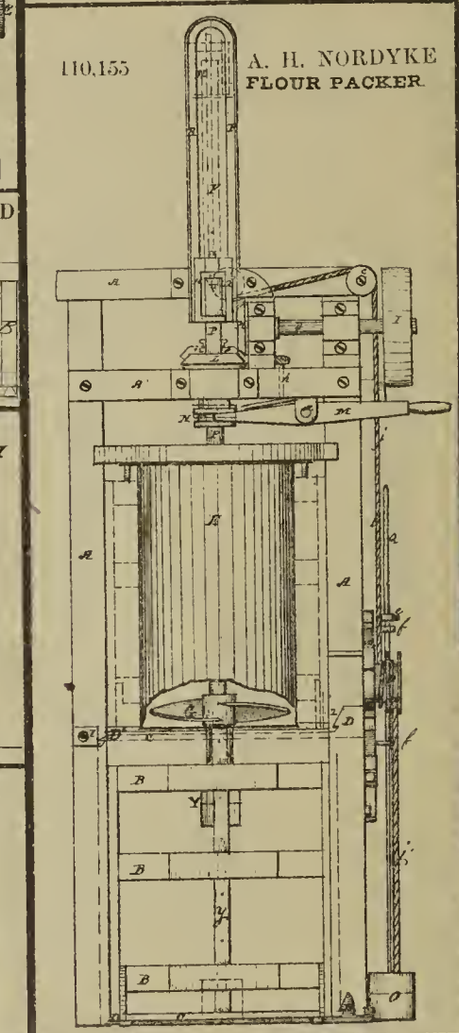
110,153. W. S. MORSE.
WOOD PAVEMENT.



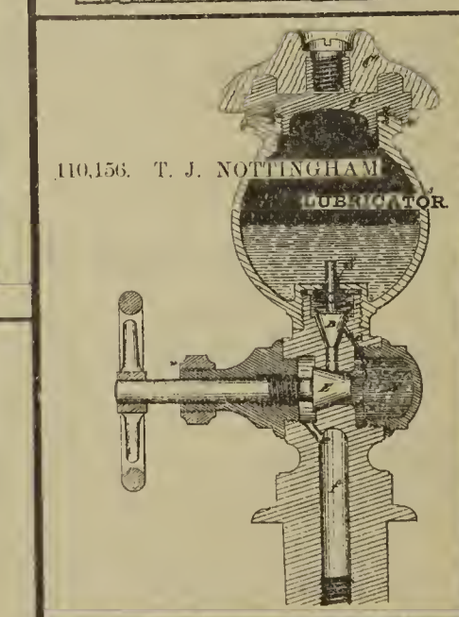
110,154. J. W. MURPHY.
WROUGHT IRON COLUMN.



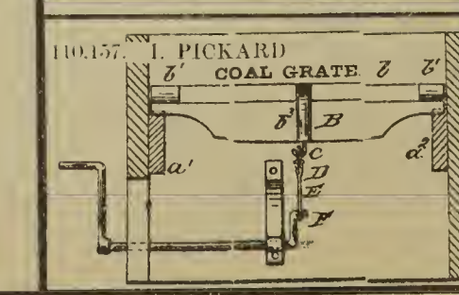
110,155 A. H. NORDYKE
FLOUR PACKER.



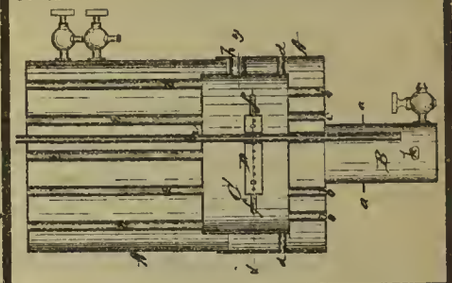
110,156. T. J. NOTTINGHAM
LUBRICATOR.



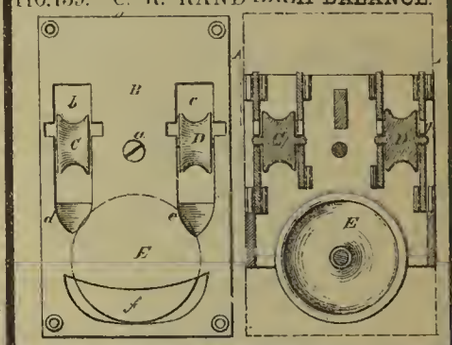
110,157. I. PICKARD
COAL GRATE.



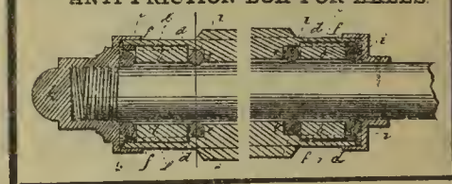
110,158. P. QUINN STEAM BOILER.



110,159. C. R. RAND SASH BALANCE.



110,160. W. O. REID.
ANTI FRICTION BOX FOR AXLES.

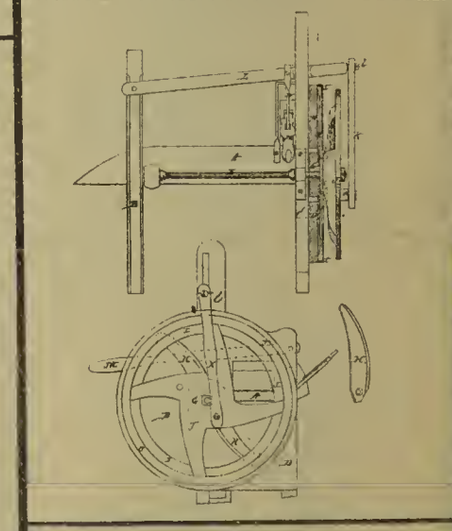


110,161. L. F. ROBERTSON COMPOUND FOR BATING HIDES AND SKINS

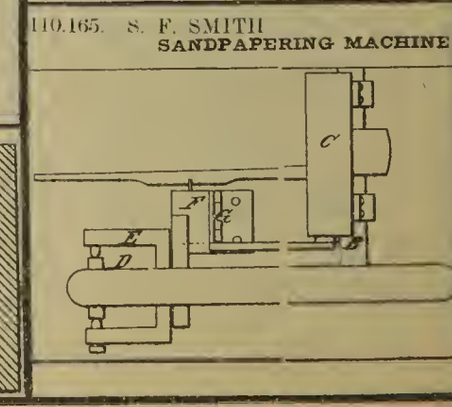
110,162. C. L. ROORBACH IMPLEMENT FOR REMOVING CORNS, BUNIONS, &c.

110,163 J. SCHIEDER MATERIAL FOR BEARING SURFACES IN MACHINERY.

110,164 V. J. SHRYOCK STRAW CUTTER

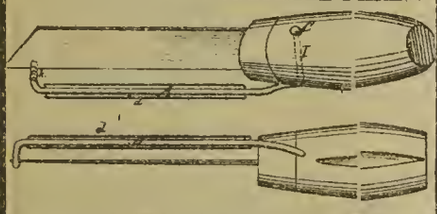


110,165. S. F. SMITH
SANDPAPERING MACHINE



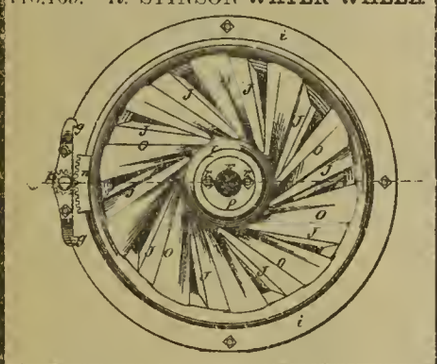
110,166. H. S. SNOW SELF ACTING VALVE OR CUT-OFF FOR LIQUID CANS

110,167. H. SOGGS. FRUIT AND VEGETABLE PARER.

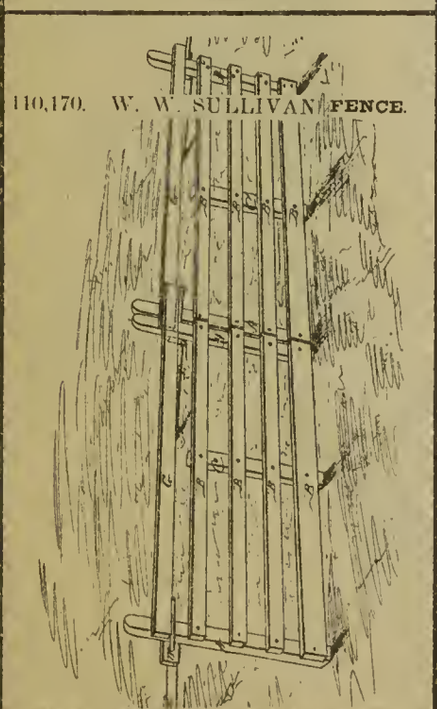


110,168. G. N. STEARNS SPOKE SHAVE.

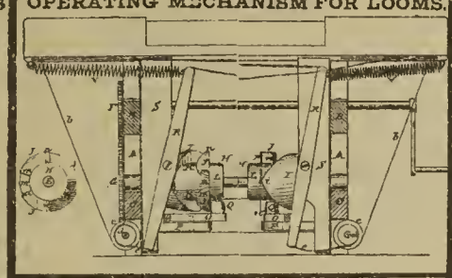
110,169. R. STINSON WATER WHEEL.



110,170. W. W. SULLIVAN FENCE.

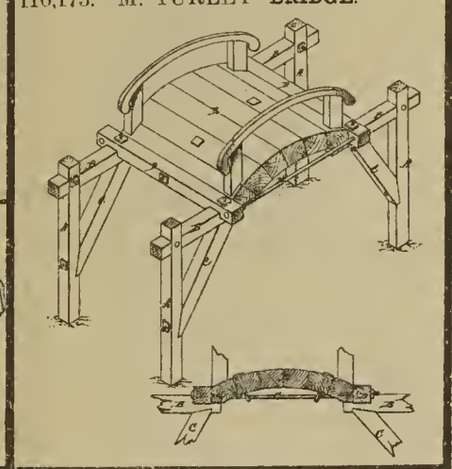


110,171. E. P. TERRILL SHUTTLE OPERATING MECHANISM FOR LOOMS.

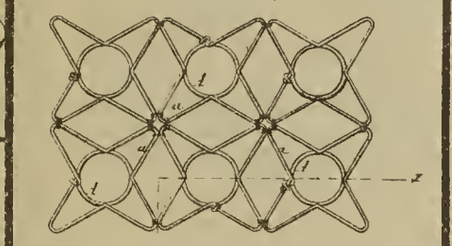


110,172. W. A. TORREY INDIA RUBBER AND COMBINATION HOSE

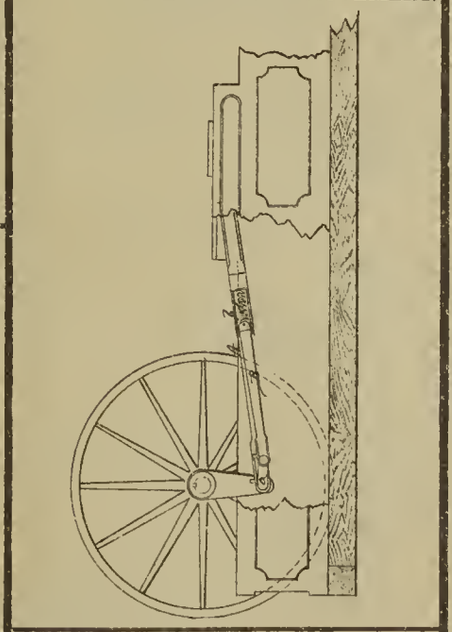
110,173. M. TURLEY BRIDGE.



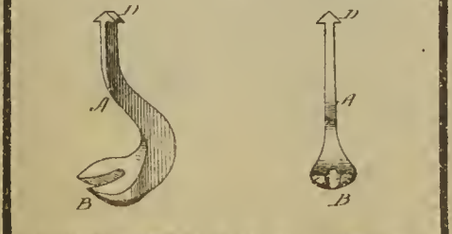
110,174. H. C. VELIE. UPHOLSTERING SPRING



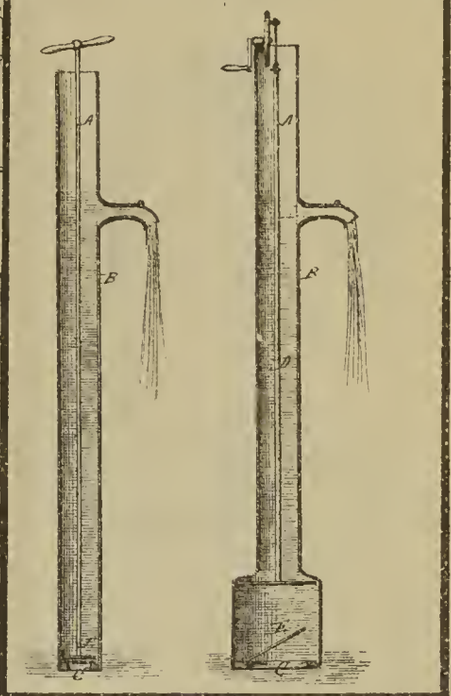
110,175 W. WALKER. MECHANICAL MOVEMENT.



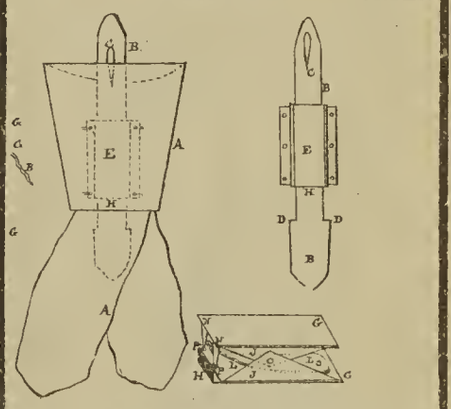
110,176. W. G. WARD NAIL EXTRACTOR.



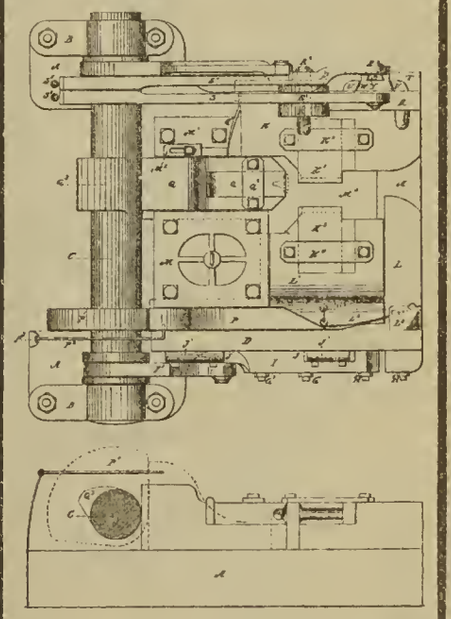
110,177. W. G. WARD PUMP.



110,178. W. A. WICKS NECKTIE SUPPORTER

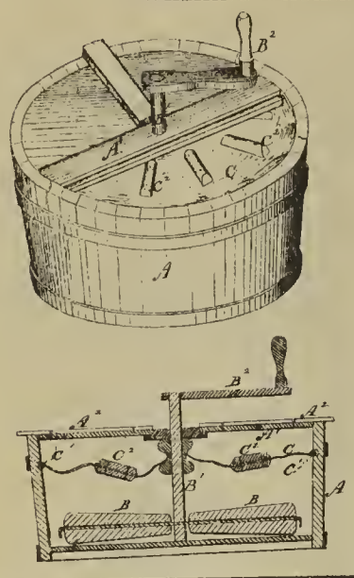


110,179. C. H. WILLIAMS MACHINE FOR MAKING COUPLING PINS

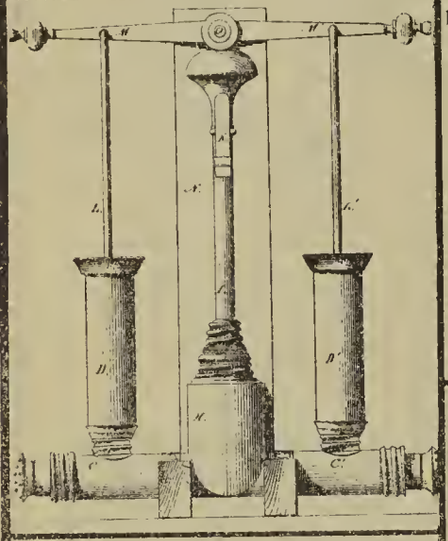


110,180. L. WILLIAMS MOP HEAD.

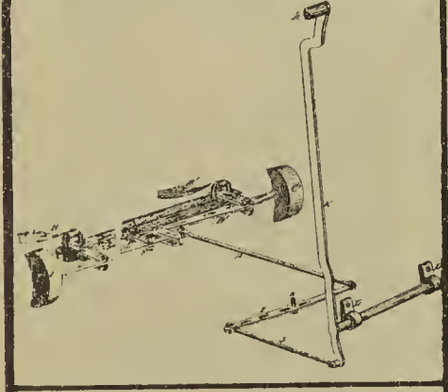
110,181. G. L. WITSIL WASHING MACHINE



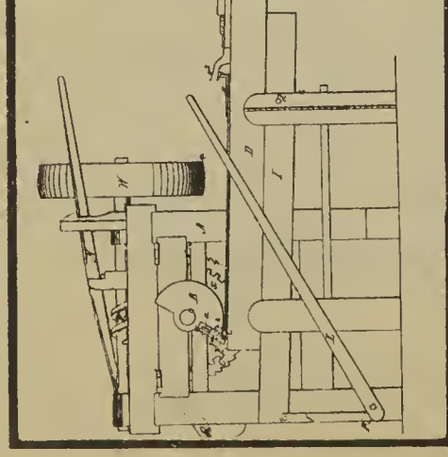
110,182. H. E. WOLCOTT PUMP.



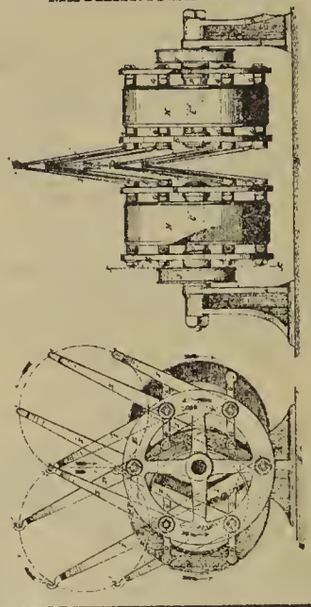
110,183. J. WOLFLA WAGON BRAKE.



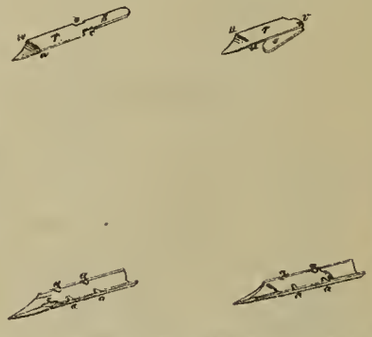
110,184 J. WOODBURN AND S. F. SMITH MACHINE FOR BENDING PLOW HANDLES



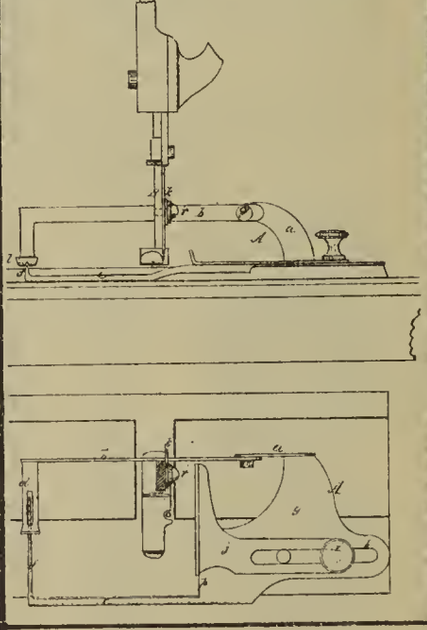
110,185. J. WOOLF. MECHANICAL MOVEMENT



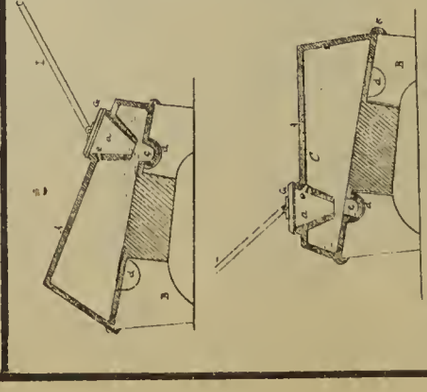
110,186. G. W. WOOLLEY PEN.



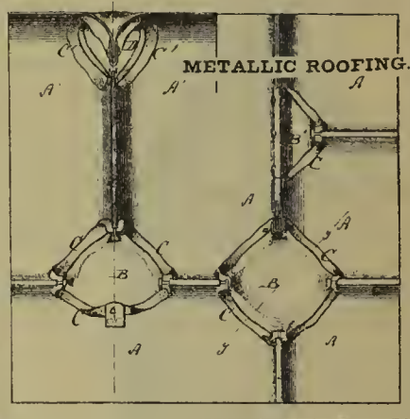
4,196. J. BOLTON. TUCK CREASING DEVICE FOR SEWING MACHINES.



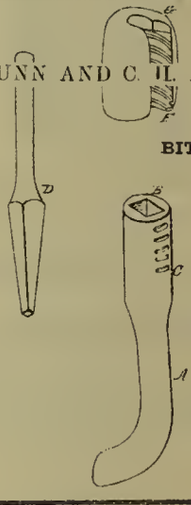
4,197. S. DARLING INKSTAND.



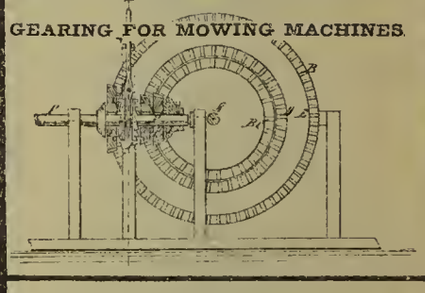
4,198. S. HUGHES. METALLIC ROOFING.



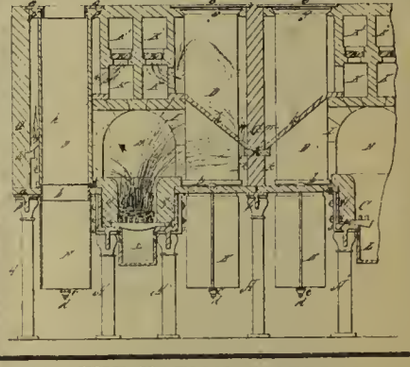
4,199. L. J. GUNN AND C. H. AMIDON BIT STOCK.



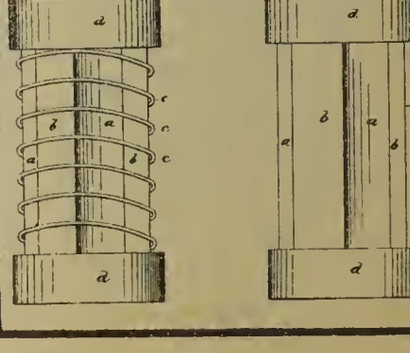
4,200. J. V. STRAIT. GEARING FOR MOWING MACHINES.



4,201. A. WEBER FURNACE FOR BURNING BONE BLACK AND OTHER SUBSTANCES.



4,202. THE NATIONAL SPRING COMPANY COMBINED INDIA RUBBER AND STEEL SPRINGS.



ILLUSTRATIONS OF PATENTS

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THE UNITED STATES PATENT OFFICE

DECEMBER 20, 1870.

110,187. S. BACHER
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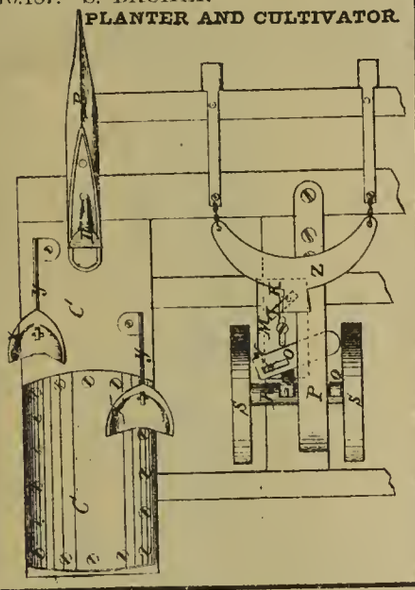
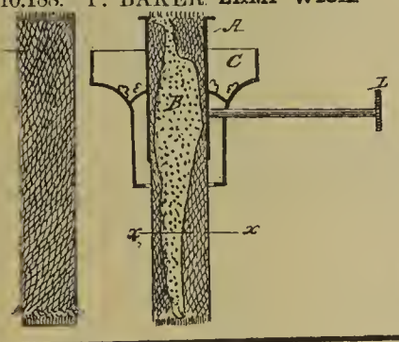
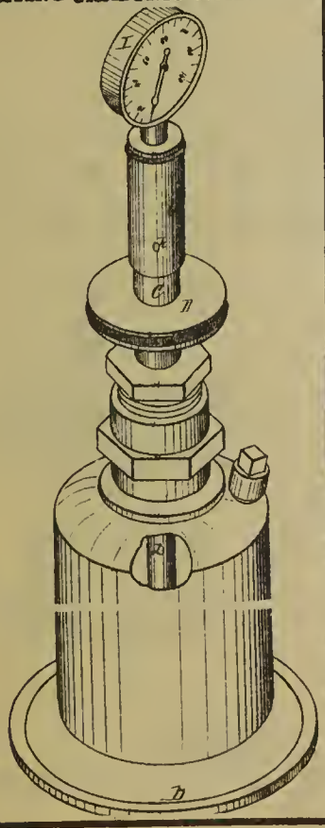


110,188. P. BAKER. LAMP WICK.

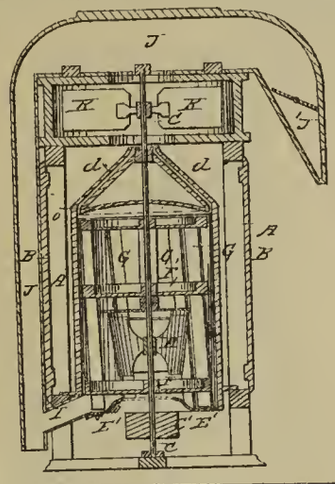


110,189. H. BALMAIN.
PACKING CAUSTIC ALKALIES

110,190. W. H. BATE APPARATUS FOR GENERATING CARBONIC ACID.



110,191 J. A. BENZING, JR SMUT MILL.



110,192. J. S. BLYMYER.
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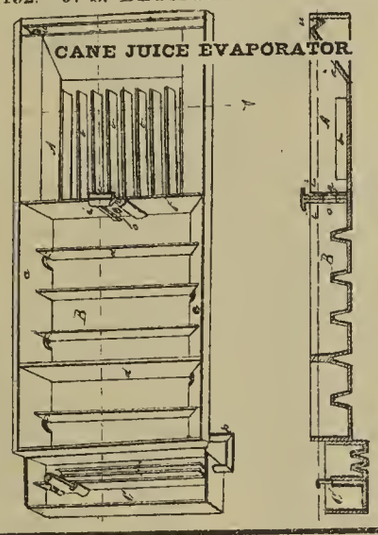
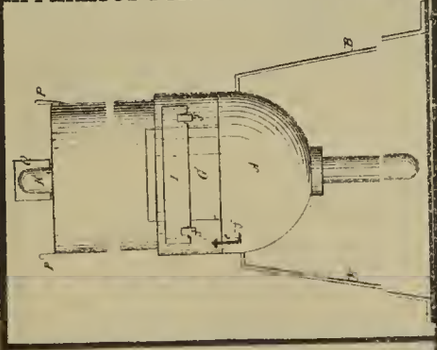
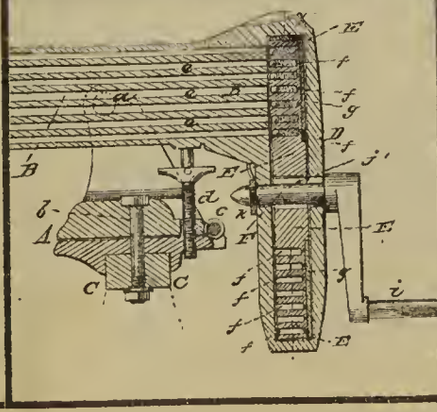


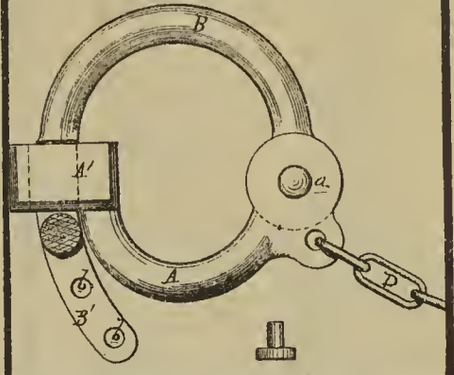
110,193. J. W. BRADY
APPARATUS FOR PITCHING BARRELS



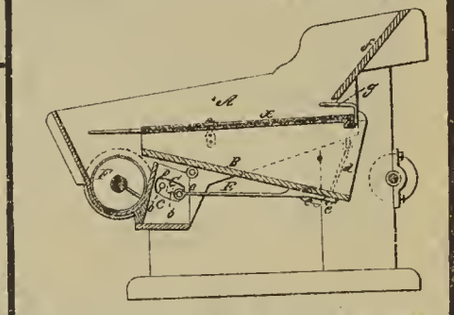
110,194 E. BREHM REVOLVING CANNON



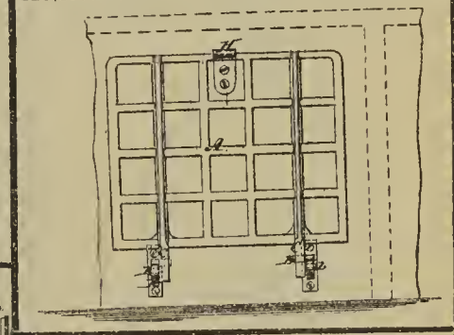
110,195. B. BRISCOE. SEAL LOCK.



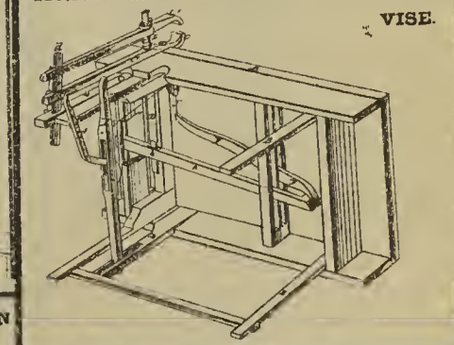
110,196. L. BRONSON PANNING MILL.



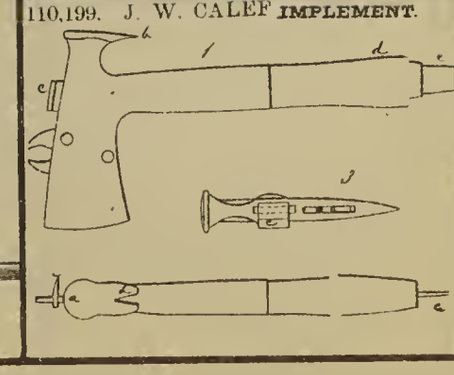
110,197. D. BUCHANAN PEW SHELF.



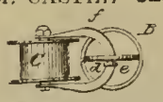
110,198. I. BYRD AND T. BYRD, JR. VISE.



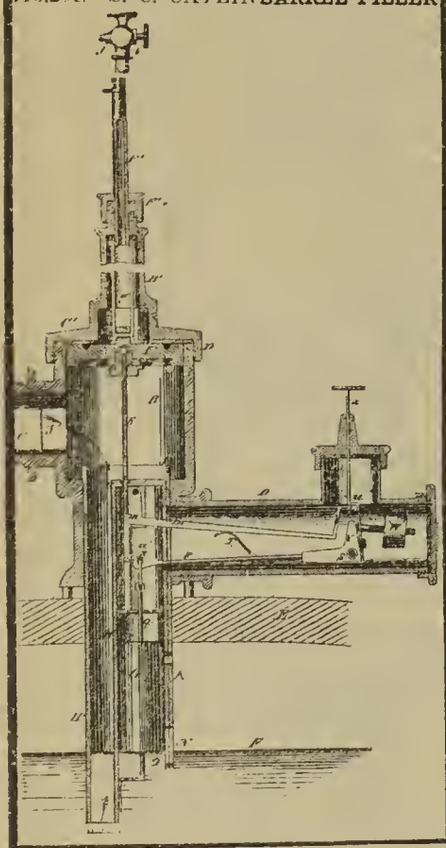
110,199. J. W. CALEF IMPLEMENT.



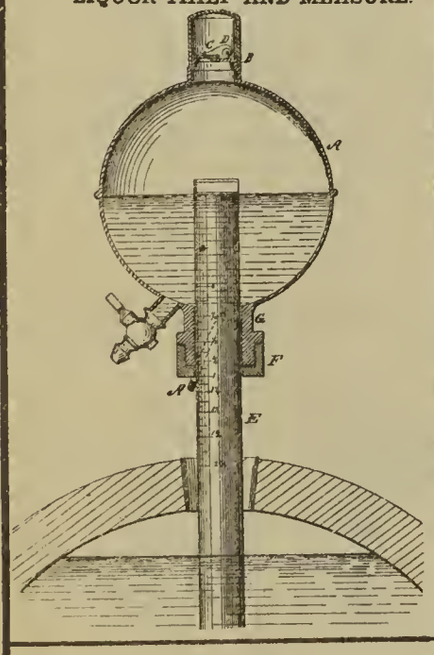
110,200. D. M. CASTLE CLEVIS.



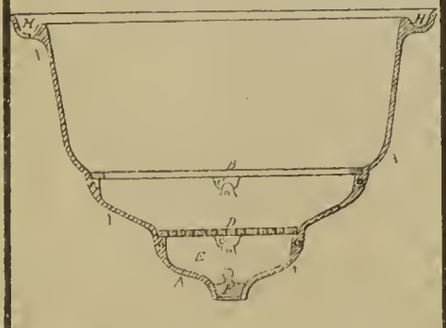
110,201. S. C. CATLIN BARREL FILLER.



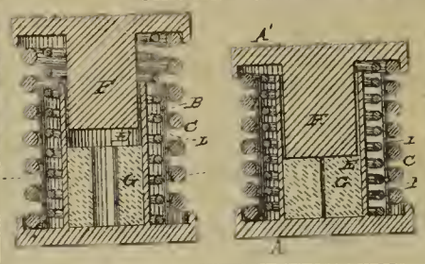
110,202. S. C. CATLIN
LIQUOR THIEF AND MEASURE.



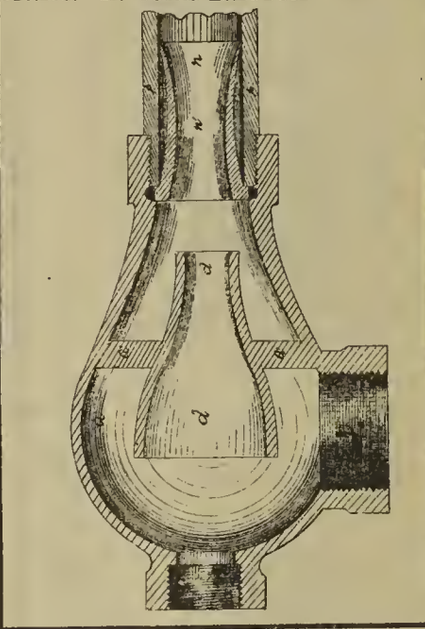
110,203. E. G. CHORMANN AND
E. McLAUGHLIN
KITCHEN AND HOUSEHOLD SINK



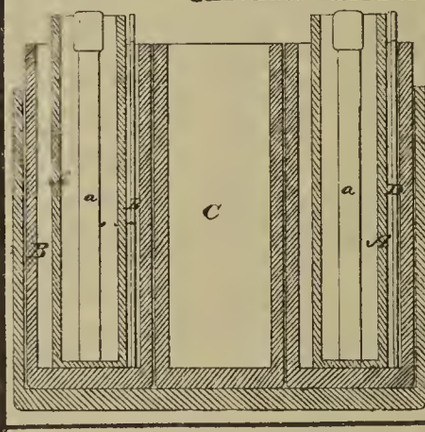
110,204. J. W. COCHRAN
CAR AND OTHER SPRING.



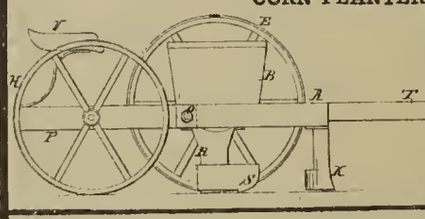
110,205. H. COLL. EJECTOR.



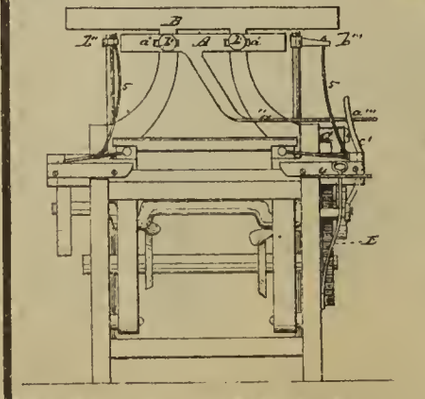
110,206. D. McF. COOK.
GALVANIC BATTERY.



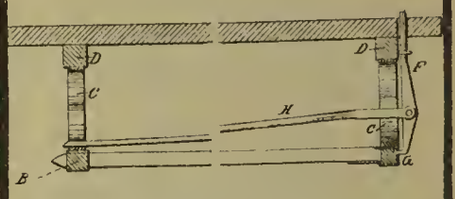
110,207. R. B. AND H. CORSON
CORN PLANTER.



110,208. J. COWNGILL.
STOPPING MECHANISM FOR LOOMS.



110,209. C. DANIEL VEHICLE.



110,210 F. E. DARROW POWDER FLASK.

110,211. A. DAVIS.
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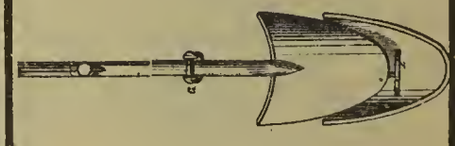
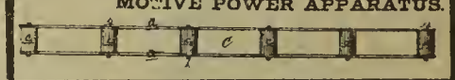


110,212. T. DAVIS
MOTIVE POWER APPARATUS.



110,213. B. DAY. SECTIONAL IMAGE.

110,214. J. C. DEARBORN
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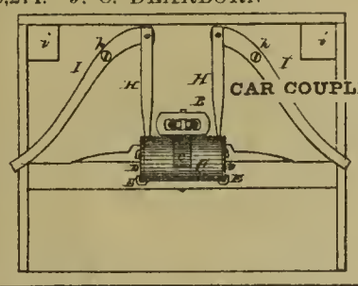
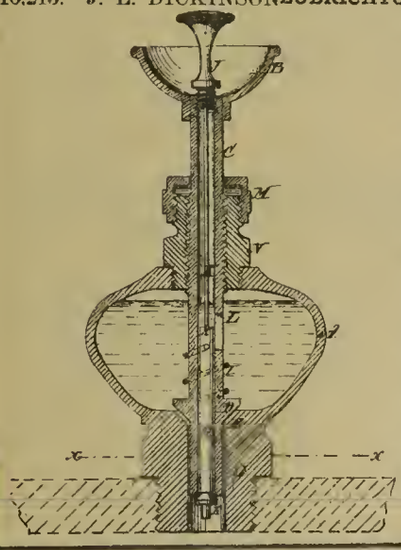
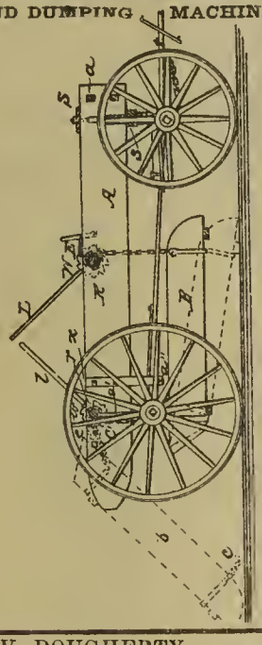


110,215. J. L. DICKINSON LUBRICATOR



110,216. W. D. DORSEY PORTABLE LOADING AND DUMPING MACHINE.



110,217. J. W. DOUGHERTY
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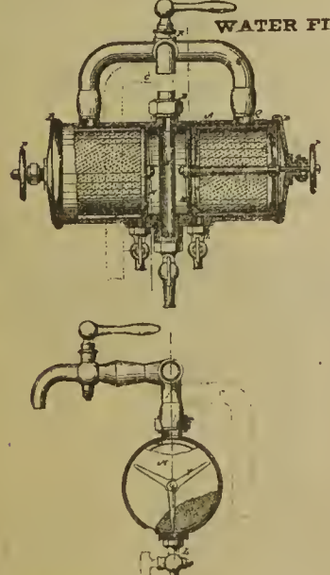
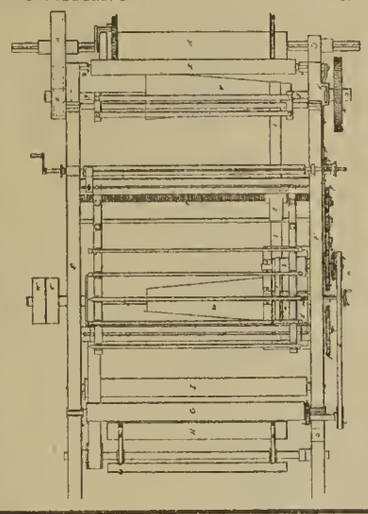
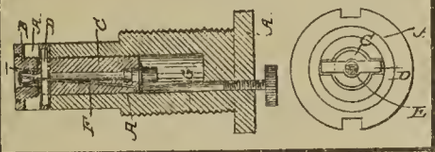


110,218. G. DRAPER MACHINE FOR BEAMING YARNS OR WARPS.



110,219. J. EGGO. SHELL FUSE



110,220. T. C. ELLISON
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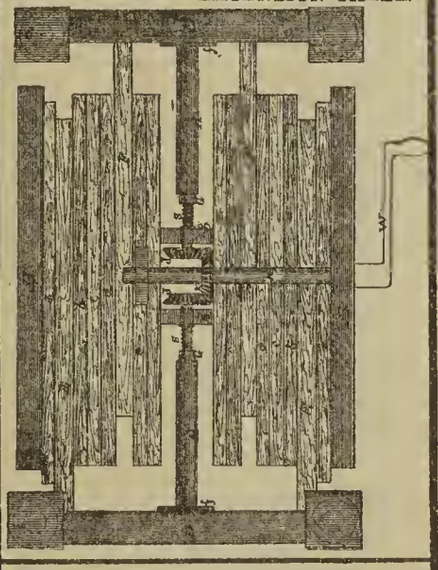
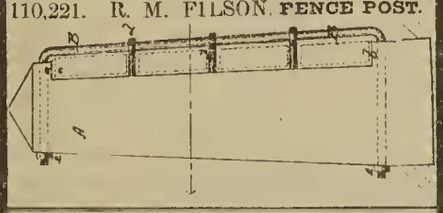


110,221. R. M. FILSON. FENCE POST.



110,222. F. H. FISHER
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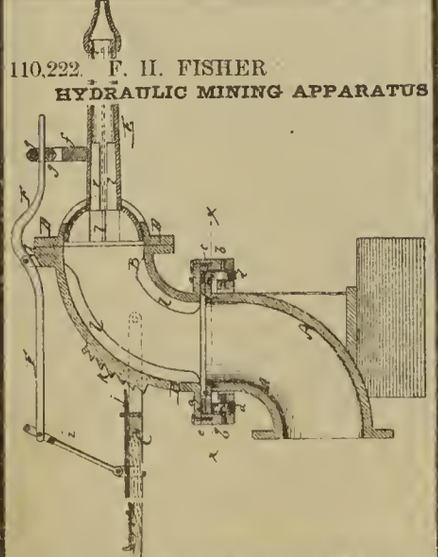

110,223. G. W. FISHER AND H. REID
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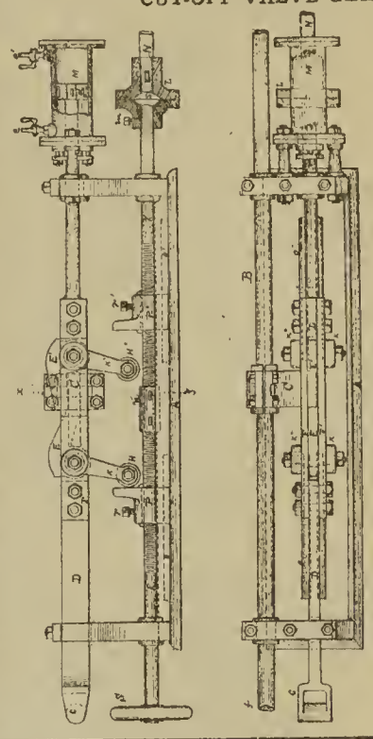
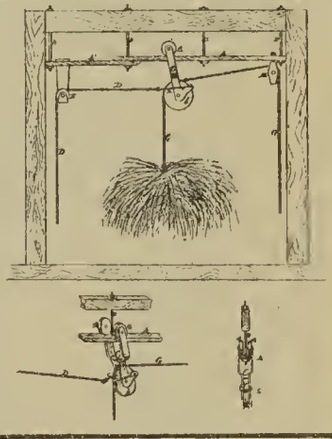
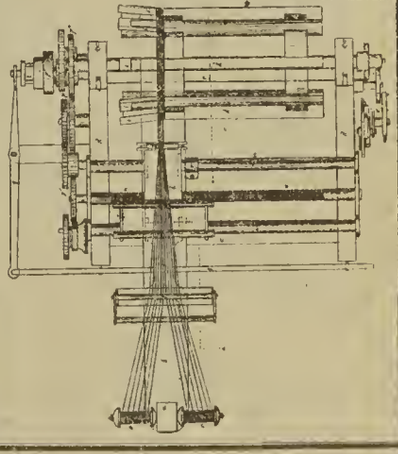


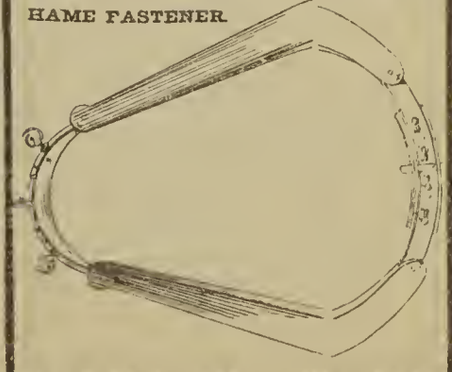
110,224. R. FURNAS HAY ELEVATOR



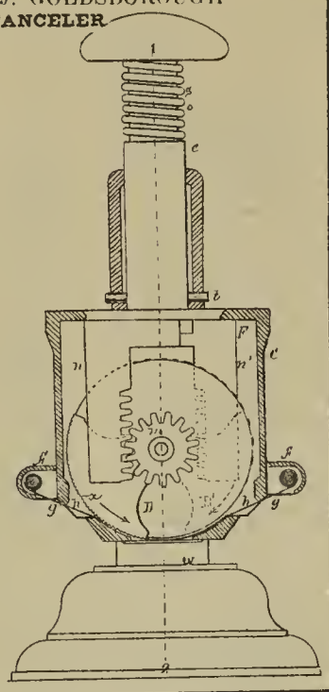
110,225. J. FURRER.
WARPING MACHINE.



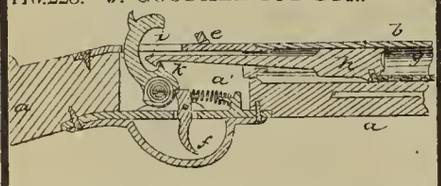
110,226 A. GALE AND H. R. JOHNSON
HAME FASTENER.



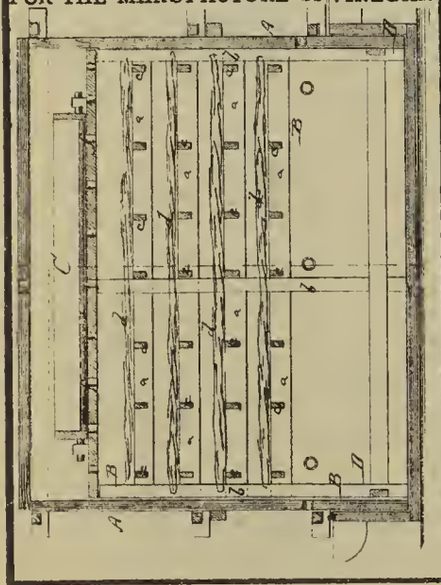
110,227. J. GOLDSBOROUGH
STAMP CANCELER



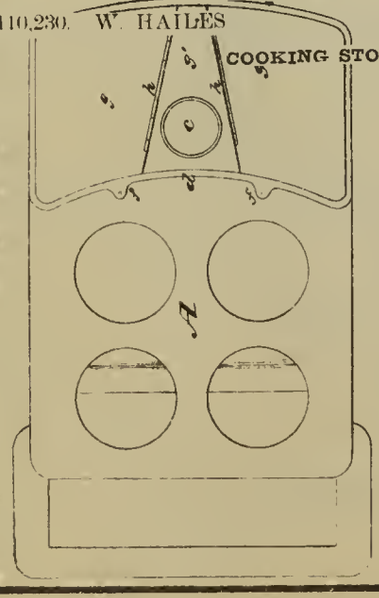
110,228. J. GOODALE TOY GUN.



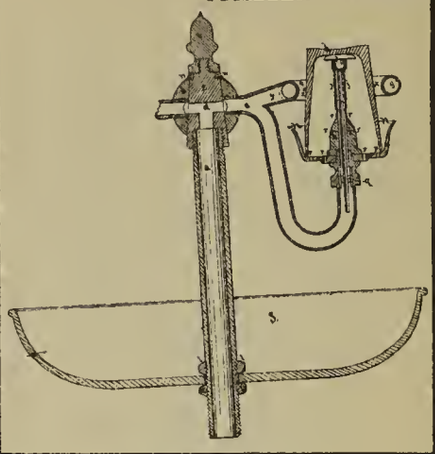
110,229. T. GRUNDMANN APPARATUS
FOR THE MANUFACTURE OF VINEGAR



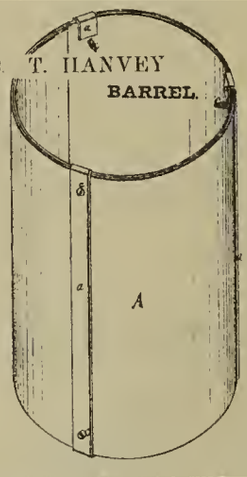
110,230. W. HAILES
COOKING STOVE.



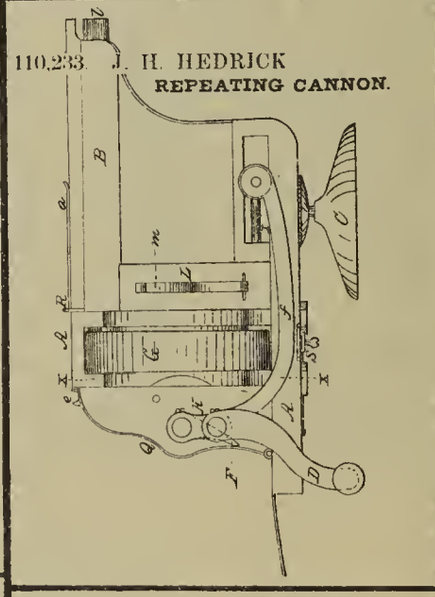
110,231. A. HALLOWELL
TUMBLER WASHER.



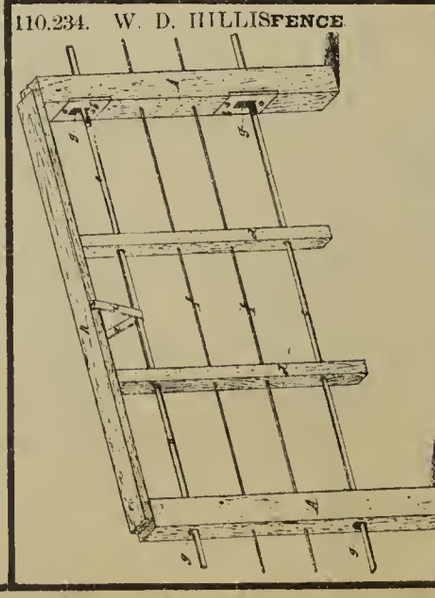
110,232. T. HANVEY
BARREL.



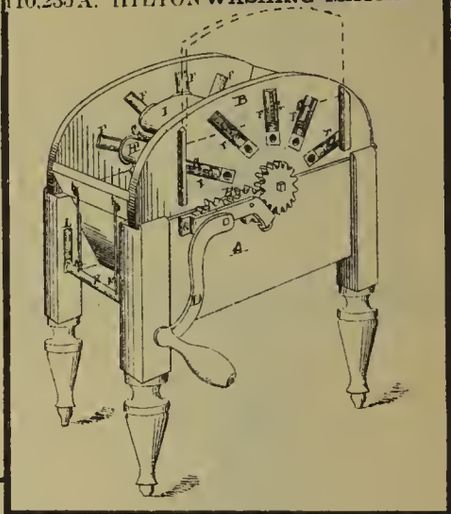
110,233. J. H. HEDRICK
REPEATING CANNON.



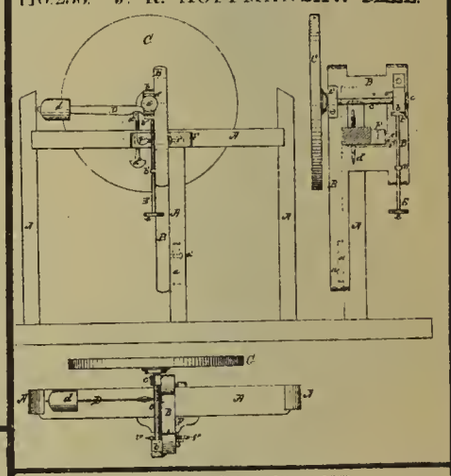
110,234. W. D. HILLIS FENCE.



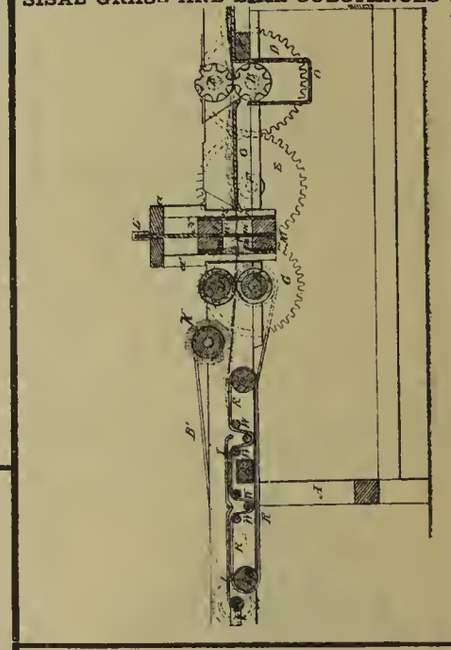
110,235 A. HILTON WASHING MACHINE



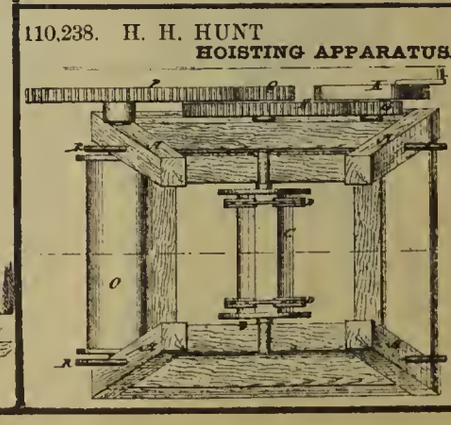
110,236. J. R. HOFFMAN SAW MILL.



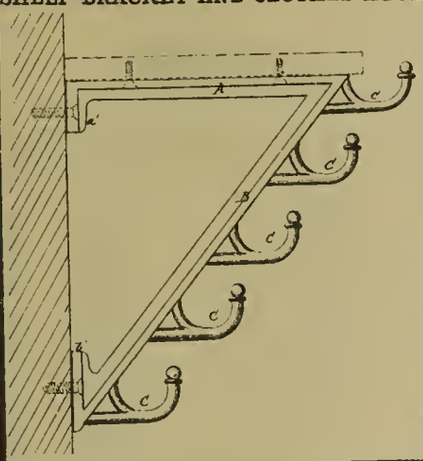
110,237. G. E. HOPKINS AND
W. B. SHEDD MACHINE
FOR PREPARING FIBERS FROM
SISAL GRASS AND LIKE SUBSTANCES



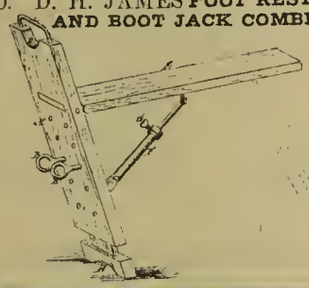
110,238. H. H. HUNT
HOISTING APPARATUS.



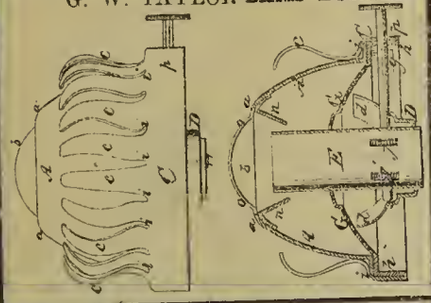
110,239. H. E. HUTCHINSON
SHELF BRACKET AND CLOTHES HOOK



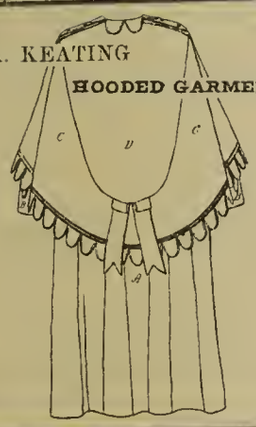
110,240. D. H. JAMES FOOT REST AND BOOT JACK COMBINED



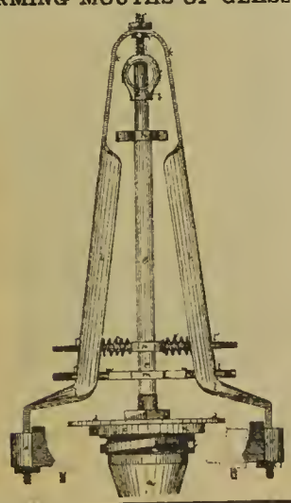
110,241 W. P. JENNEY AND G. W. TAYLOR LAMP BURNER.



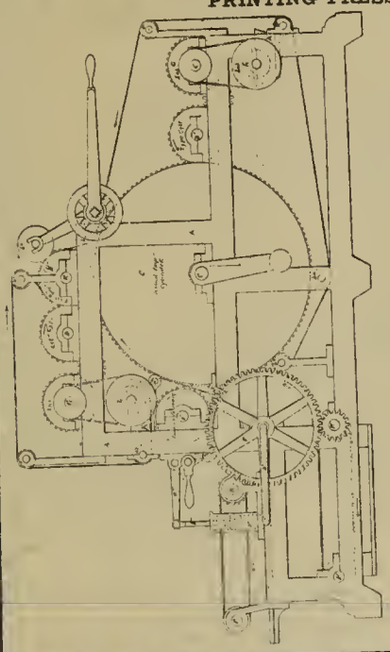
110,242. A. KEATING
HOODED GARMENT



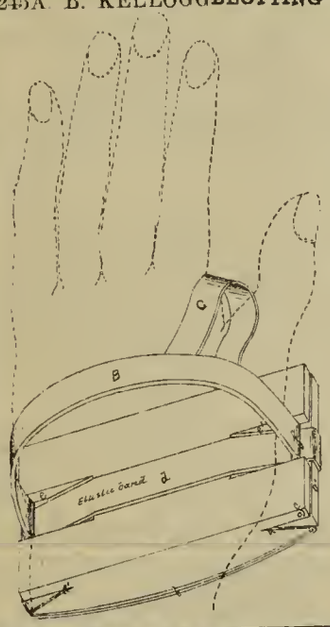
110,243. G. M. KEEFFER. TOOL FOR FORMING MOUTHS OF GLASS JARS.



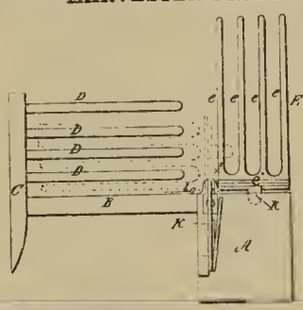
110,244. J. W. KELLBERG
PRINTING PRESS.



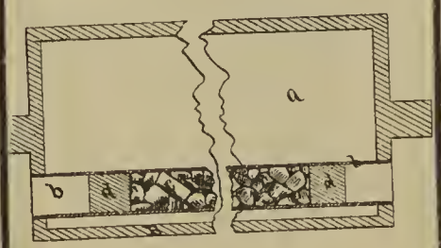
110,245A. B. KELLOGG BLOTTING PAD.



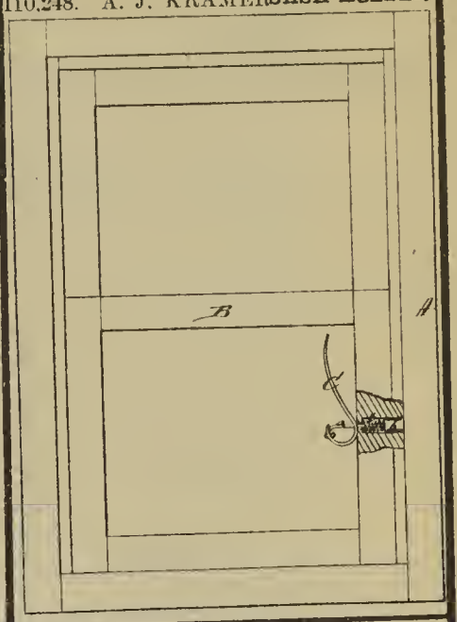
110,246. T. W. S. KIDD
HARVESTER DROPPER.



110,247. W. KITSON MODE OF BALANCING CYLINDERS, PULLEYS, &c.

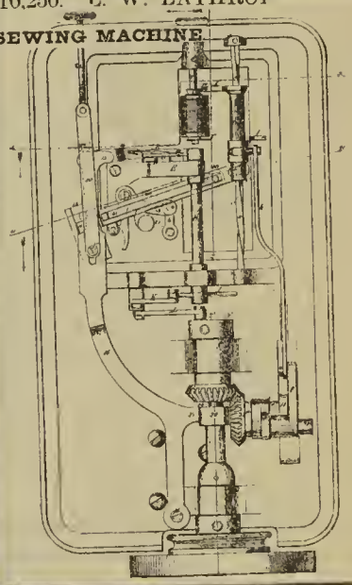


110,248. A. J. KRAMER SASH HOLDER

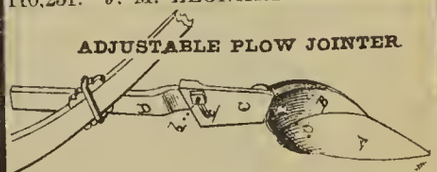


110,249. F. C. KRAUSE CLAY RETORT FOR THE MANUFACTURE OF GAS.

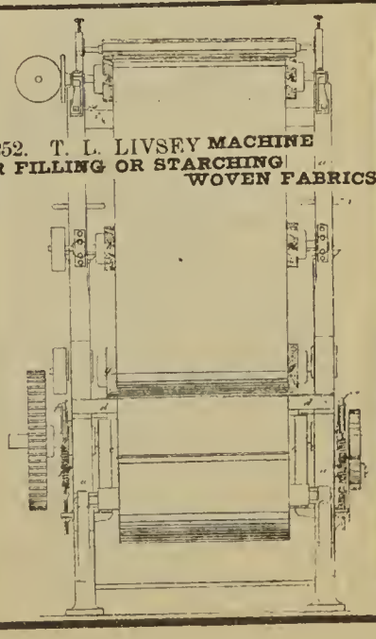
110,250. L. W. LATHROP
SEWING MACHINE



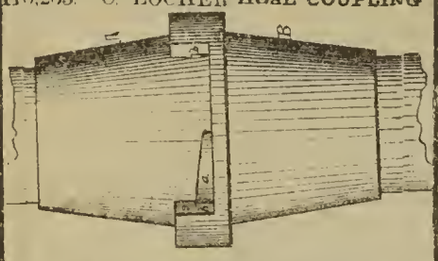
110,251. J. M. LEONARD
ADJUSTABLE PLOW JOINTER.



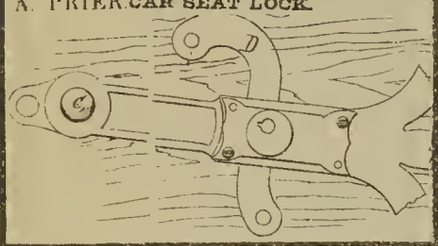
110,252. T. L. LIVSEY MACHINE FOR FILLING OR STARCHING WOVEN FABRICS



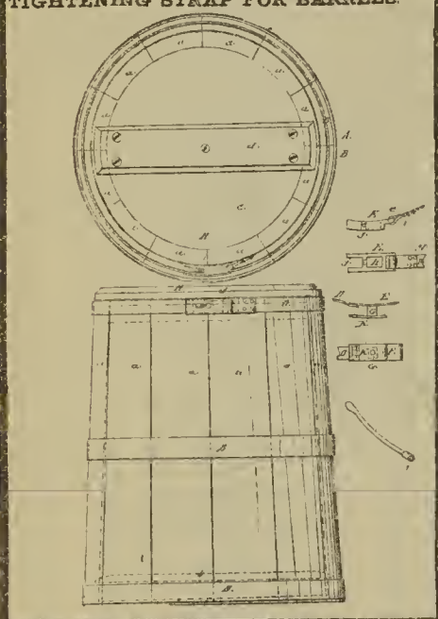
110,253. C. LOCHER HOSE COUPLING



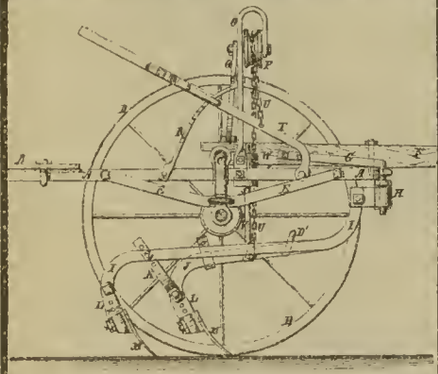
110,254. A. LŒFFELHOLZ AND A. PRIER. CAR SEAT LOCK



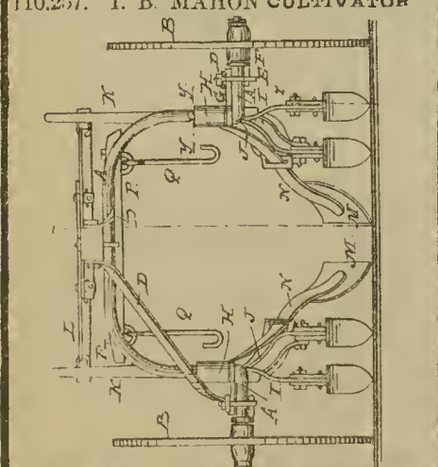
110,255. S. MACFERRAN TIGHTENING STRAP FOR BARRELS



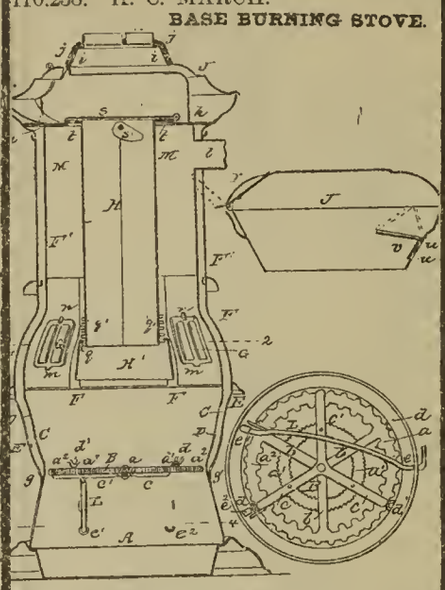
110,256. I. B. MAHON CULTIVATOR



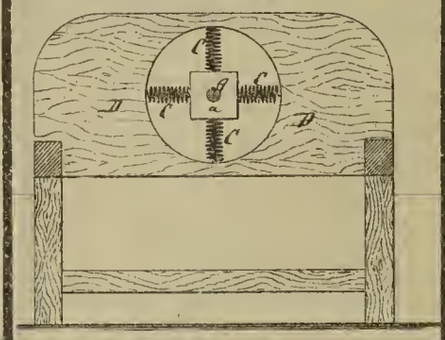
110,257. I. B. MAHON CULTIVATOR



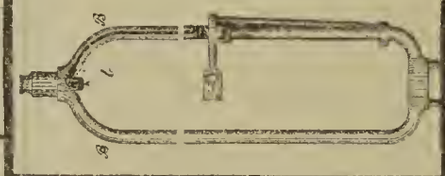
110,258. H. C. MARCH. BASE BURNING STOVE.



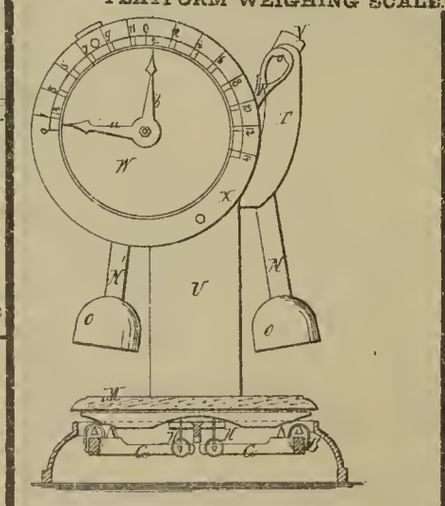
110,259. H. MARTINSON MODE OF BALANCING SHAFTS.



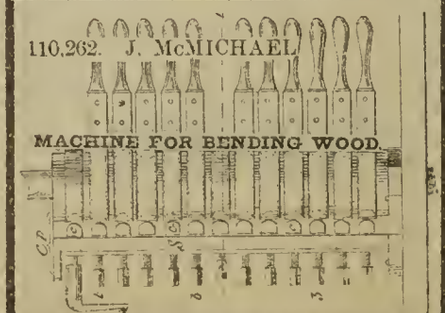
110,260. T. MAYOR. FLIER FOR SPINNING.



110,261. R. J. McKEONE PLATFORM WEIGHING SCALE.

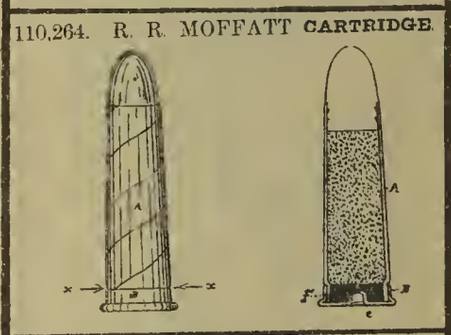


110,262. J. McMICHAEL MACHINE FOR BENDING WOOD.

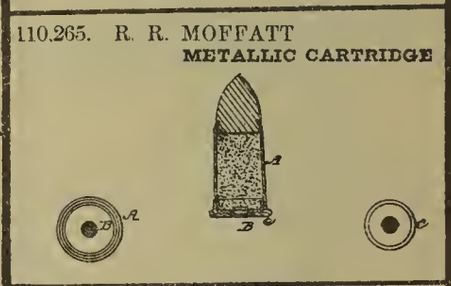


110,263 W. MILLER CLOTHES PIN.

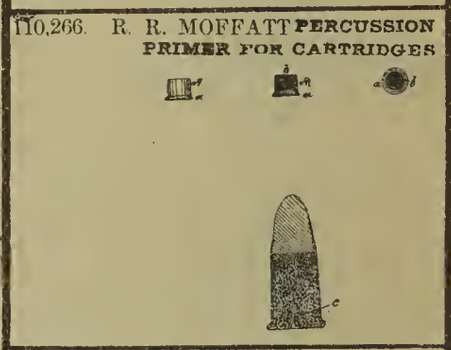
110,264. R. R. MOFFATT CARTRIDGE.



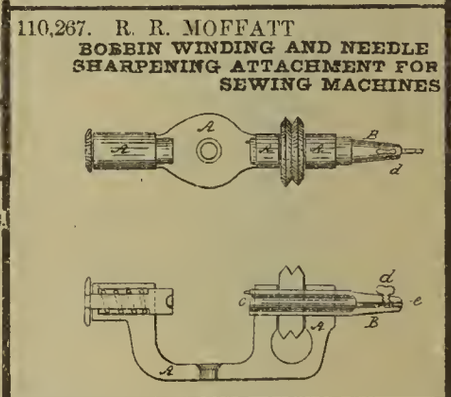
110,265. R. R. MOFFATT METALLIC CARTRIDGE



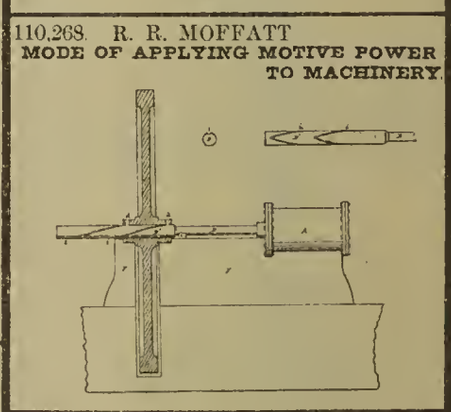
110,266. R. R. MOFFATT PERCUSSION PRIMER FOR CARTRIDGES



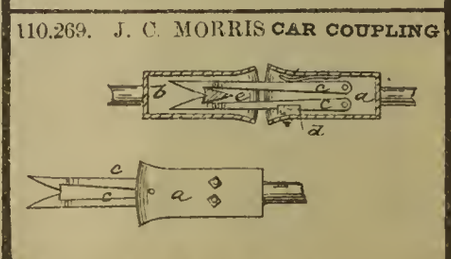
110,267. R. R. MOFFATT BOBBIN WINDING AND NEEDLE SHARPENING ATTACHMENT FOR SEWING MACHINES



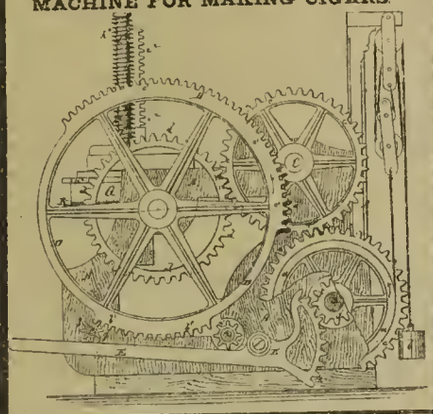
110,268. R. R. MOFFATT MODE OF APPLYING MOTIVE POWER TO MACHINERY.



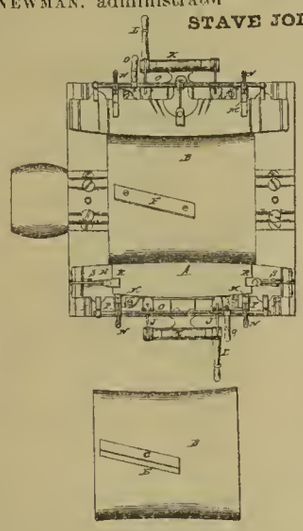
110,269. J. C. MORRIS CAR COUPLING



110,270. R. NEISCH
MACHINE FOR MAKING CIGARS

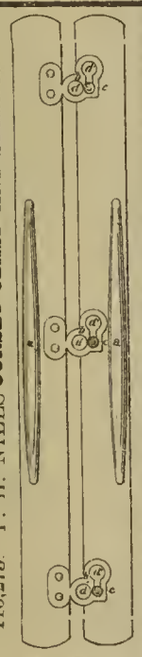


110,271. S. NEWMAN, dec'd.
J. NEWMAN, administrator
STAVE JOINTER

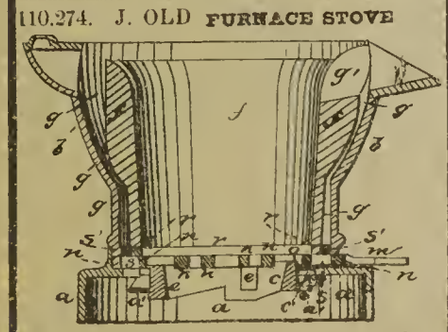


110,272 J. NEWTON MUSIC STAND

110,273 P. H. NILES CORSET CLASP AND SPRING

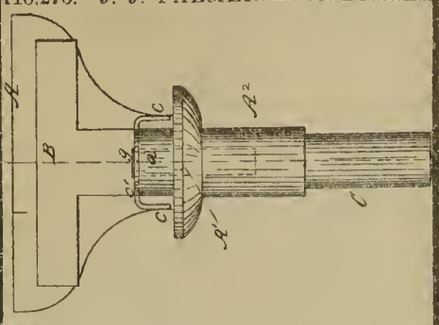


110,274. J. OLD FURNACE STOVE



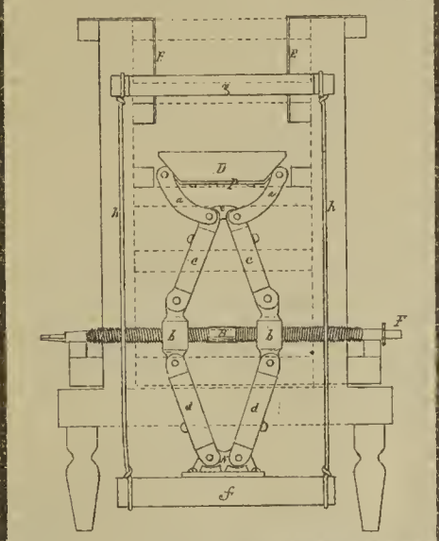
110,275. M. O'REILLY.
PREPARATION OF COD LIVER OIL

110,276. J. J. PALMER VAPOR BURNER

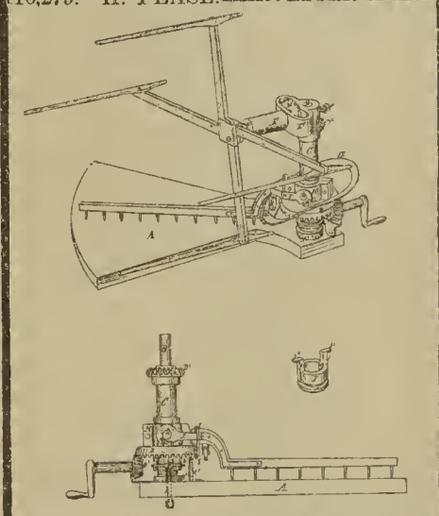


110,277. A. PARAF.
MANUFACTURE OF COLORS AND THEIR APPLICATION TO FABRICS

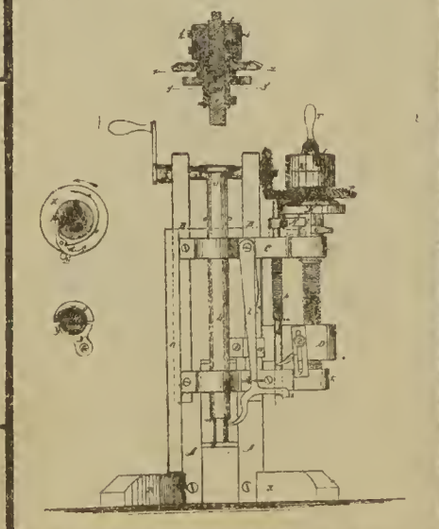
110,278. I. N. PATTEN AND
E. W. LONG COTTON PRESS.



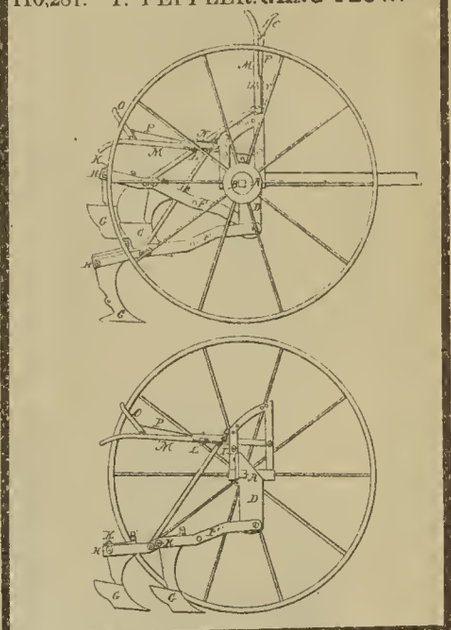
110,279. H. PEASE. HARVESTER RAKE



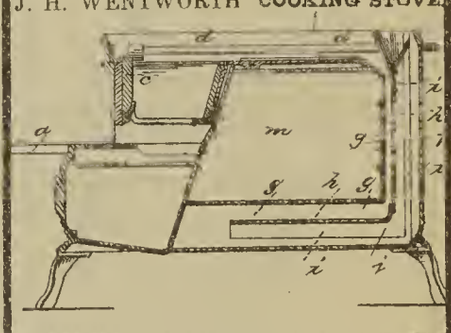
110,280. C. PECK. ROCK DRILL.



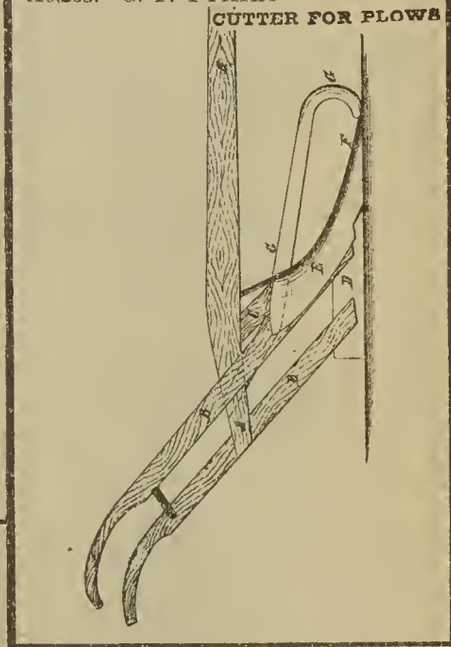
110,281. T. PEPPLER. GANG PLOW.



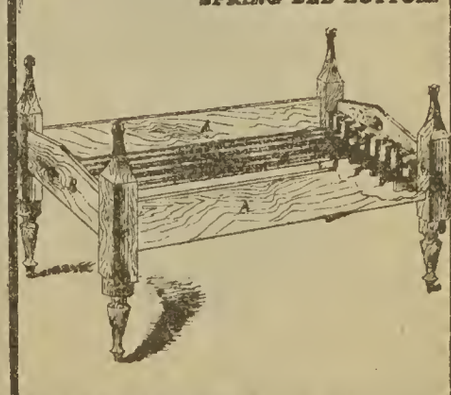
110,282. J. PRATT AND
J. H. WENTWORTH COOKING STOVE.



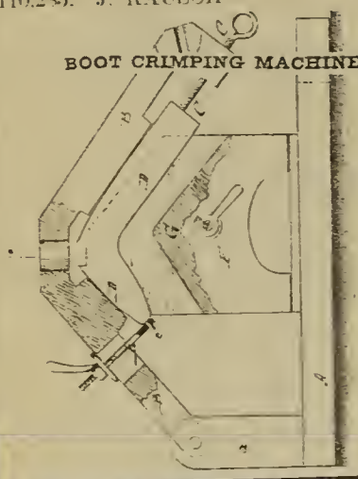
110,283. G. F. PYKIET
CUTTER FOR PLOWS



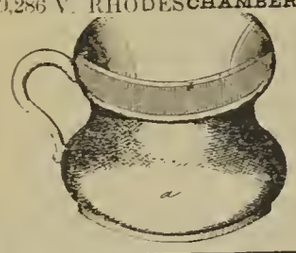
110,284. J. H. QUACKENBUSH
SPRING BED BOTTOM.



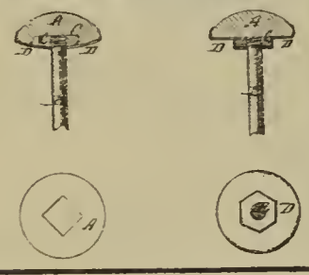
110,285. J. RAUSCH
BOOT CRIMPING MACHINE.



110,286 V. RHODES CHAMBER VESSEL.

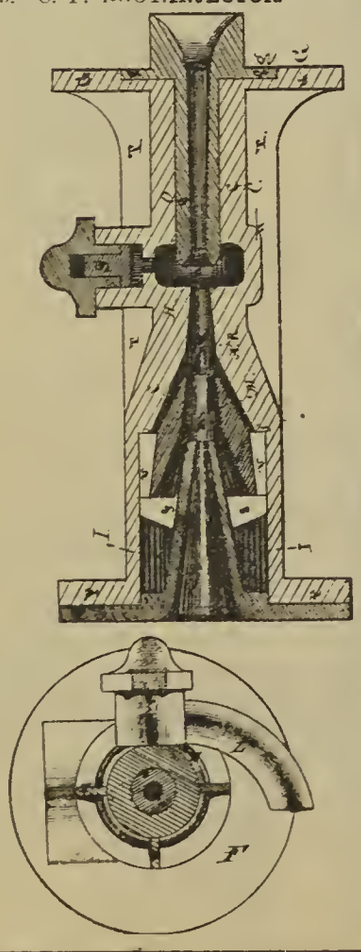


110,287. T. C. RICHARDS.
CONSTRUCTION OF ORNAMENTAL HEADED PICTURE NAILS.

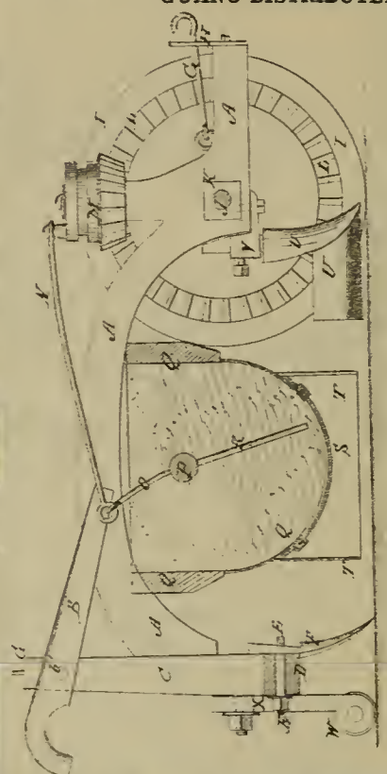


110,288. A. A. RIDDICK. LINIMENT FOR THE CURE OF RHEUMATISM.

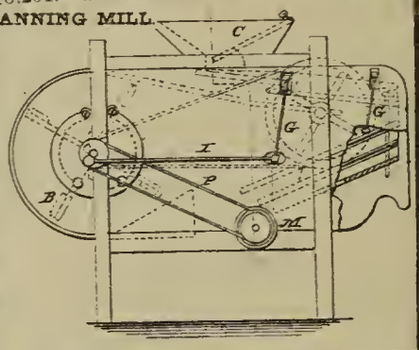
110,289. C. F. ROOT. INJECTOR.



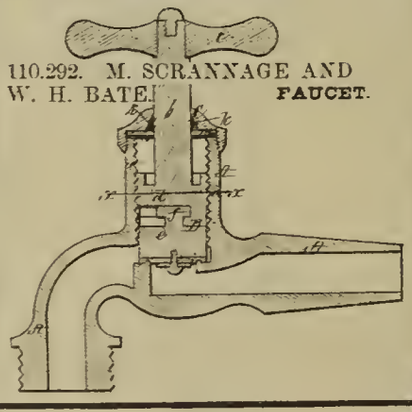
110,290. J. E. ROSS.
COMBINED COTTON PLANTER AND GUANO DISTRIBUTER.



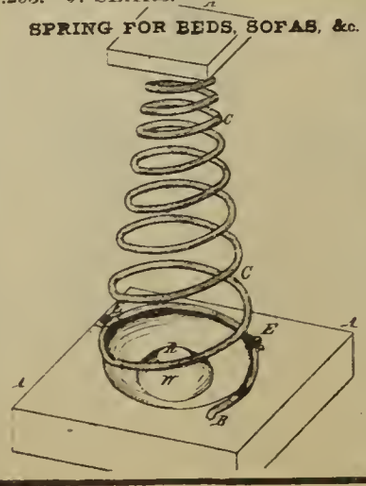
110,291. F. SAUER AND J. COERVER
FANNING MILL.



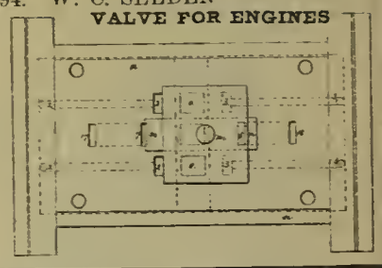
110,292. M. SCRANNAGE AND W. H. BATE.
FAUCET.



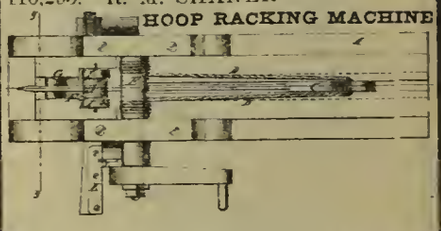
110,293. J. SEARS.
SPRING FOR BEDS, SOFAS, &c.



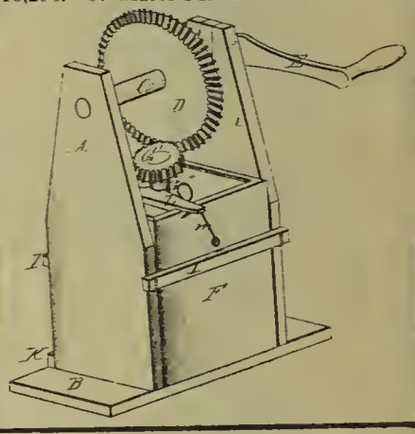
110,294. W. C. SELDEN
VALVE FOR ENGINES



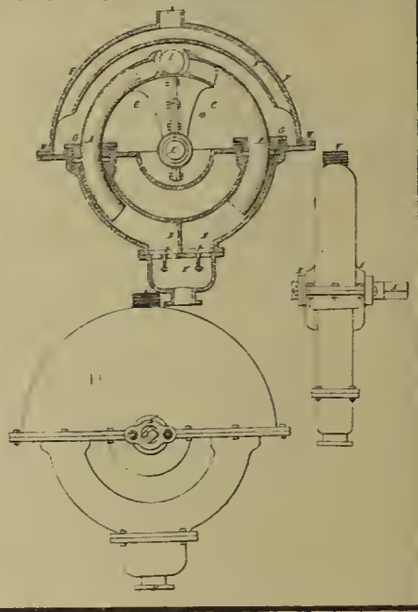
110,295. R. M. SHANER
HOOP RACKING MACHINE



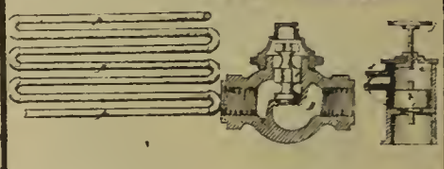
110,296. J. SHAPPELL. CHURN.



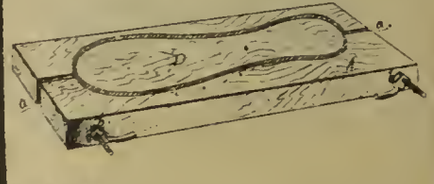
110,297. N. P. SHELDON PUMP.



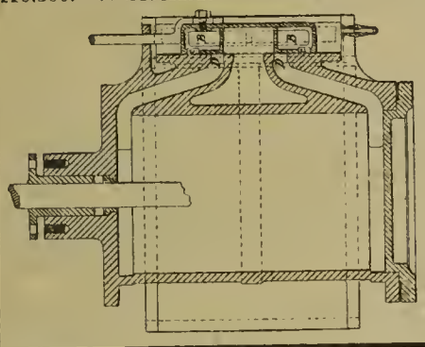
110,298. G. W. SHIELDS
STEAM GENERATOR



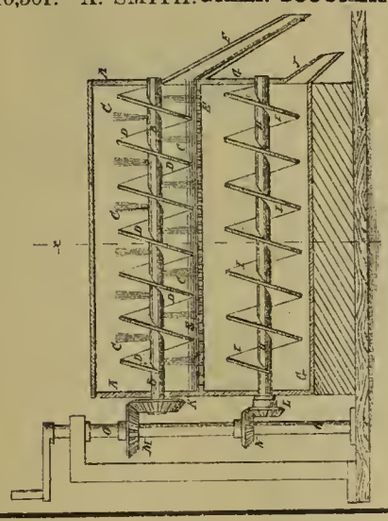
110,299. W. G. SLATER PRESS FOR FORMING SOLES FOR PACKS



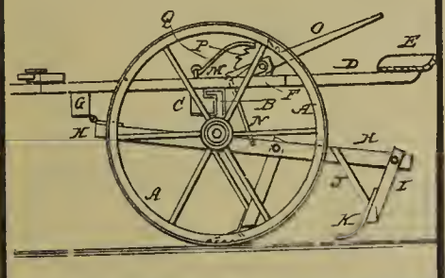
110,300. J. SMART. **SLIDE VALVE.**



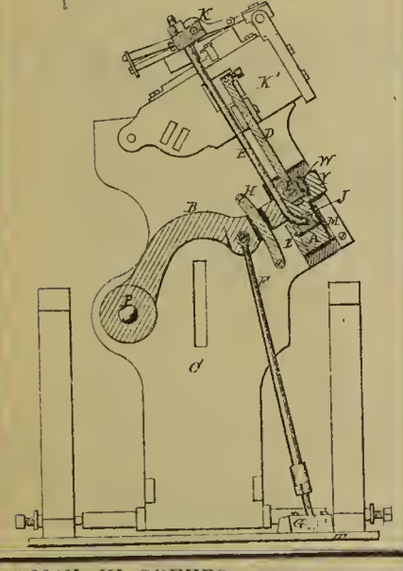
110,301. A. SMITH. **GRAIN SCOURER.**



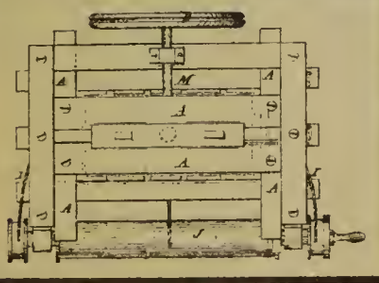
110,302. P. E. SMITH **CULTIVATOR.**



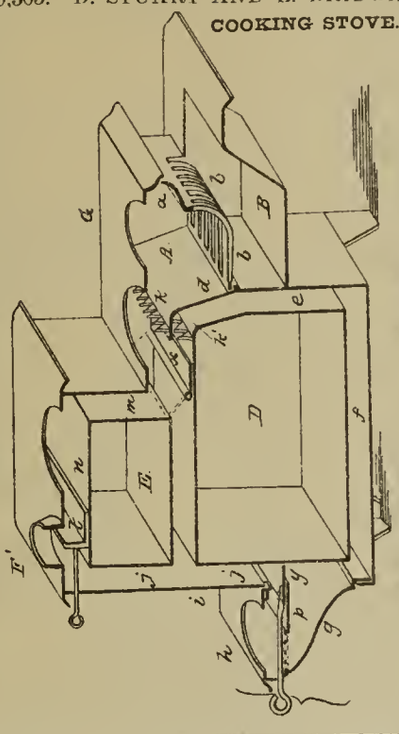
110,303. W. SPANG. **TYPE CASTING MACHINE.**



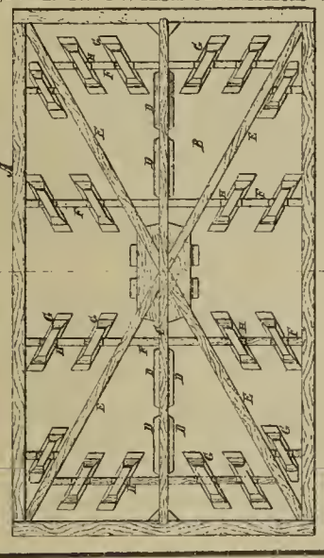
110,304N. W. SPEERS **COTTON PRESS.**



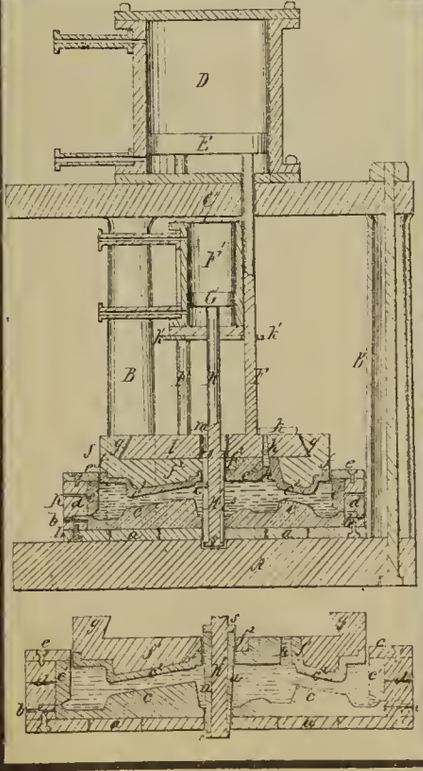
110,305. D. STUART AND L. BRIDGE. **COOKING STOVE.**



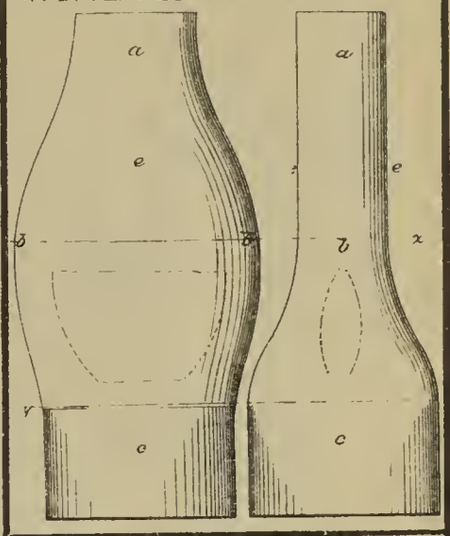
110,306. I. N. SWASEY **BILLIARD TABLE.**



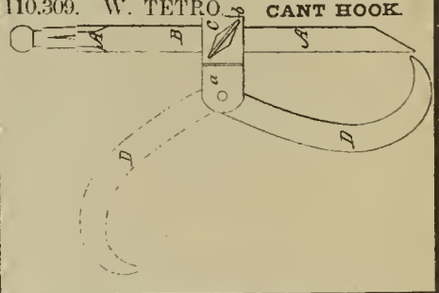
110,307. J. B. TARR. **MOLD FOR CASTING UNDER PRESSURE.**



110,308. G. W. TAYLOR AND W. P. JENNEY **LAMP CHIMNEY.**

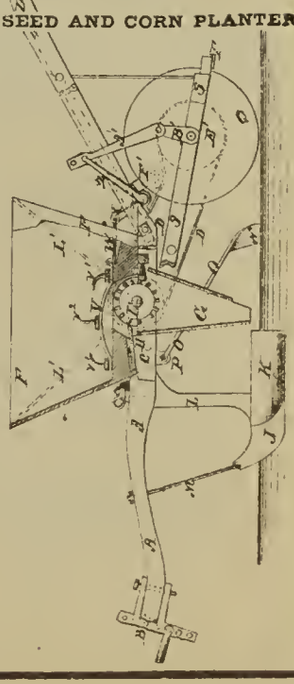


110,309. W. TETRO. **CANT HOOK.**

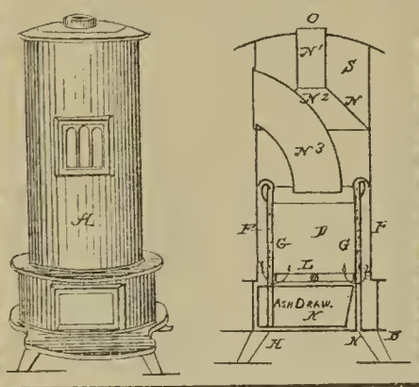


110,310. M. P. R. TILTON **PAD FOR CORSETS.**

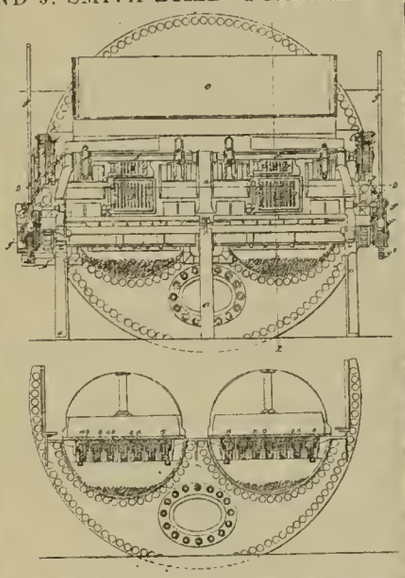
110,311. I. A. TOWERS **COTTON SEED AND CORN PLANTER.**



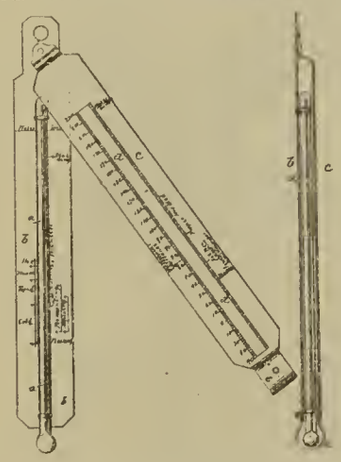
110,312. A. TRAVER. HEATING STOVE



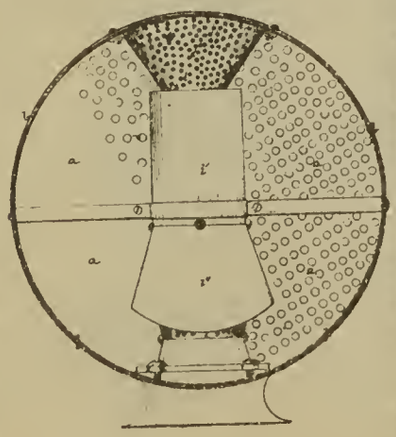
110,313 T. VICARS. SR., T. VICARS. JR AND J. SMITH BOILER FURNACE.



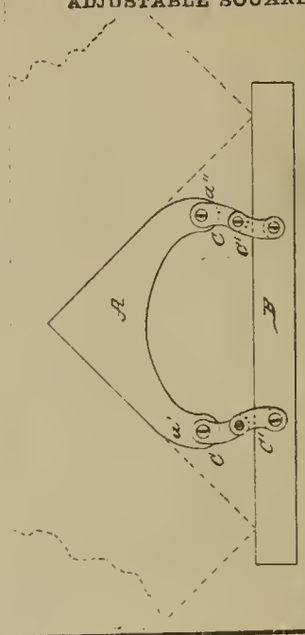
110,314. J. D. WARD THERMOMETER.



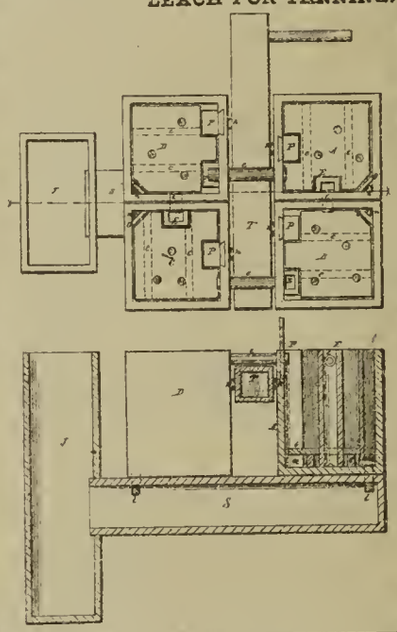
110,315 J. WEIDMAN, J. MAJOR, AND J. J. SAMPLE. SPARK ARRESTER.



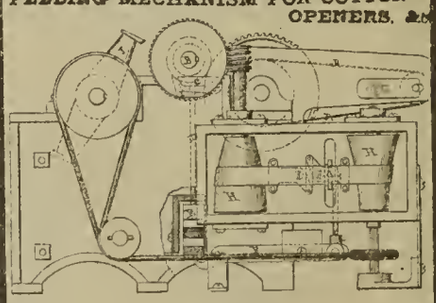
110,316. S. F. WESNER ADJUSTABLE SQUARE.

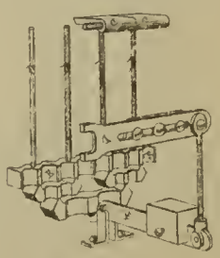


110,317. W. T. H. WHARTON LEACH FOR TANNING.

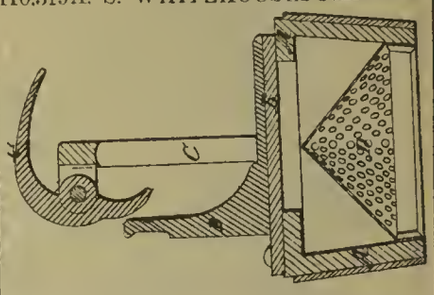


110,318. W. E. WHITEHEAD. FEEDING MECHANISM FOR COTTON OPENERS, &c.

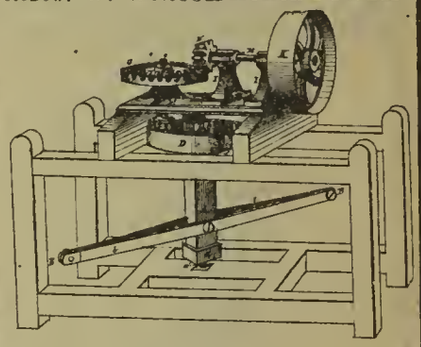




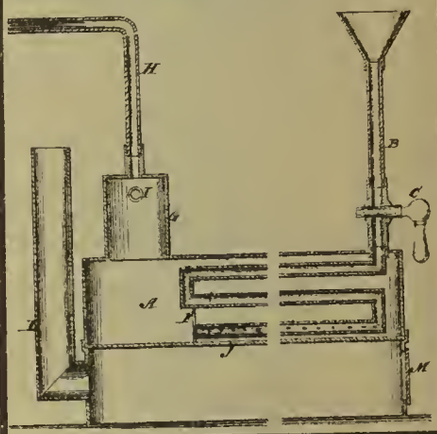
110,319 A. S. WHITEHOUSE PUMP BOX.



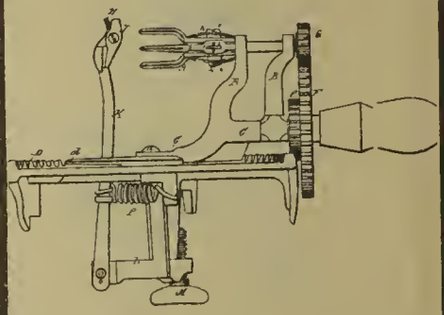
110,320 J. W. WILCOX HORSE POWER.



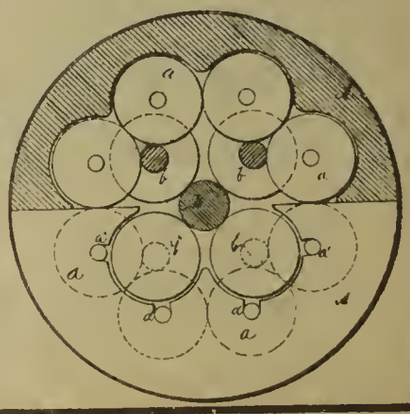
110,321. M. WOOD STEAM GENERATING APPARATUS.



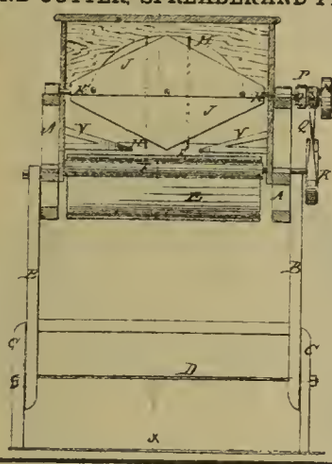
110,322 L. S. WOODBURY FRUIT PARER.



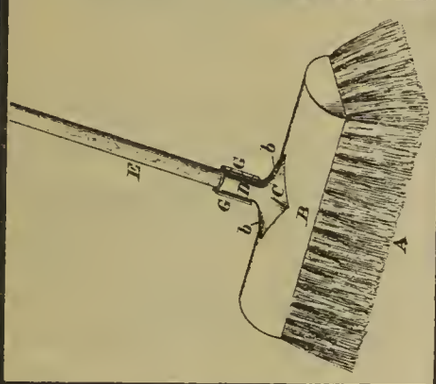
110,323. P. W. YARRELL. ANTI FRICTION JOURNAL.



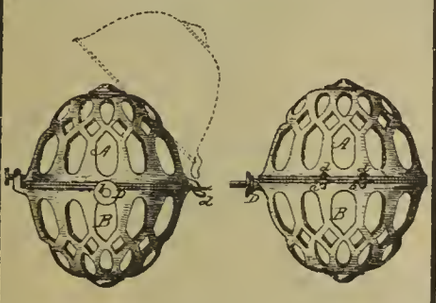
110,324 W. H. H. YOUNGS AUTOMATIC BAND CUTTER, SPREADER AND FEEDER



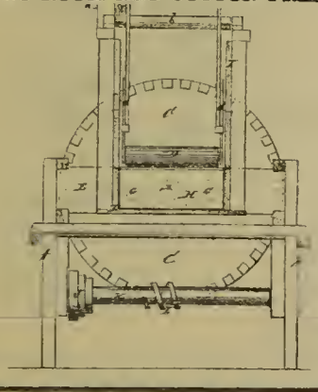
110,325. H. ACHEW SOCKET FOR BROOM HANDLES.



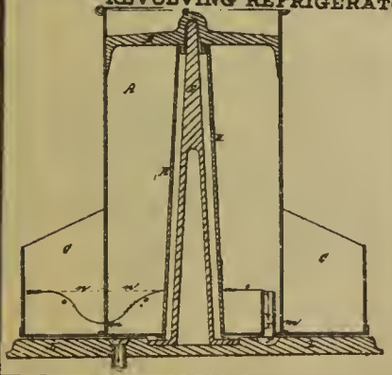
110,326. J. ADT. TWINE HOLDER.



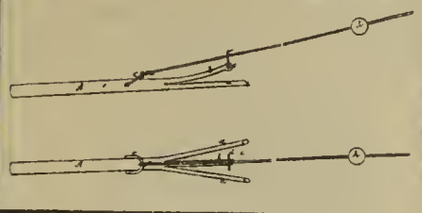
110,327. I. H. ALBERTSON COMBINED LINT ROOM AND COTTON PRESS



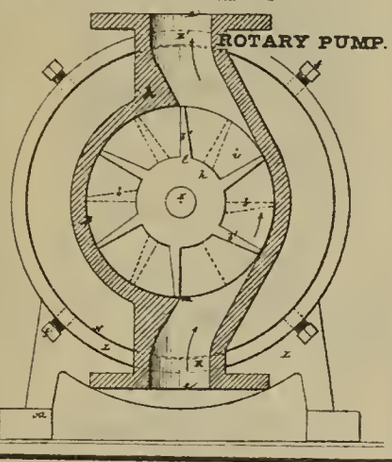
110,328. F. ALLEN. REVOLVING REFRIGERATOR



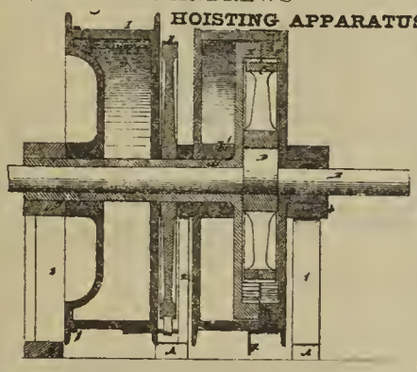
110,329. N. P. AND N. E. ALLEN GRAPNEL.



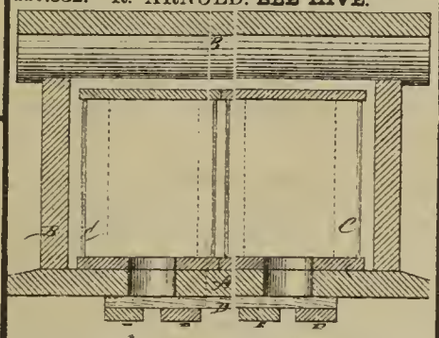
110,330. W. D. ANDREWS ROTARY PUMP.



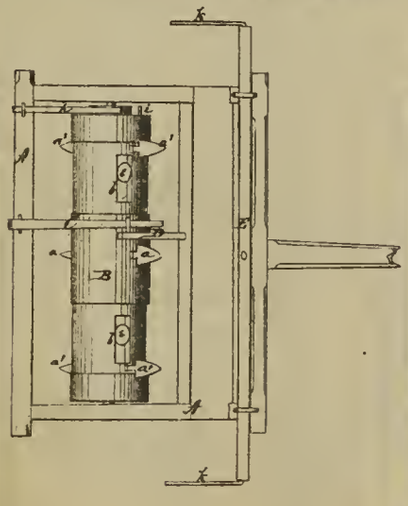
110,331. W. D. ANDREWS HOISTING APPARATUS



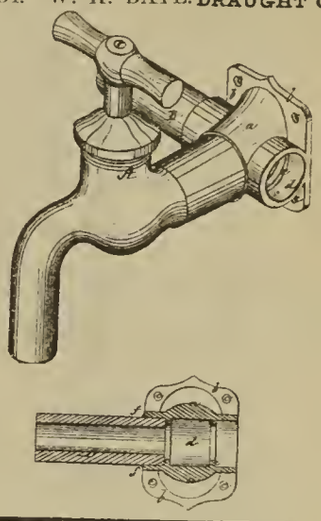
110,332. R. ARNOLD. BEE HIVE.



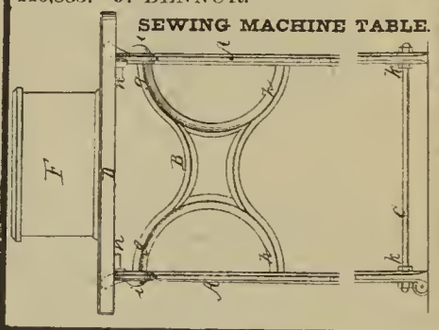
110,333. H. F. BAKER. COMBINED LAND ROLLER AND MARKER



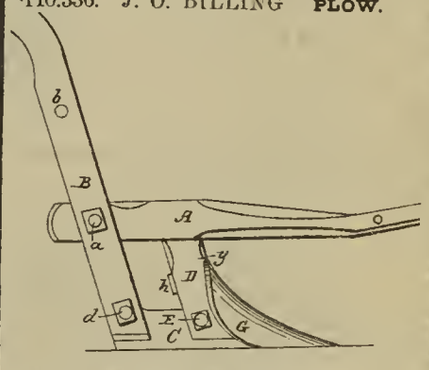
110,334. W. H. BATE. DRAUGHT COCK



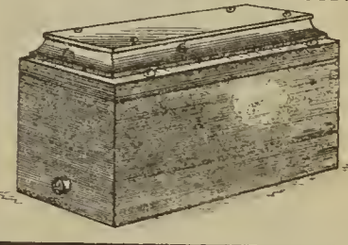
110,335. J. BENNOR. SEWING MACHINE TABLE.



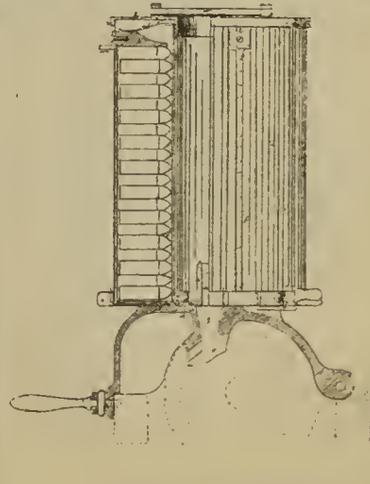
110,336. J. O. BILLING PLOW.



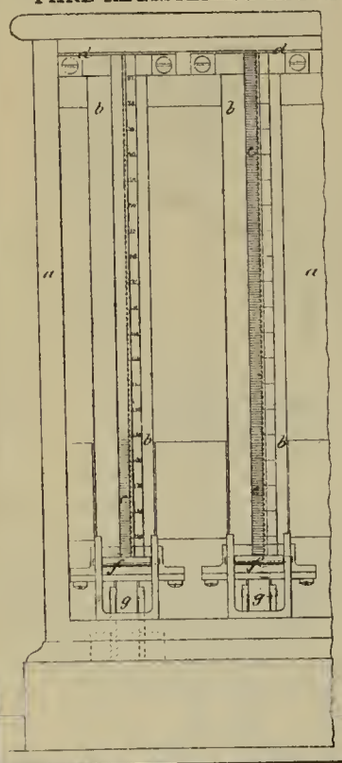
110,337. J. Y. BLACK CORPSE PRESERVING COFFIN



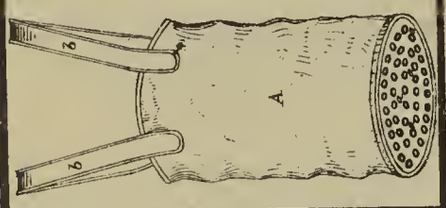
110,338. L. W. BROADWELL. FEEDER FOR REPEATING FIRE ARMS.



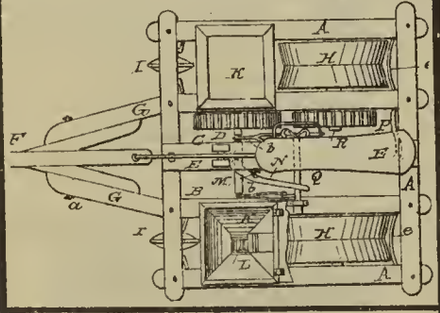
110,339. C. A. CALVERT.
FARE REGISTERING APPARATUS.



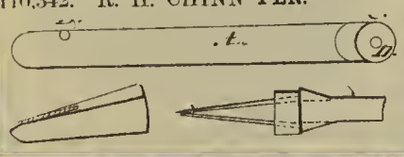
110,340. J. CARTER.
SAFETY CASE FOR FRUIT JARS.



110,341. J. T. CARTER AND M. B. WILLIAMSON CORN PLANTER

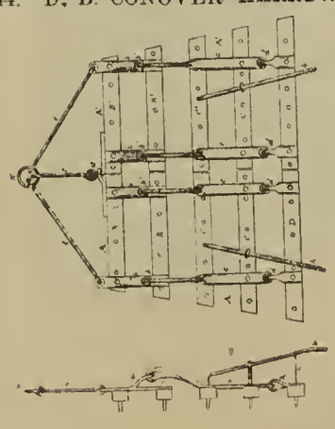


110,342. R. H. CHINN PEN.



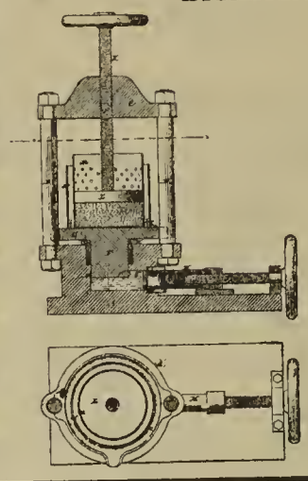
110,343 J. H. COLE ROOFING MATERIAL

110,344. D. B. CONOVER HARROW

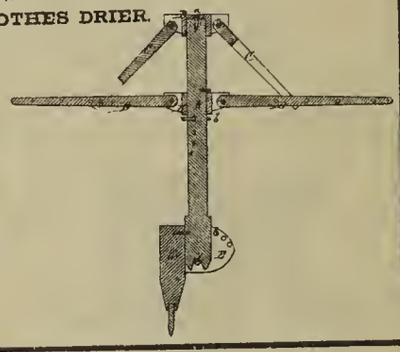


110,345. F. J. DELKER COMPOUND FOR PURIFYING MINE WATER

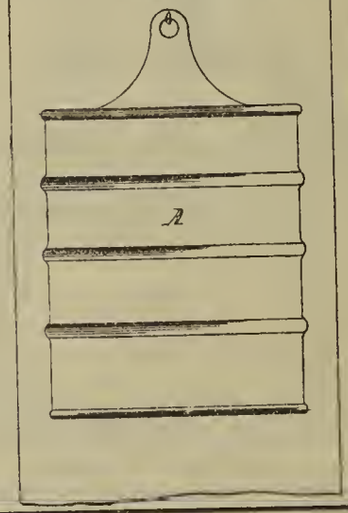
110,346. J. A. DESGOFFE.
HYDRAULIC PRESS.



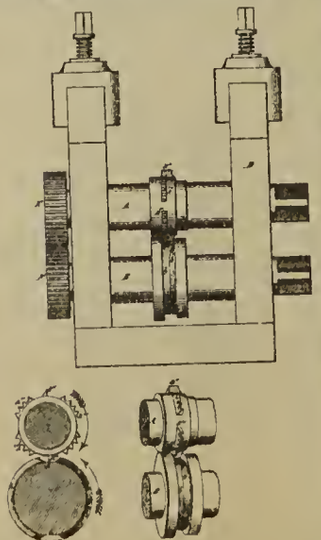
110,347. J. T. ELLIOTT
CLOTHES DRIER.



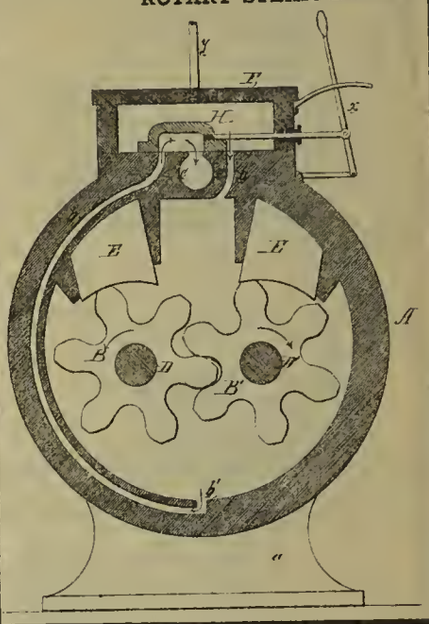
110,348. G. M. FILLMORE.
MILK RECEPTACLE.



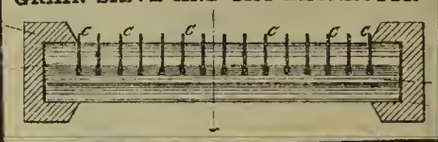
110,349. C. L. FITZHUGH ROLL FOR FORMING HORSESHOE BLANKS.



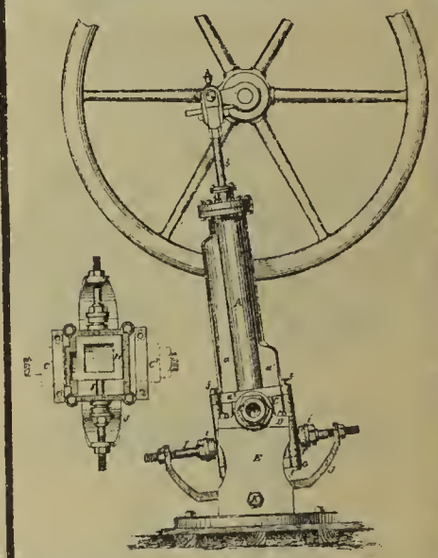
110,350. G. S. FOLLENSBEE
ROTARY STEAM ENGINE.



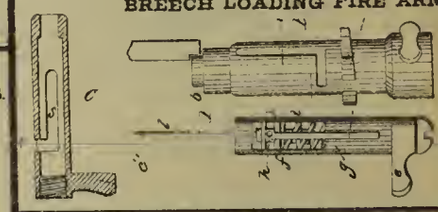
110,351. T. FOLLETT
GRAIN SIEVE AND OAT EXTRACTOR



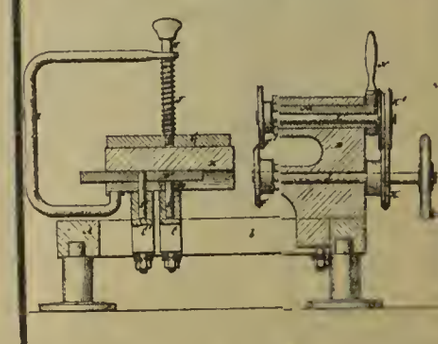
110,352. I. N. FORRESTER
OSCILLATING STEAM ENGINE.



110,353. S. GERNGROSS.
BREECH LOADING FIRE ARM.

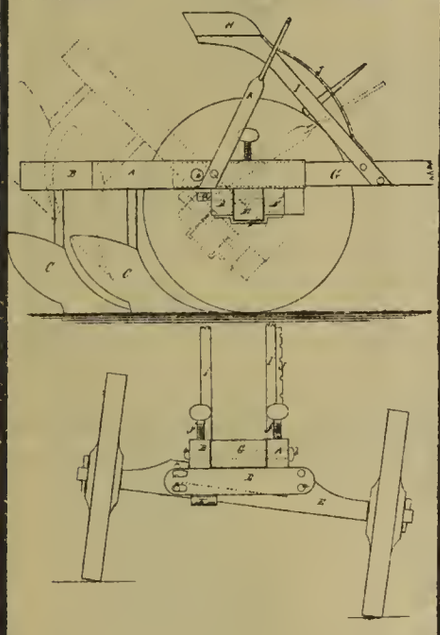


110,354. W. D. GRIMSHAW
MACHINE FOR CUTTING SHEET METAL TO AN OVAL FORM.

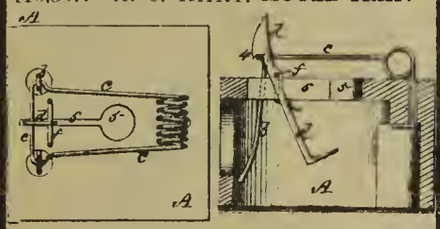


110,355. J. HAFENEGGER
EXPLOSIVE COMPOUND.

110,356. J. HARRIS. **GANG PLOW.**

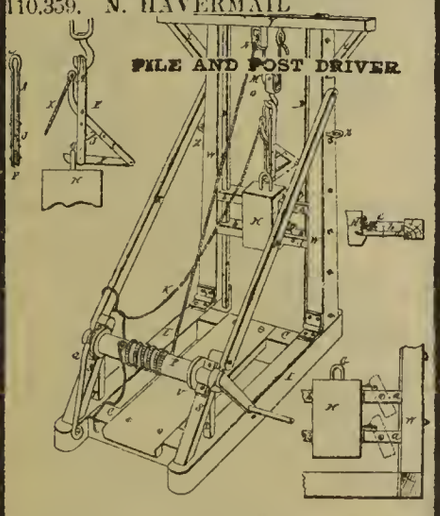


110,357. H. C. HART. **MOUSE TRAP.**

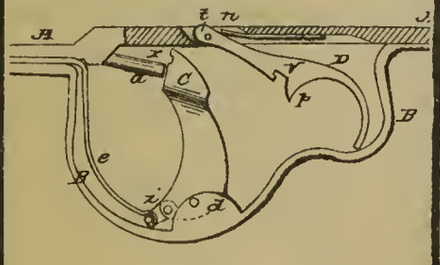


110,358. J. T. HAVILAND.
HANDLE FOR CUTLERY, TOOLS, &c.

110,359. N. HAVERMAIL
PILE AND POST DRIVER.

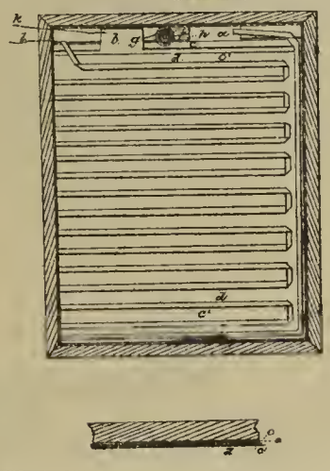


110,360. E. B. HENDEE. **GUN LOCK.**

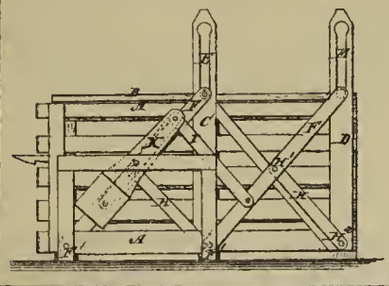


110,361. D. R. P. HILL
LUBRICATING OIL.

110,362 E. HOLMES AND H. C. ROOME
ELECTRO MAGNETIC ENVELOPE FOR SAFES, VAULTS, &c.

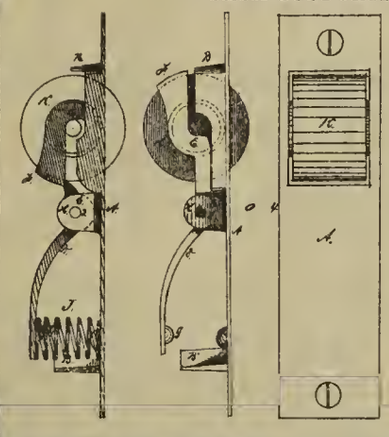


110,363. R. R. HOSKINS **GATE.**

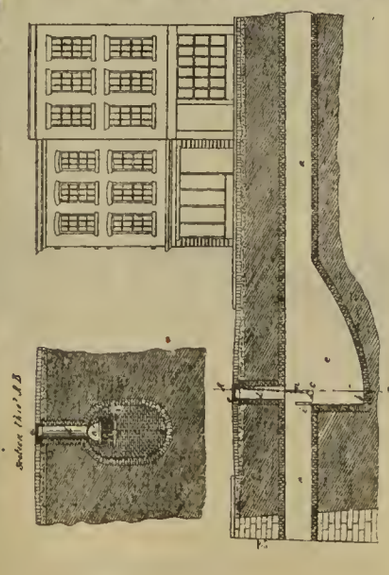


110,364. C. HOULKER.
PURIFYING OILS WHICH HAVE BEEN USED IN LUBRICATING MACHINERY.

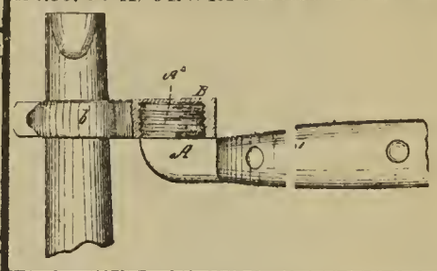
110,365. H. B. HUGUNIN
SASH SUPPORTER.



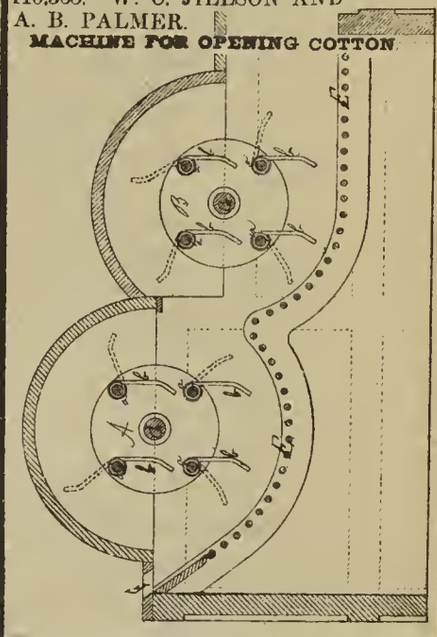
110,366. J. B. HYDE
UTILIZING SEWERAGE MATTERS.



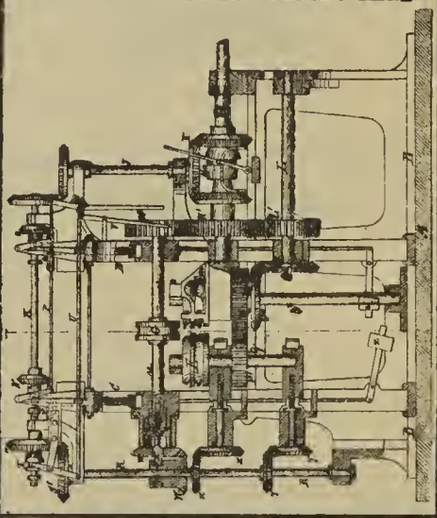
110,367 F. A. JEWETT **THILL COUPLING.**



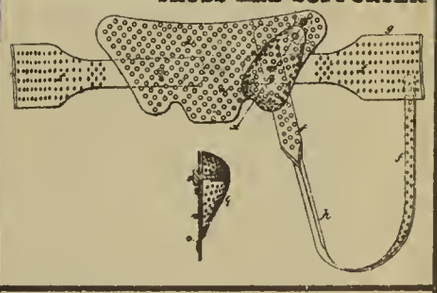
110,368. W. C. JILLSON AND A. B. PALMER.
MACHINE FOR OPENING COTTON.



110,369. J. H. JONES **ROLLING MILL.**

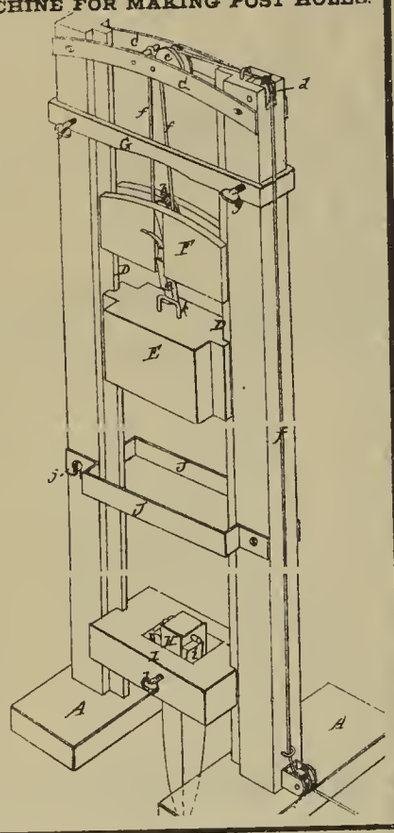


110,370. N. JONES
TRUSS AND SUPPORTER.

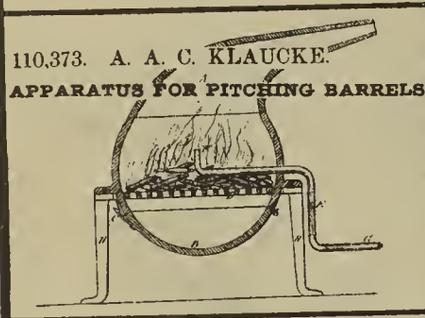


110,371 G. W. JOPE AND W. BUNTON
ROLLED BAR FOR PLOW BEAM BLANKS.

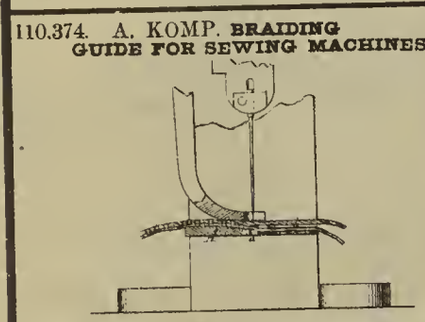
110,372. J. M. KIRKPATRICK
MACHINE FOR MAKING POST HOLES.



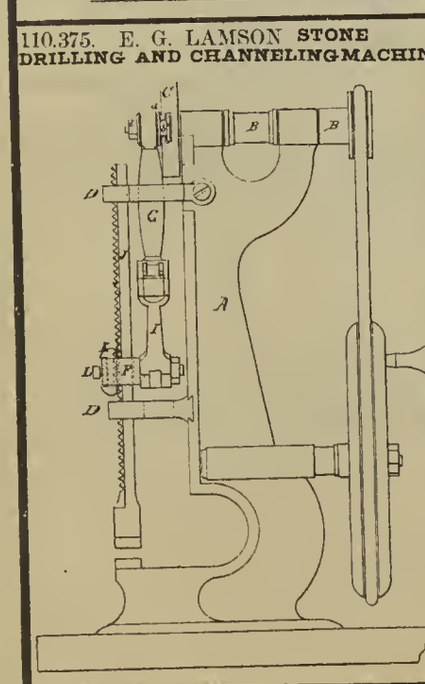
110,373. A. A. C. KLAUCKE.
APPARATUS FOR PITCHING BARRELS



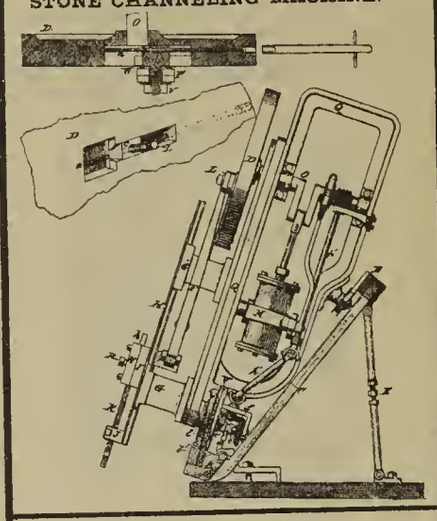
110,374. A. KOMP. BRAIDING GUIDE FOR SEWING MACHINES.



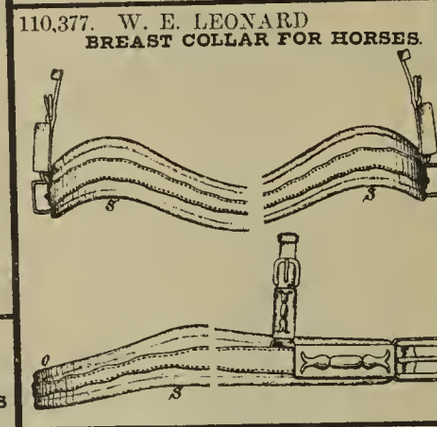
110,375. E. G. LAMSON STONE DRILLING AND CHANNELING MACHINE



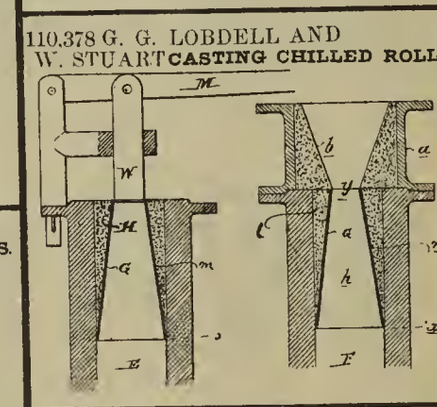
110,376. E. G. LAMSON
STONE CHANNELING MACHINE.



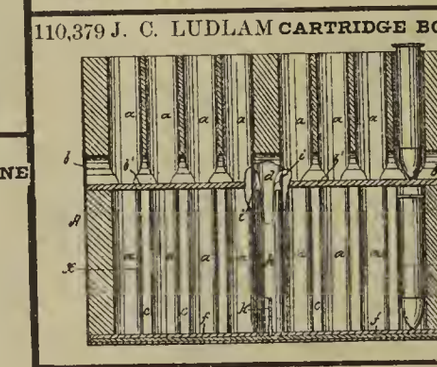
110,377. W. E. LEONARD
BREAST COLLAR FOR HORSES.



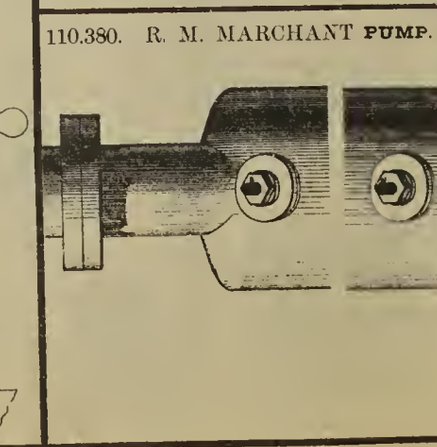
110,378 G. G. LOBDELL AND W. STUART CASTING CHILLED ROLLS



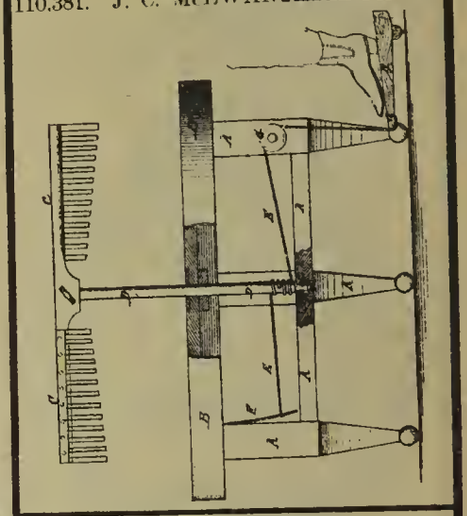
110,379 J. C. LUDLAM CARTRIDGE BOX



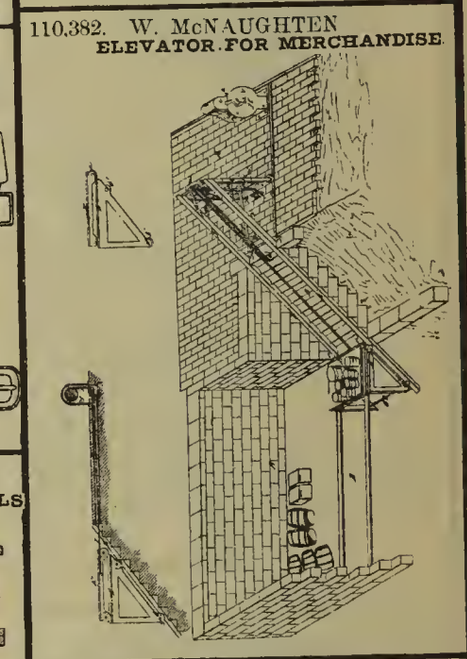
110,380. R. M. MARCHANT PUMP.



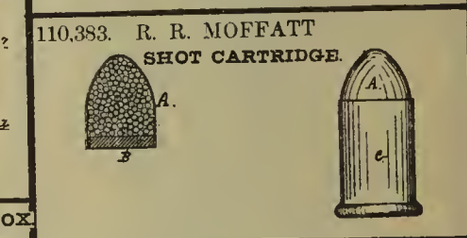
110,381. J. C. McEWAN TABLE FAN.



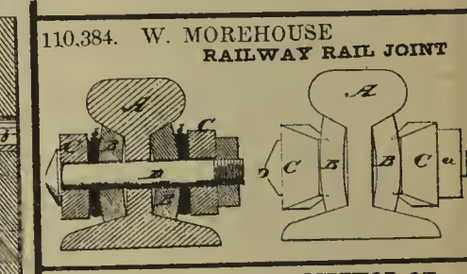
110,382. W. McNAUGHTEN
ELEVATOR FOR MERCHANDISE.



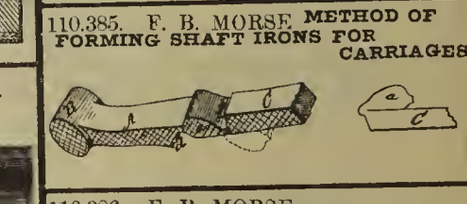
110,383. R. R. MOFFATT
SHOT CARTRIDGE.



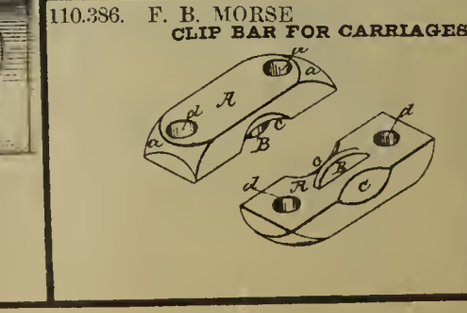
110,384. W. MOREHOUSE
RAILWAY RAIL JOINT



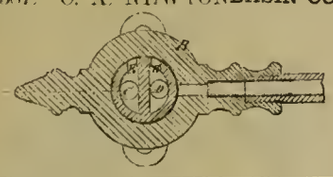
110,385. F. B. MORSE METHOD OF FORMING SHAFT IRONS FOR CARRIAGES.



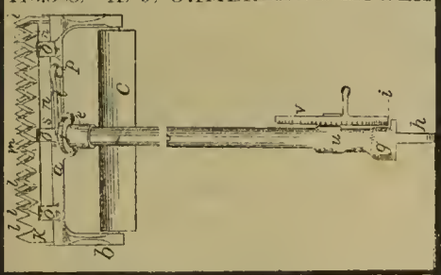
110,386. F. B. MORSE
CLIP BAR FOR CARRIAGES.



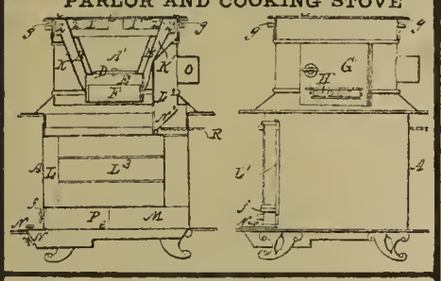
110,387. C. A. NEWTON BASIN COCK.



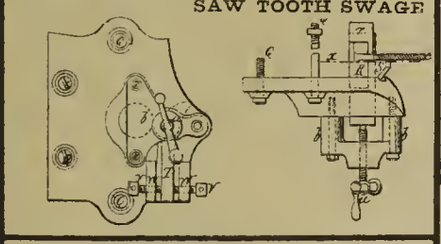
110,388. A. J. OHMER LAWN MOWER.



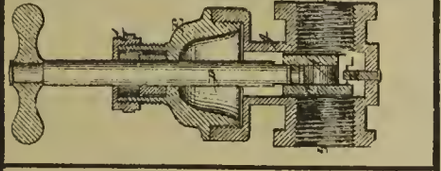
110,389 W. W. S. ORBETON COMBINED PARLOR AND COOKING STOVE



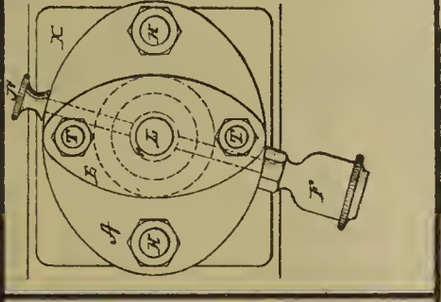
110,390. G. B. PATTEE SAW TOOTH SWAGE



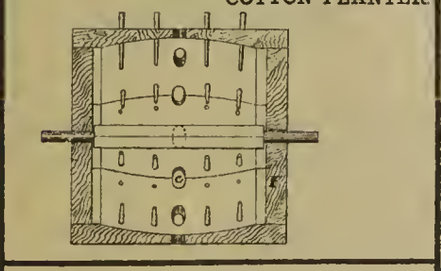
110,391. R. PILLING STOP VALVE.



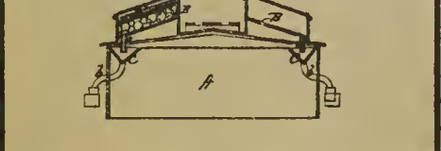
110,392 A. J. PRESCOTT STUFFING BOX



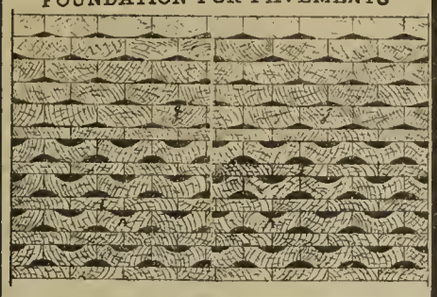
110,393. B. A. RAMSEY COTTON PLANTER.



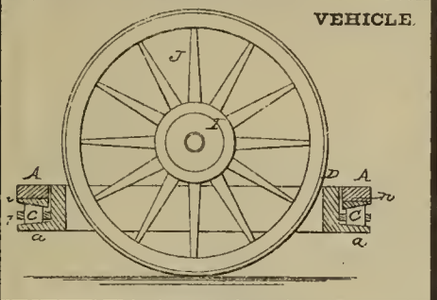
110,394. T. L. RANKIN REFRIGERATING CAR.



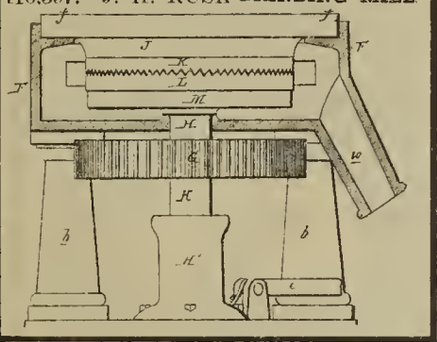
110,395. S. REEVE FOUNDATION FOR PAVEMENTS



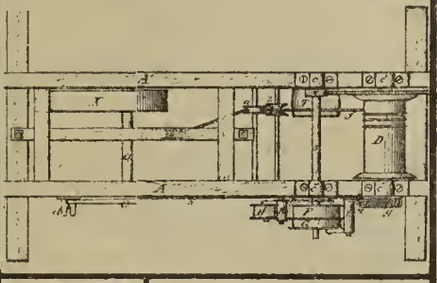
110,396. J. D. ROSS AND M. K. BURK VEHICLE.



110,397. J. H. RUSK GRINDING MILL.

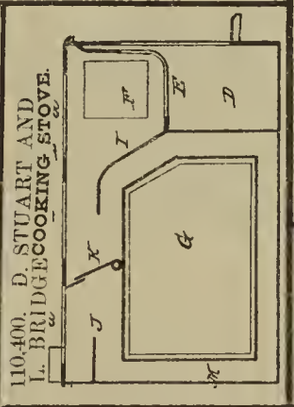


110,398. E. H. STEARNS MACHINE FOR TURNING LOGS

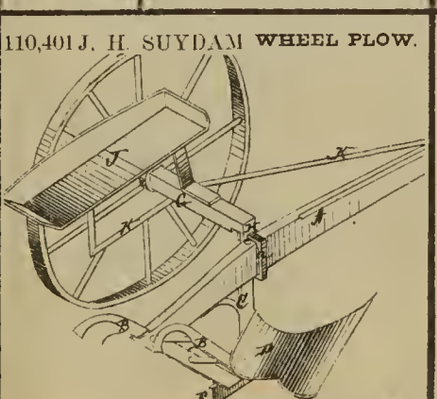


110,399. H. M. STOW PIPE AND TUBE FOR WATER AND GAS

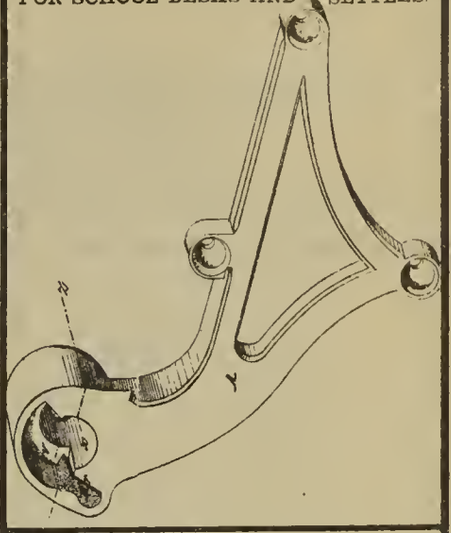
110,400. D. STUART AND L. BRIDGE COOKING STOVE.



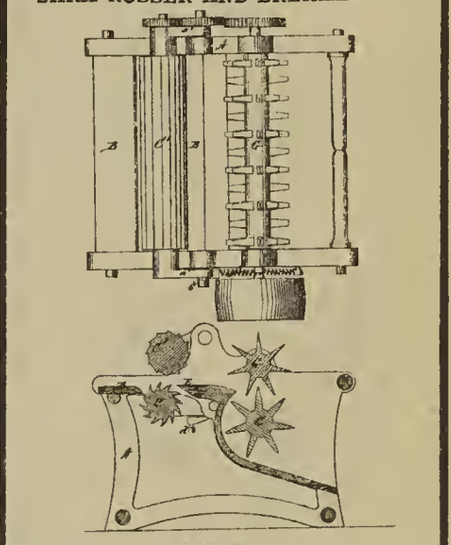
110,401 J. H. SUYDAM WHEEL PLOW.



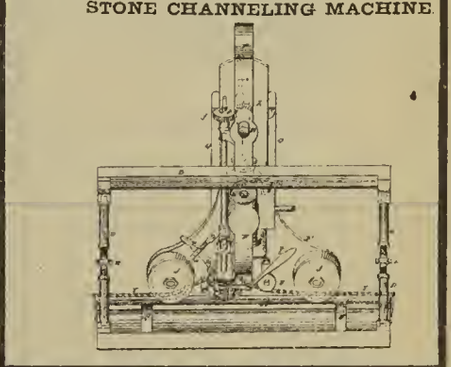
110,402. N. O. TIFFANY SEAT HINGE FOR SCHOOL DESKS AND SETTEES.



110,403. G. S. TILLINGHAST AND J. W. BURDWIN BARK ROSSER AND BREAKER.

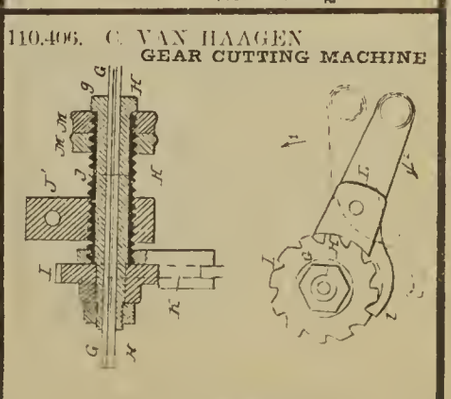


110,404. F. C. TREADWELL, Jr. STONE CHANNELING MACHINE.

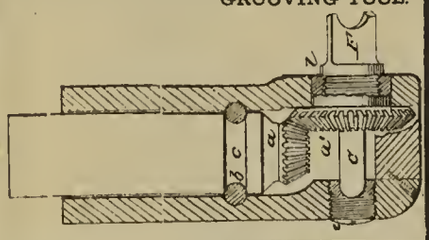


110,405. C. VAN HAAGEN PORTABLE DRILLING TOOL.

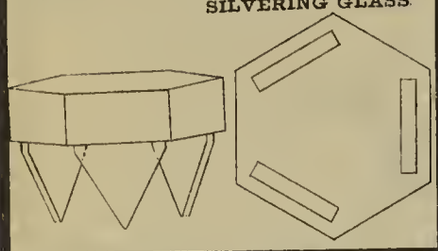
110,406. C. VAN HAAGEN GEAR CUTTING MACHINE



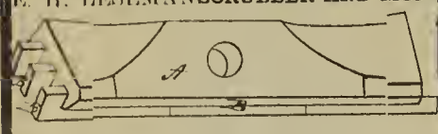
110,407. C. VAN HAAGEN GROOVING TOOL.



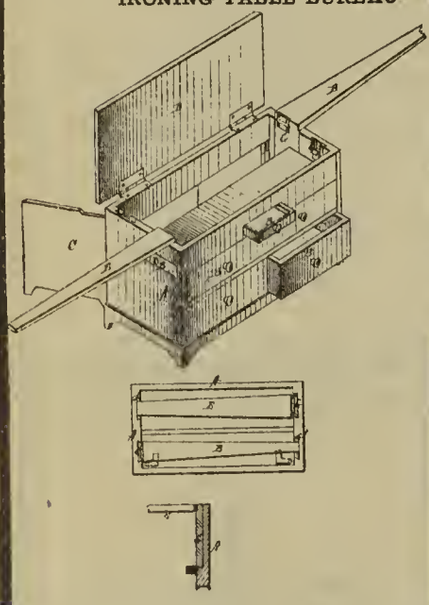
110,408. H. B. WALKER SILVERING GLASS.



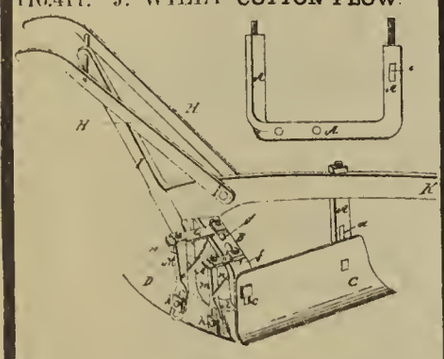
110,409. W. P. WALKER AND E. H. LESEMAN SCRUBBER AND MOP



110,410. M. WHITE IRONING TABLE BUREAU

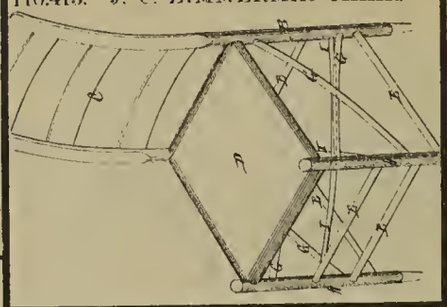


110,411. J. WILEY COTTON PLOW.



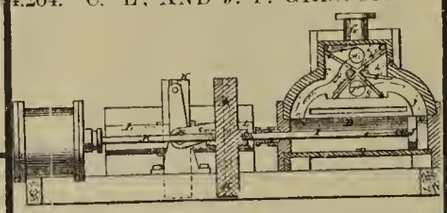
110,412. H. WILLARD LOCK.

110,413. J. C. ZIMMERMAN CHAIR.

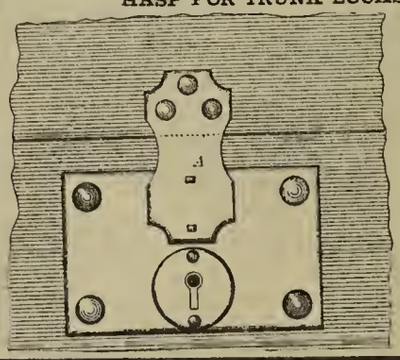


4,203. A. K. EATON MANUFACTURE OF PAPER PULP FROM STRAW, &c.

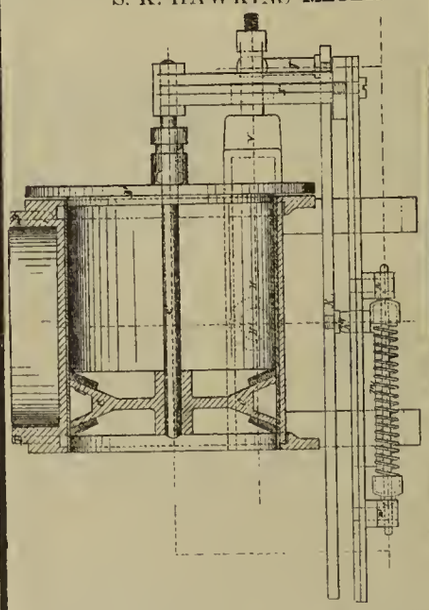
4,204. C. L. AND J. P. GRISCOM



4,205. L. HILLEBRAND HASP FOR TRUNK LOCKS

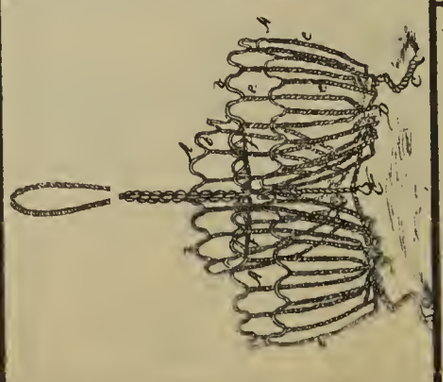


4,206. J. C. HORTON AND S. K. HAWKINS METER.

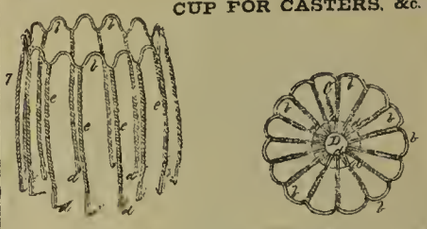


4,207. E. INGRAHAM CLOCK CASE.

4,208. C. H. LATHAM TABLE CASTER.

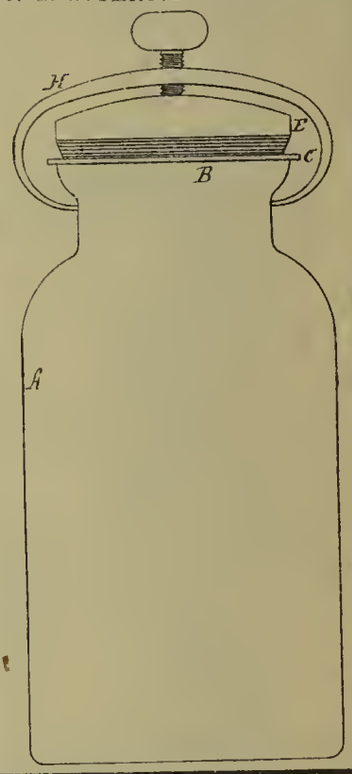


4,209. C. H. LATHAM CUP FOR CASTERS, &c.

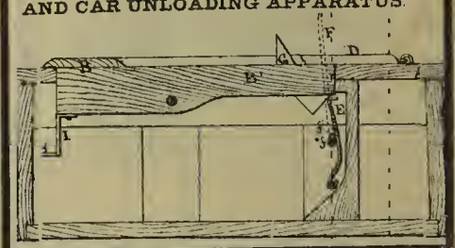


4,210. E. D. MURFEY MATERIAL FOR BEARINGS AND PACKINGS

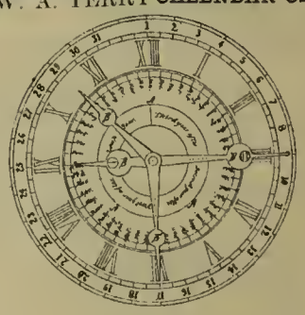
4,211. T. G. OTTERSON FRUIT JAR.



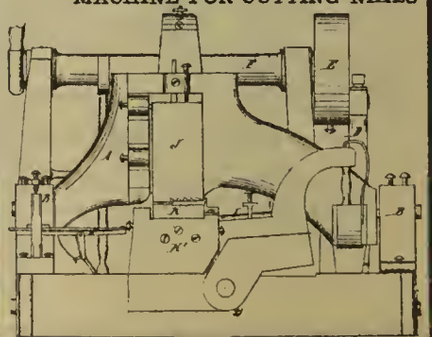
4,212. N. SWICKARD WAGON AND CAR UNLOADING APPARATUS.



4,213. W. A. TERRY CALENDAR CLOCK



4,214. A. P. WINSLOW MACHINE FOR CUTTING NAILS



ILLUSTRATIONS OF PATENTS

ISSUED FROM

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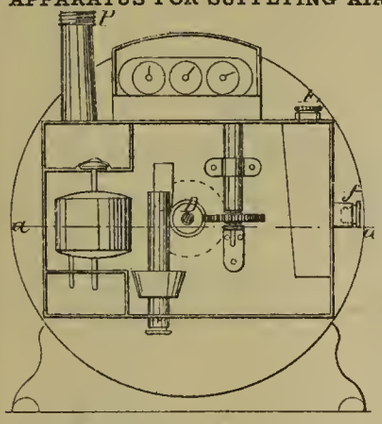
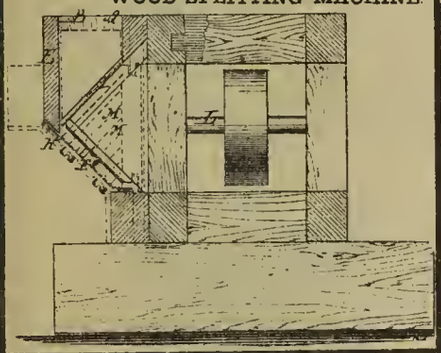
DECEMBER 27, 1870.

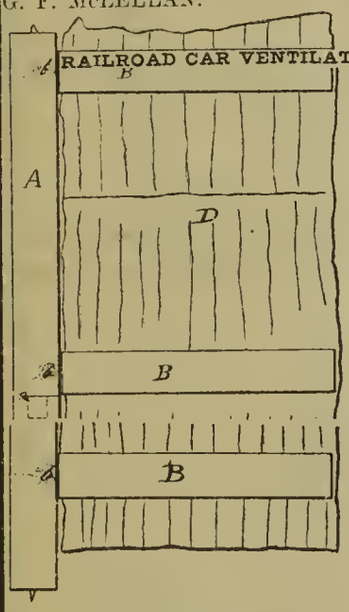
110,414. H. W. ADAMS
APPARATUS FOR SUPPLYING AIR.



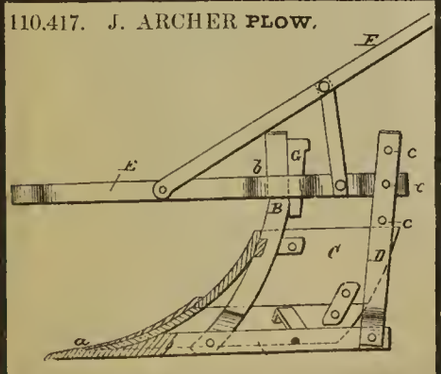
110,415. W. A. ALLEN
WOOD SPLITTING MACHINE.



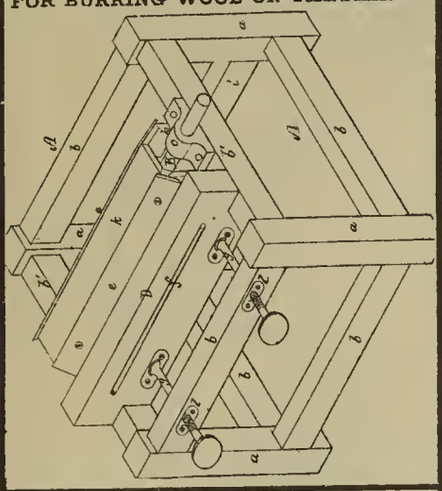
110,416. G. B. ARMSTRONG AND G. F. McLELLAN.
RAILROAD CAR VENTILATOR



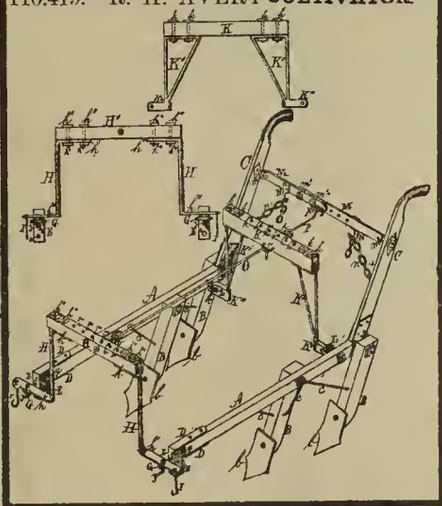
110,417. J. ARCHER PLOW.



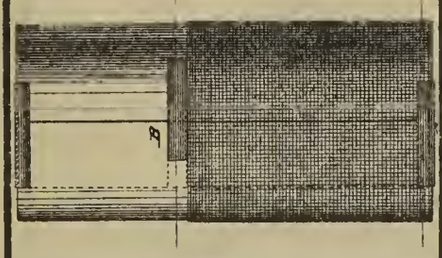
110,418. E. H. ASHCROFT MACHINE FOR BURRING WOOL ON THE SKIN



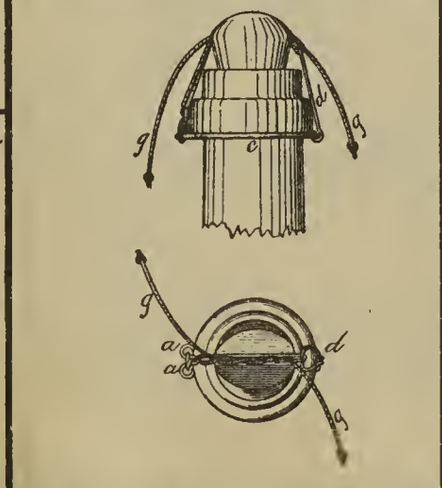
110,419. R. H. AVERY CULTIVATOR.



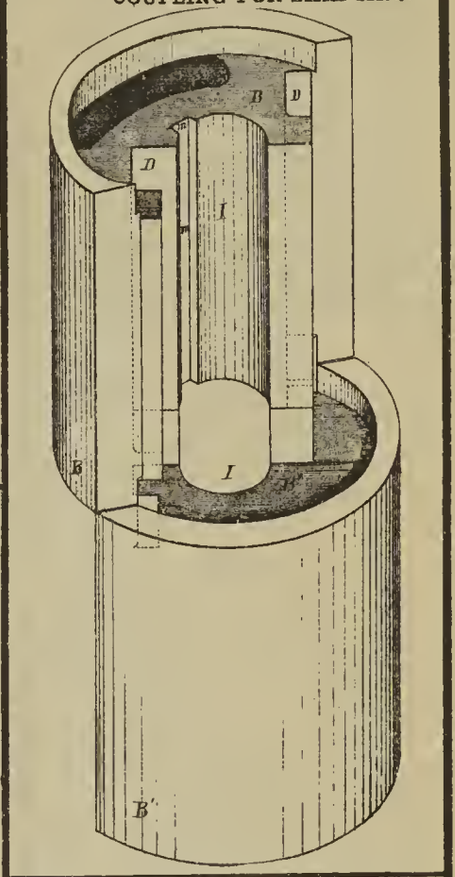
110,420. G. A. BARRON
COFFEE POT STRAINER



110,421B. BATES BOTTLE FASTENING.

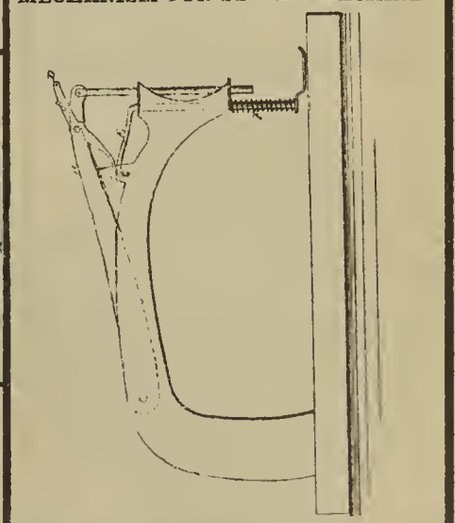


110,422. C. BEAN
COUPLING FOR SHAFTING.

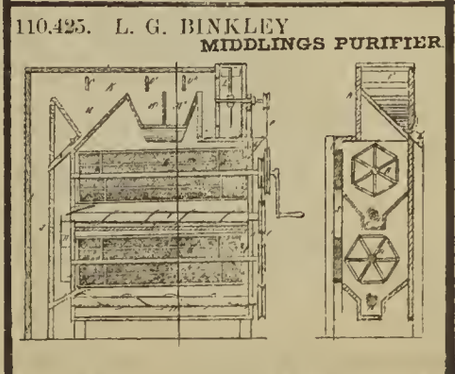


110,423. T. BECK MEDICAL BITTERS.

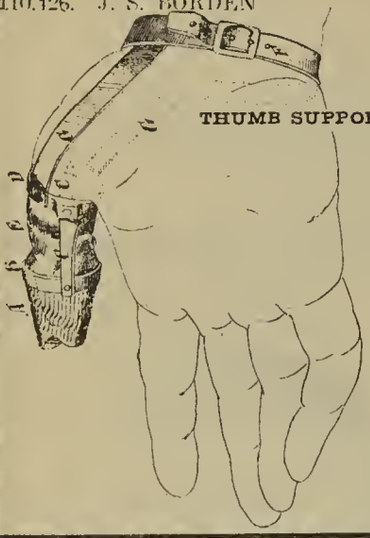
110,424. W. BENNETT TAKE UP MECHANISM FOR SEWING MACHINES.



110,425. L. G. BINKLEY
MIDDLINGS PURIFIER.

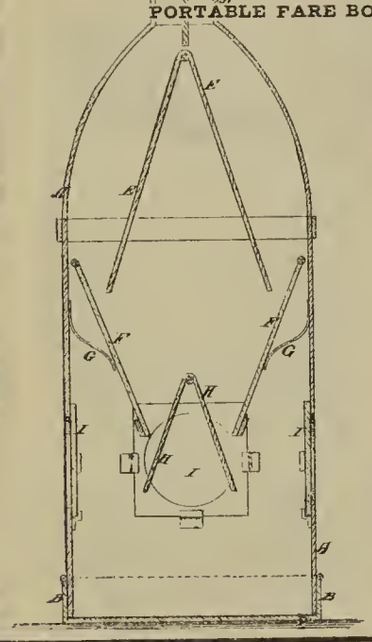


110,426. J. S. BORDEN
THUMB SUPPORTER.

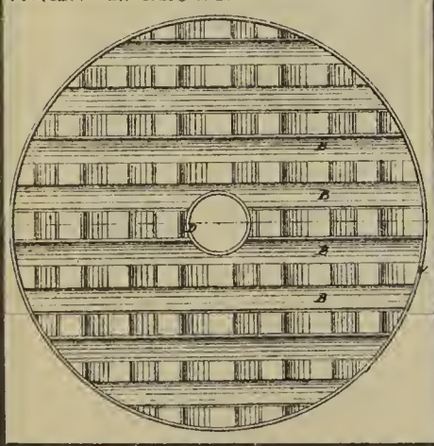


110,427. J. F. BOYNTON METHOD OF PRODUCING ILLUMINATING GAS.

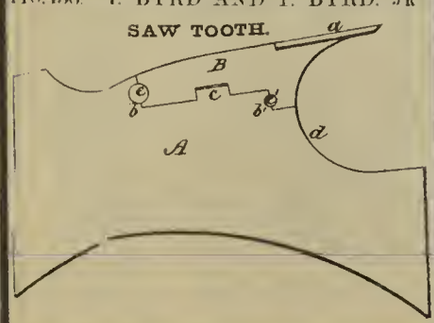
110,428. A. BRADLEY
PORTABLE FARE BOX



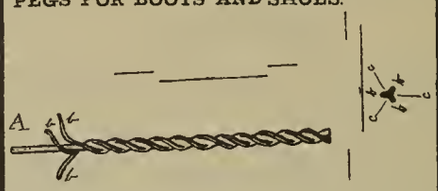
110,429. R. BROWN CHURN DASHER.



110,430. I. BYRD AND T. BYRD, JR
SAW TOOTH.

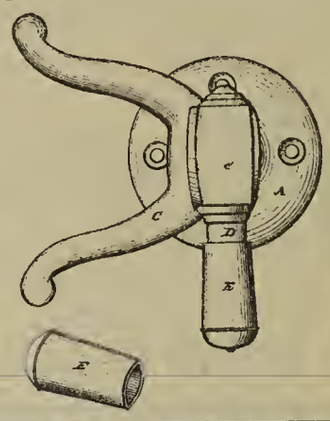


110,431. D. H. CAMPBELL AND E. WOODWARD WIRE FOR MAKING PEGS FOR BOOTS AND SHOES.

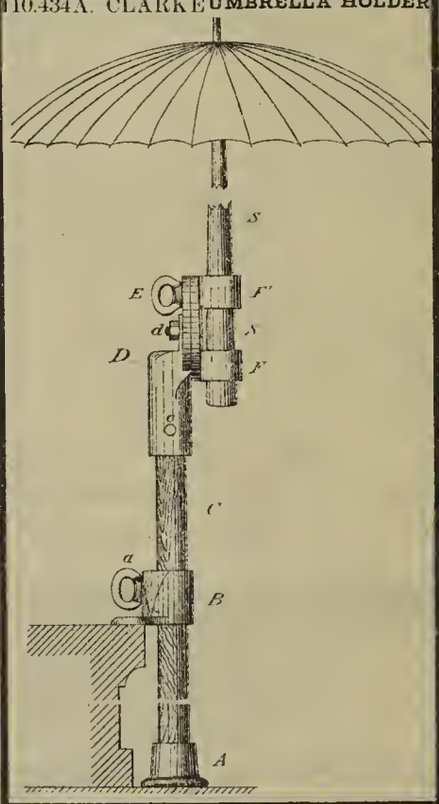


110,432. W. M. CANFIELD
LUBRICATING COMPOUND FOR STEAM AND OTHER PACKING.

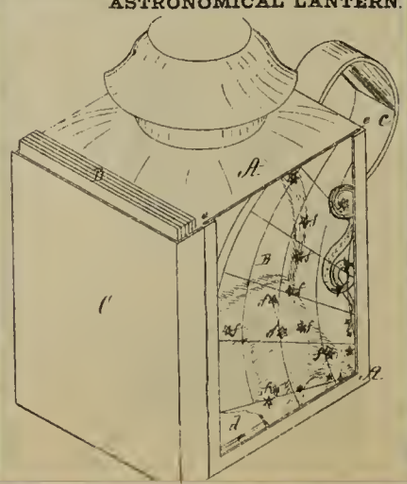
110,433. W. S. CHATHAM
BOOT JACK AND DOOR BUFFER.



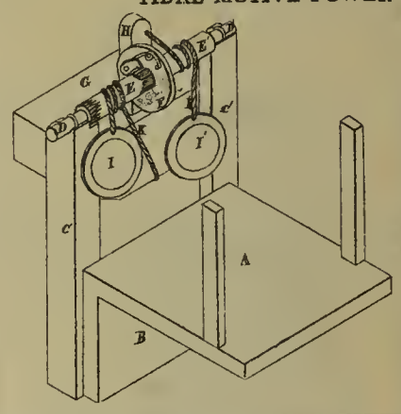
110,434A. CLARKE UMBRELLA HOLDER



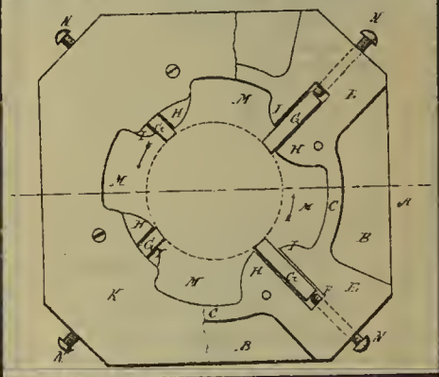
110,435 J. F. CLARKE.
ASTRONOMICAL LANTERN.



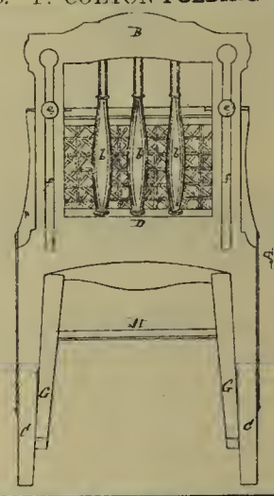
110,436. W. R. CLOSE.
TIDAL MOTIVE POWER



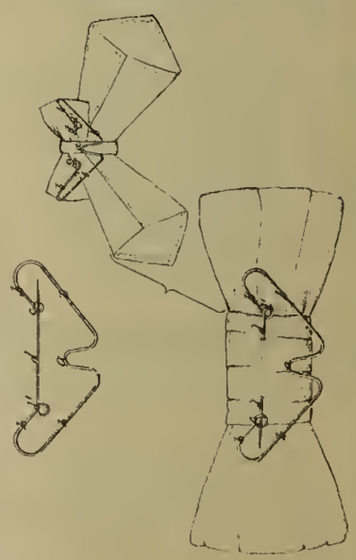
110,437. W. T. COLE.
DIE PLATE FOR SCREW CUTTING DIES



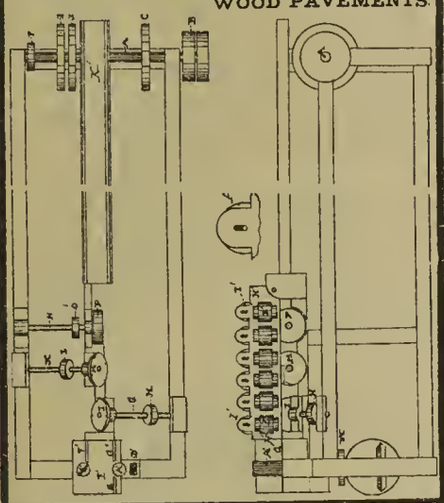
110,438. F. COLTON FOLDING CHAIR.



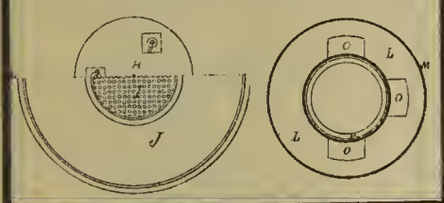
110,439. W. J. COWING
FASTENING FOR NECKTIES.



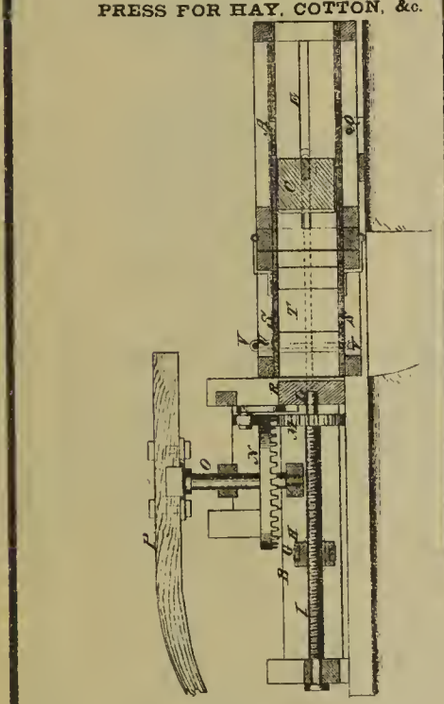
110,440. P. D. CUMMINGS. MACHINE FOR GROOVING BLOCKS FOR WOOD PAVEMENTS.



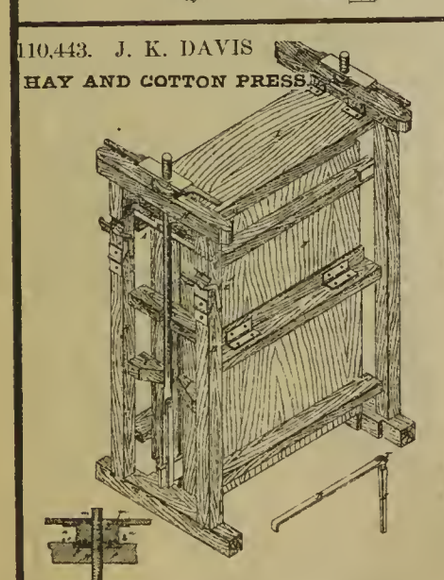
110,441. S. M. CUMMINS AND H. ISREAL SELF CLEANING LOCOMOTIVE SMOKE STACK.



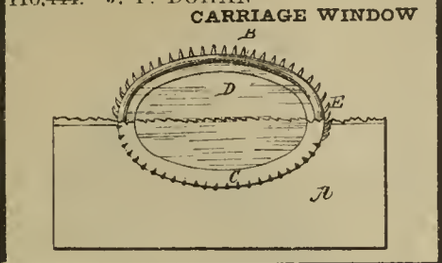
110,442. M. G. CUNNINGHAM PRESS FOR HAY, COTTON, &c.



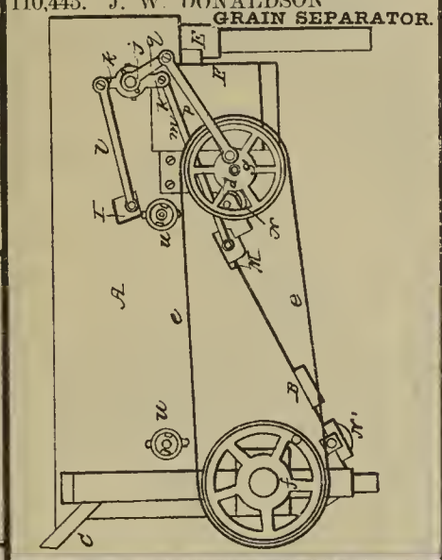
110,443. J. K. DAVIS HAY AND COTTON PRESS.



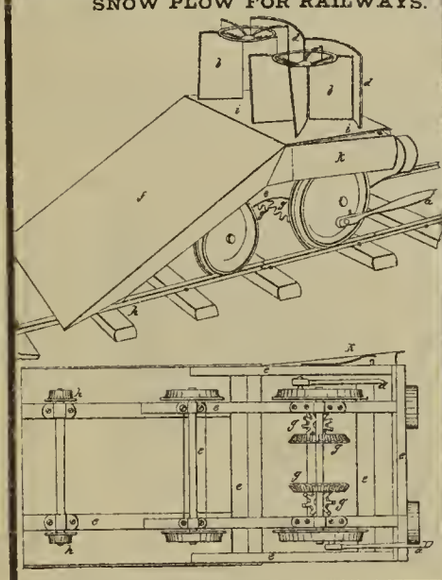
110,444. J. F. DOHAN CARRIAGE WINDOW



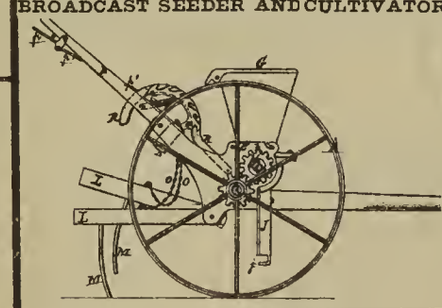
110,445. J. W. DONALDSON GRAIN SEPARATOR.



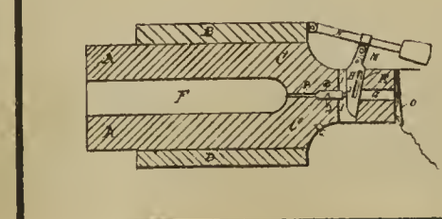
110,446. T. DOUGHERTY SNOW PLOW FOR RAILWAYS.



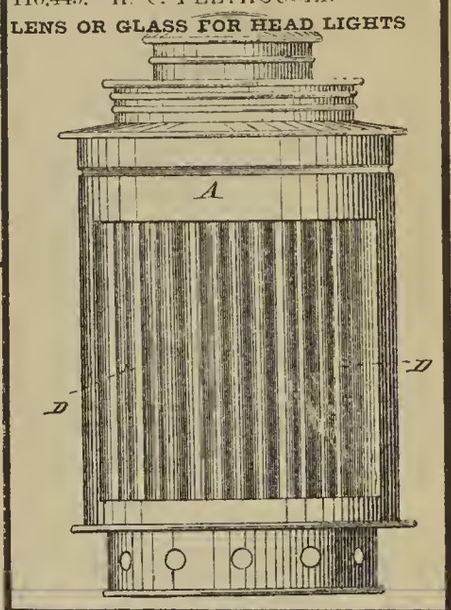
110,447. J. E. FARGO COMBINED BROADCAST SEEDER AND CULTIVATOR



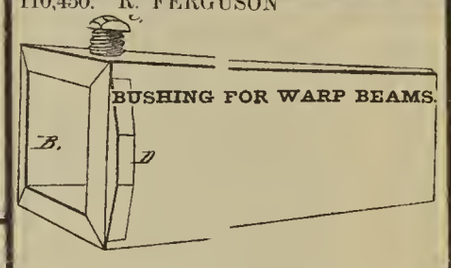
110,448. G. K. FARRINGTON DEVICE FOR SIGHTING AND FIRING ORDNANCE



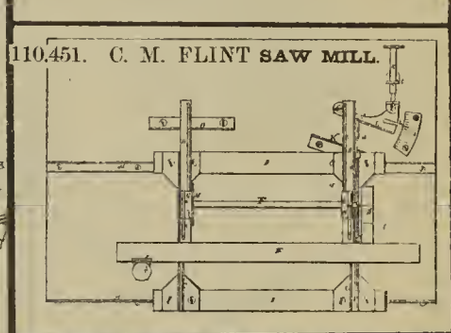
110,449. H. C. FELTHOUSEN LENS OR GLASS FOR HEAD LIGHTS



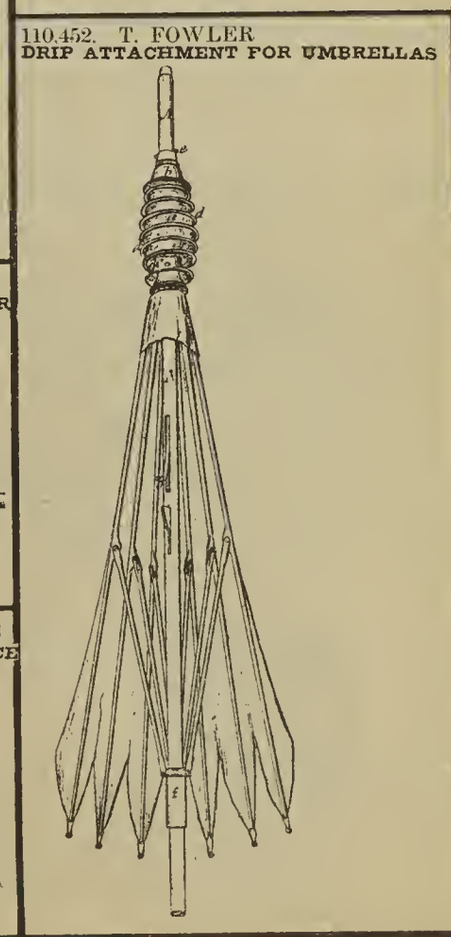
110,450. R. FERGUSON BUSHING FOR WARP BEAMS.



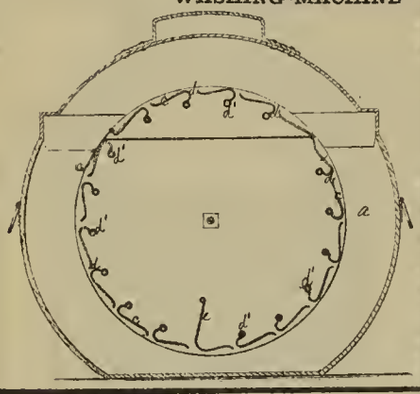
110,451. C. M. FLINT SAW MILL.



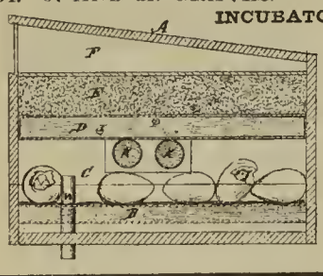
110,452. T. FOWLER DRIP ATTACHMENT FOR UMBRELLAS



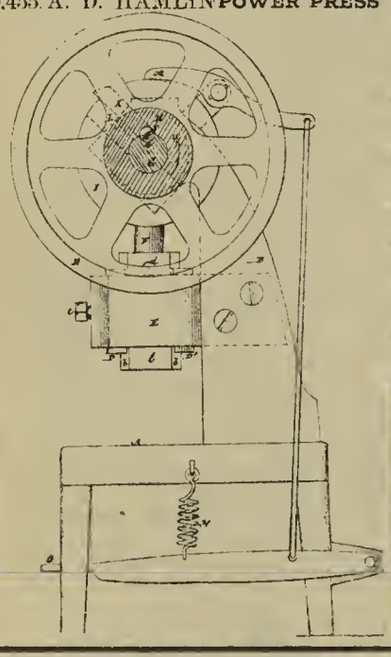
110,453. A. A. GARDNER. WASHING MACHINE



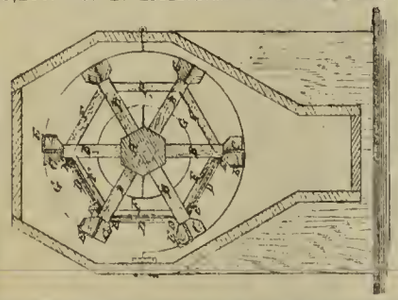
110,454. J. AND H. GRAVES. INCUBATOR.



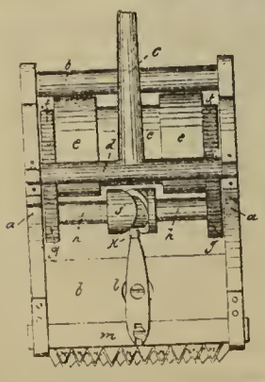
110,455. A. D. HAMLIN POWER PRESS



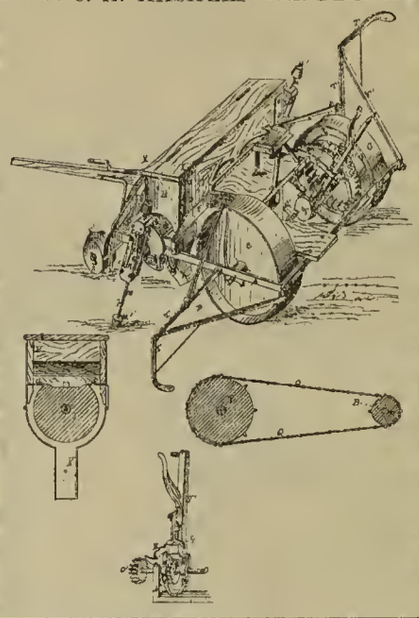
110,456. C. T. HANNA. FLOUR BOLT.



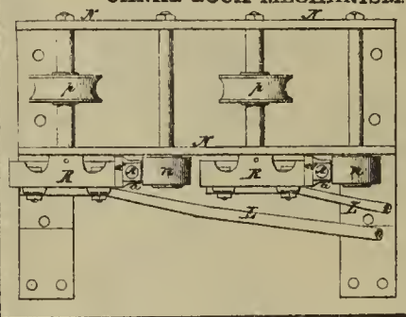
110,457. H. C. HART LAWN MOWER.



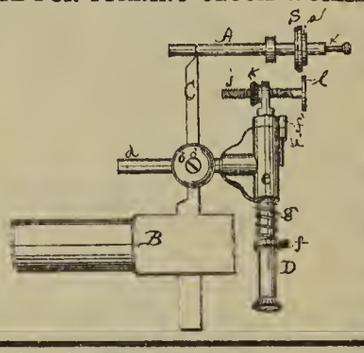
110,458 C. A. HASKELL CORN PLANTER



110,459. G. HEATH CANAL LOCK MECHANISM.

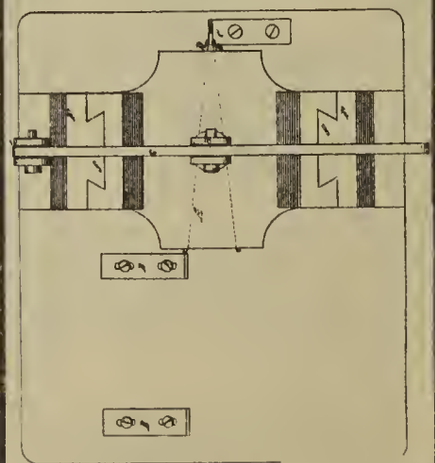


110,460. H. F. HENDERSON AND J. E. LADD GAGE FOR TURNING CLOCK WORKS.



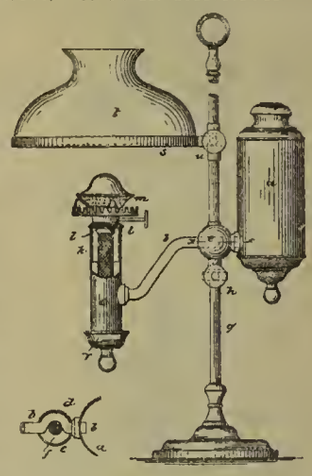
110,461. J. HESSING NON-CONDUCTING COMPOUND FOR COATING STEAM BOILERS

110,462. L. N. HEWES MACHINE FOR CUTTING THE ENDS OF HOOPS.



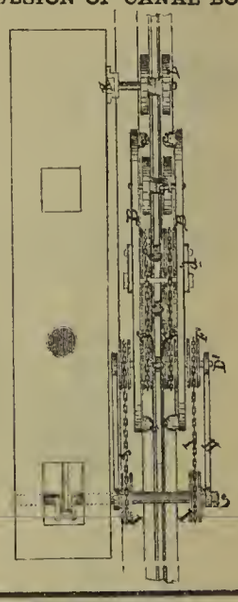
110,463 J. A. HEWETT COMPOUND AND PROCESS OF REMOVING INCRUSTATIONS OF LIME FROM STEAMBOILERS, METALS, &c.

110,464. C. F. A. HINRICHS LAMP.

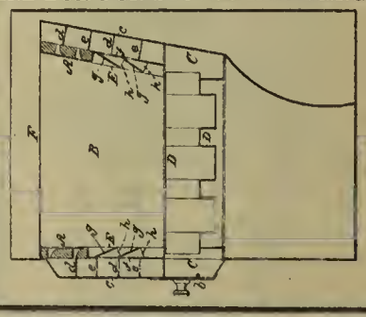


110,465. F. A. HOLCOMB. MANUFACTURE OF LEATHER.

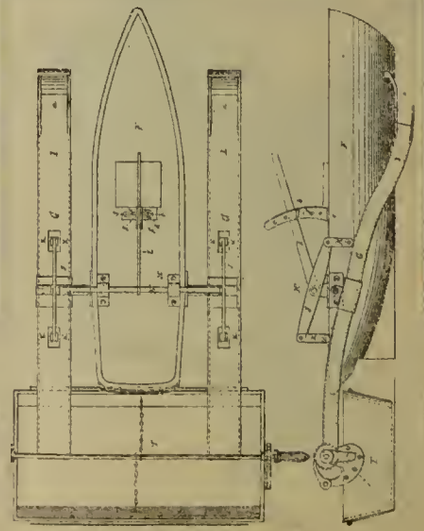
110,466. J. L. HORNIG PROPULSION OF CANAL BOATS.



110,467. M. L. HORTON FIRE BOX FOR STOVES AND RANGES.



110,468. G. HOWELL. DEVICE FOR FILLING LOWLANDS

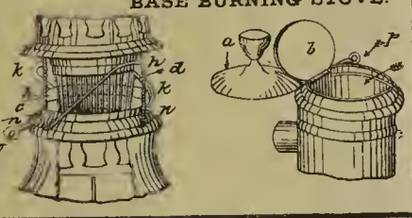


110,469. E. T. JARROLD REFINING OIL FROM COTTON WASTE, &c.

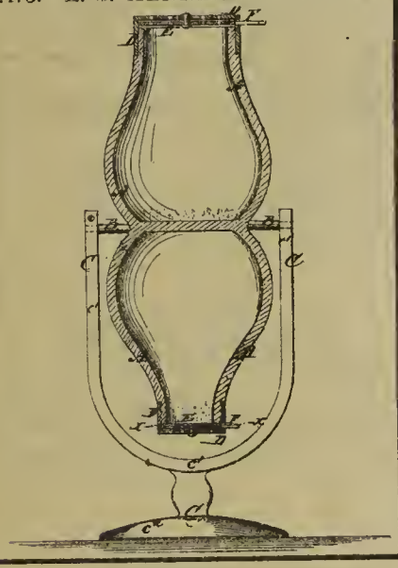
110,470. N. JENKINS MEDICAL COMPOUND FOR CURE OF RHEUMATISM.

110,471. CANCELED

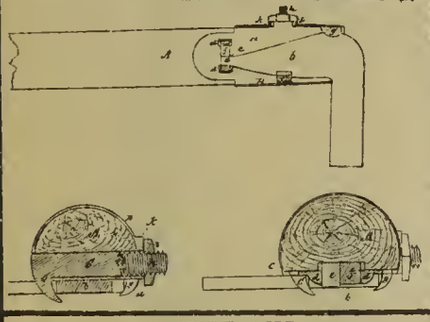
110,472. W. KAISER BASE BURNING STOVE.



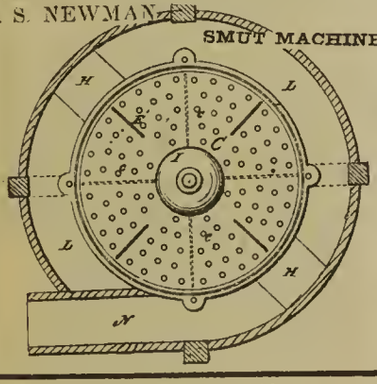
110,473. E. S. KENNEDY SPICE BOX.



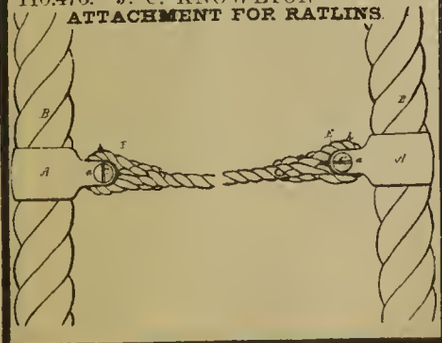
110,474. S. U. KING. SCYTHE FASTENING.



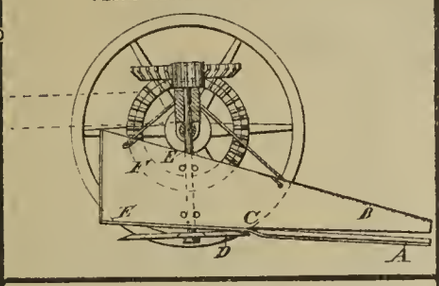
110,475. W. H. KITE AND G. S. NEWMAN SMUT MACHINE.



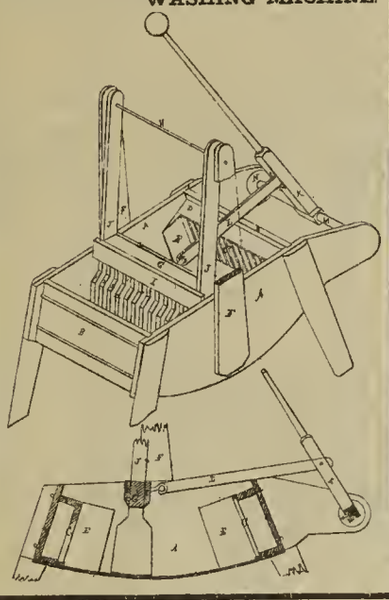
110,476. J. C. KNOWLTON ATTACHMENT FOR RATLINS.



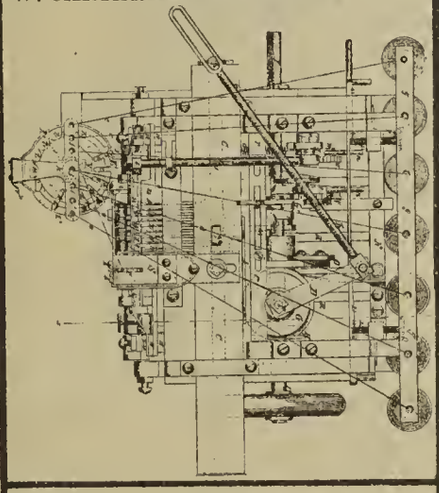
110,477. H. LAWRENCE VINE AND WEED CUTTER



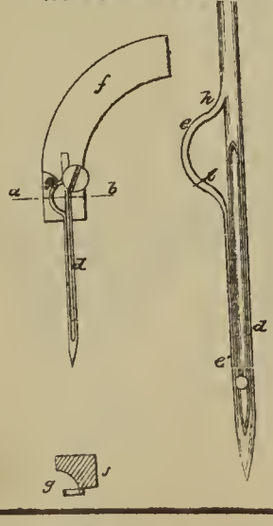
110,478. B. C. LAWSON WASHING MACHINE.



110,479. J. AND M. LEE AND W. CARTER KNITTING MACHINE.

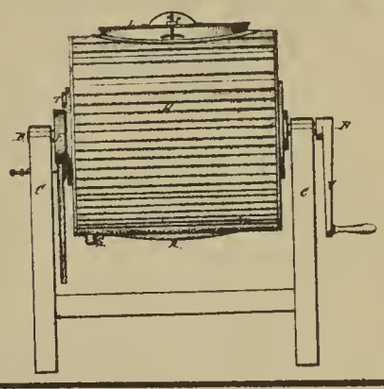


110,480. G. A. LLOYD NEEDLE AND ITS CARRYING ARM FOR SEWING MACHINES

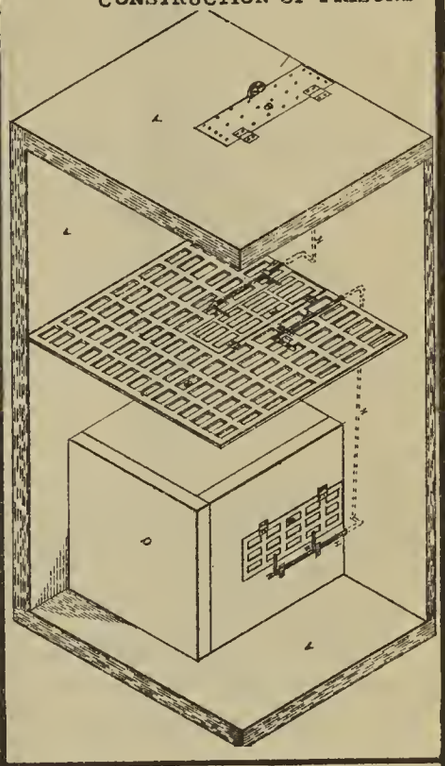


110,481. L. MARKS COMPOUND FOR CLEANING CARPETS.

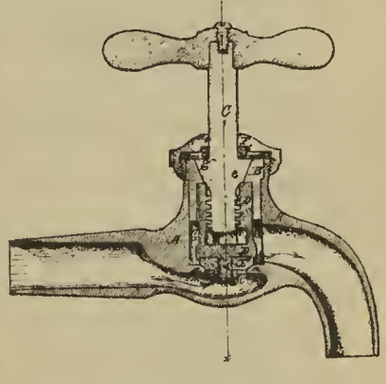
110,482. M. S. MARSHALL WASHING MACHINE



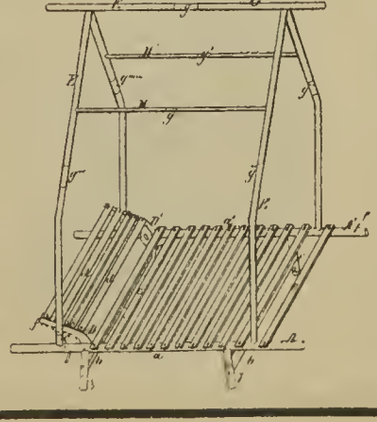
110,483. E. MAY CONSTRUCTION OF PRISONS



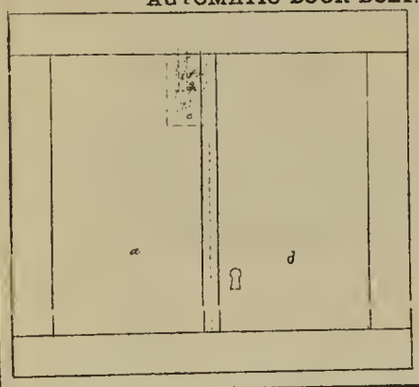
110,484. P. A. MAYOR WATER FAUCET.



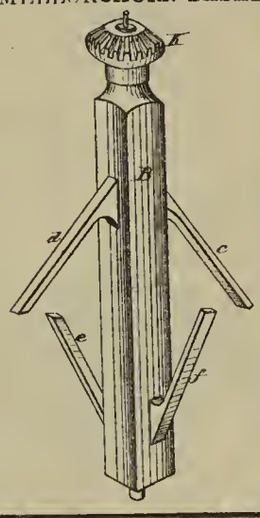
110,485. A. D. McCOY CAMP BEDSTEAD.



110,486. A. McKAY
AUTOMATIC DOOR BOLT.



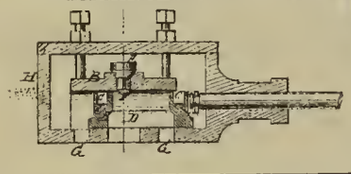
110,487. J. B. MELLOR CHURN DASHER



110,488. W. MOLLOR
PILTER TANK AND OTHER VESSELS USED IN REFINING SIRUPS, SUGAR, &c

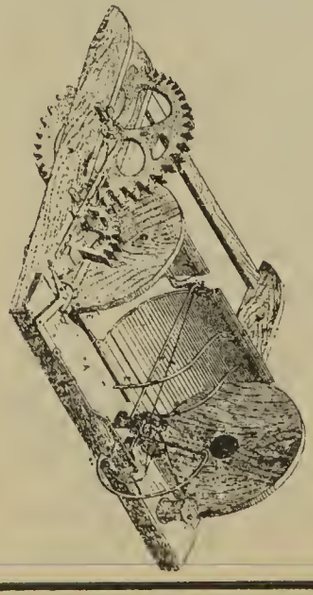
110,489. J. MYERS, Jr.
TREATING BESSEMER STEEL

110,490. J. NESBITT
BALANCED SLIDE VALVE.



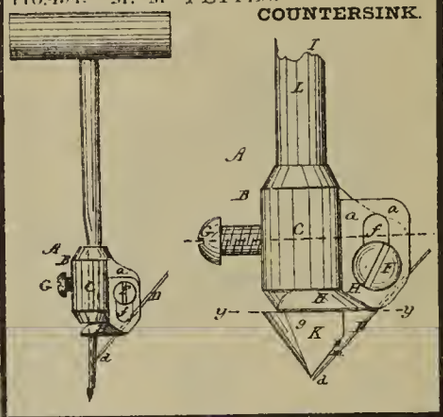
110,491. W. PARK KEY FOR LOCKS

110,492. LA FAYETTE PARKER.
GRAIN BINDER.



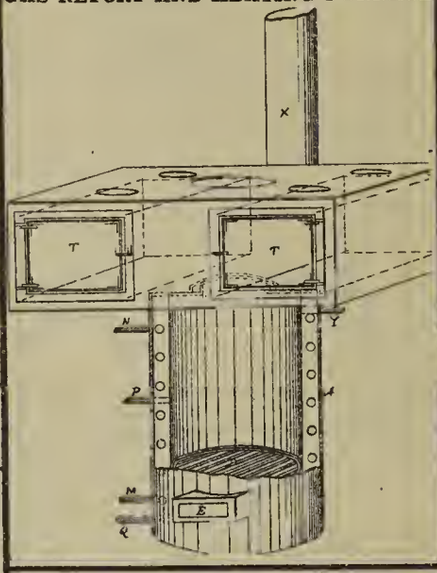
110,493. SUSPENDED

110,494. M. M. PETTES.
COUNTERSINK.

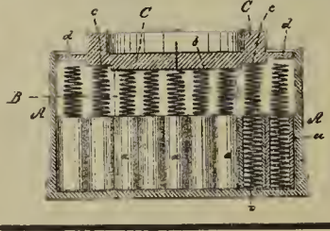


110,495. G. H. POND
CLEANING WOOL, COTTON, &c.

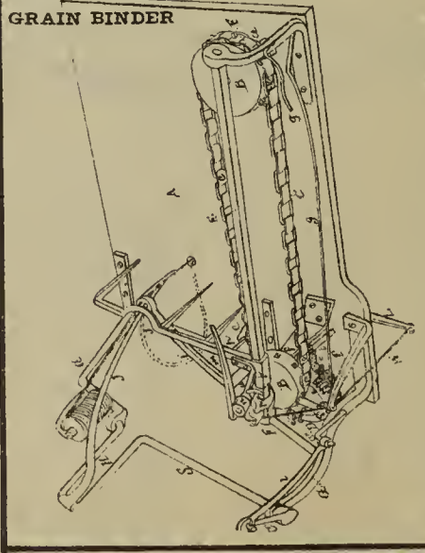
110,496. G. H. POND.
GAS RETORT AND HEATING FURNACE



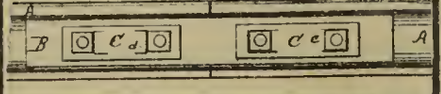
110,497. A. POTTS.
RAILWAY CAR SPRING.



110,498. F. W. RANDALL.
GRAIN BINDER

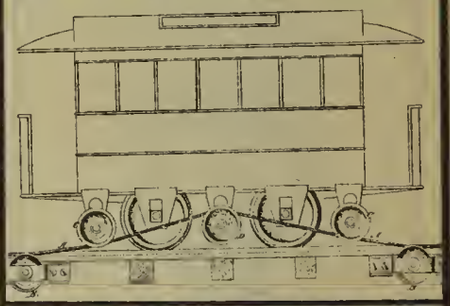


110,499. J. L. RANDOLPH LOCK NUT.

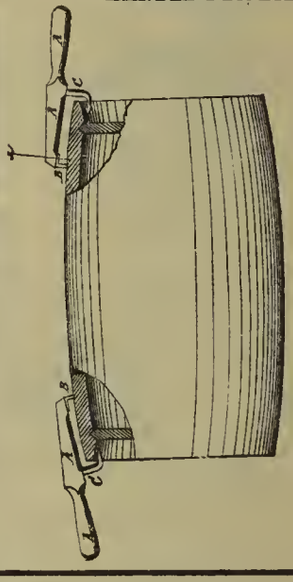


110,500. T. C. RICHARDS
NAIL FOR PICTURES.

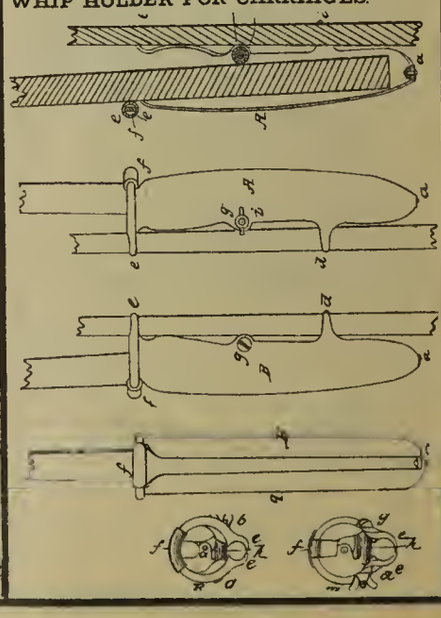
110,501. J. ROY
PROPELLING APPARATUS FOR CARS.



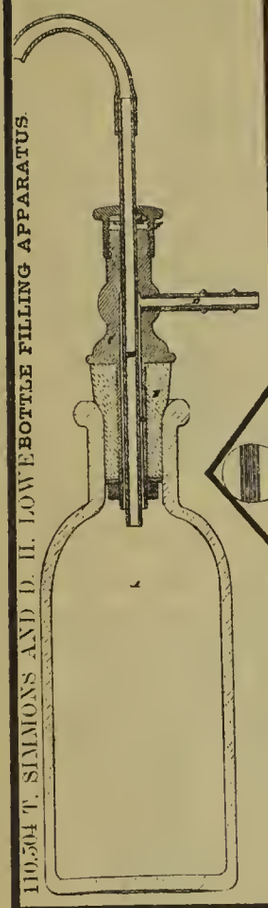
110,502. M. S. SCHOFIELD
HANDLE FOR BARRELS, &c



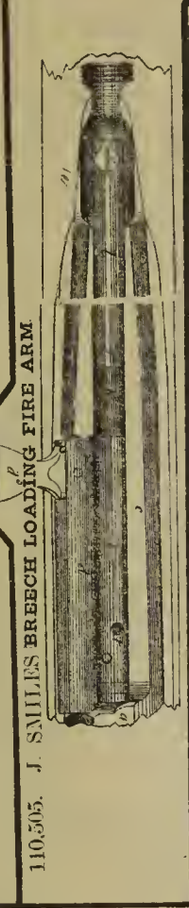
110,503. E. W. SCOTT
WHIP HOLDER FOR CARRIAGES.



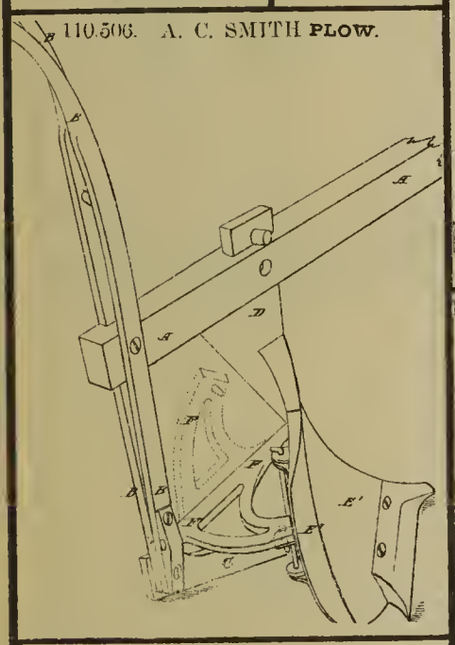
110,504 T. SIMMONS AND D. H. LOWE BOTTLE FILLING APPARATUS.



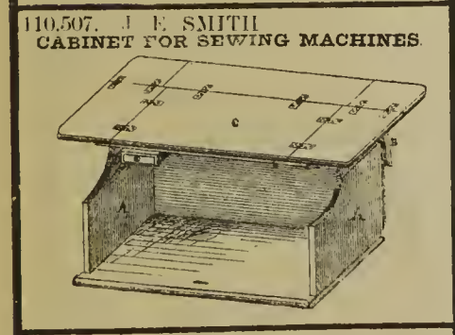
110,505. J. SMILES BRECH LOADING FIRE ARM.



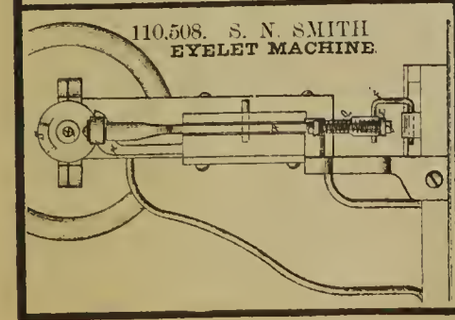
110,506. A. C. SMITH PLOW.



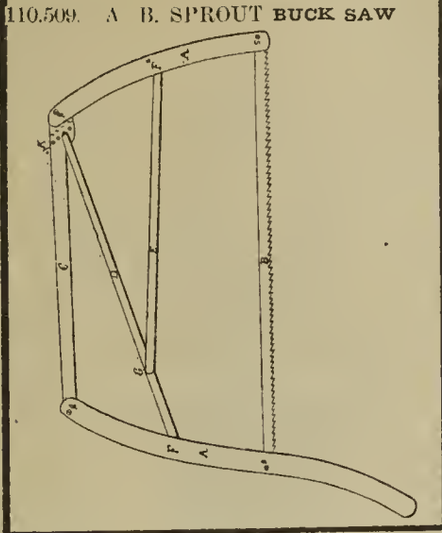
110,507. J. E. SMITH CABINET FOR SEWING MACHINES.



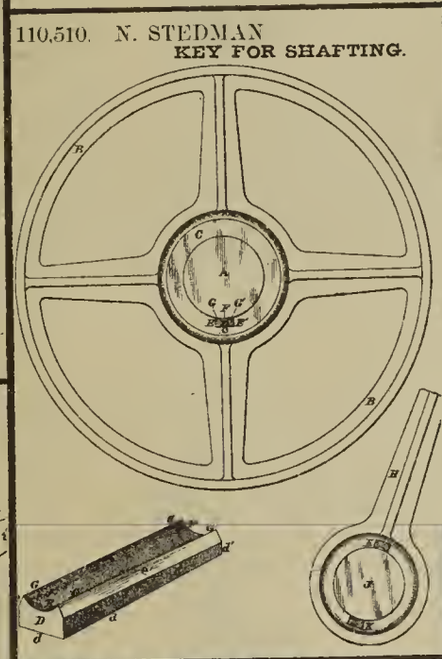
110,508. S. N. SMITH EYELET MACHINE.



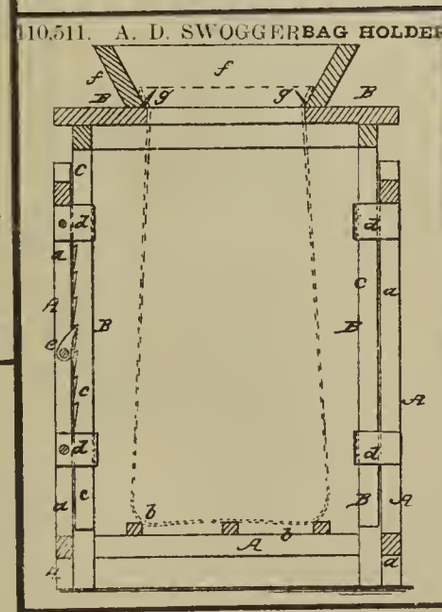
110,509. A. B. SPROUT BUCK SAW



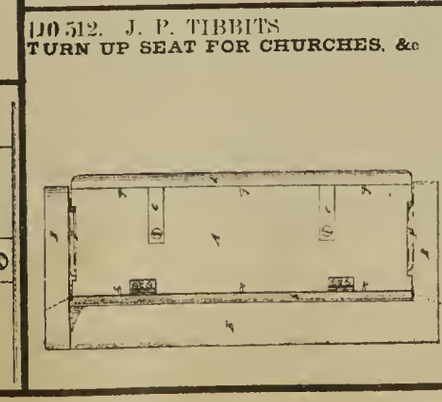
110,510. N. STEDMAN KEY FOR SHAFTING.



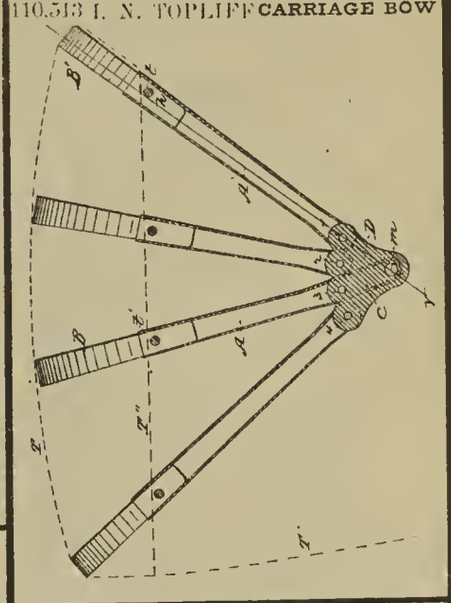
110,511. A. D. SWOGGER BAG HOLDER



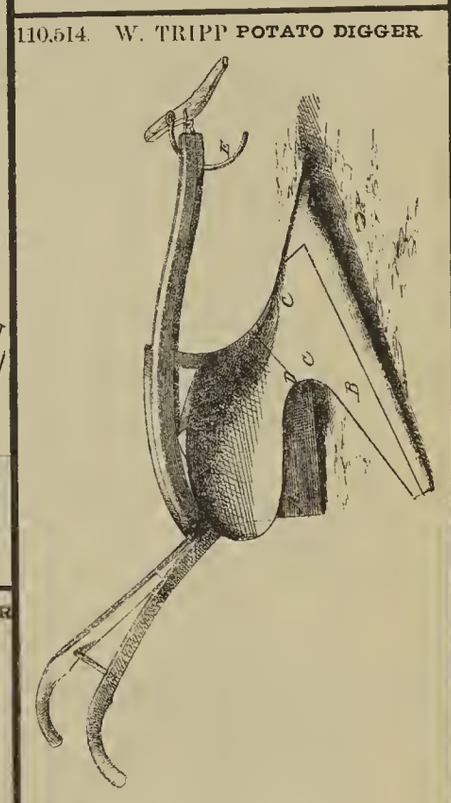
110,512. J. P. TIBBITS TURN UP SEAT FOR CHURCHES, &c



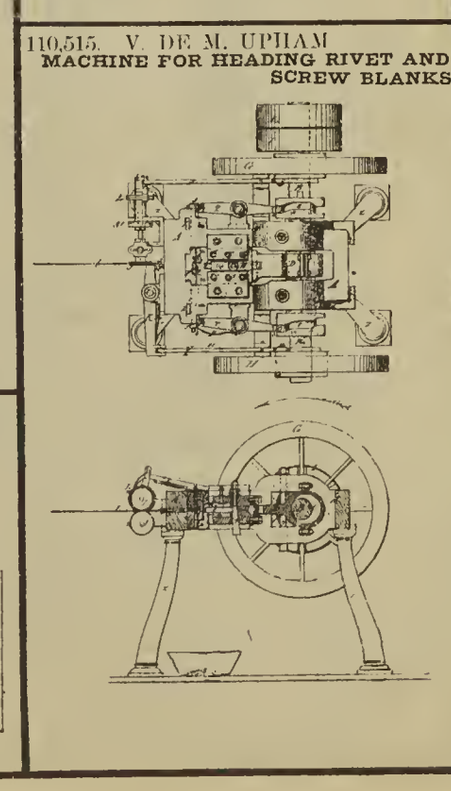
110,513 I. N. TOPLIFF CARRIAGE BOW



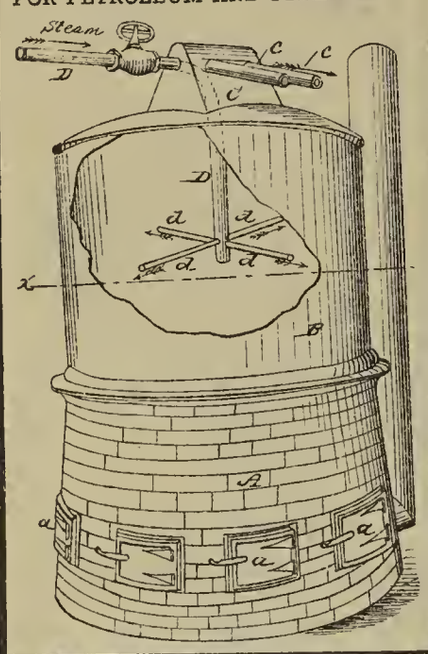
110,514. W. TRIPP POTATO DIGGER.



110,515. V. DE M. UPHAM MACHINE FOR HEADING RIVET AND SCREW BLANKS.

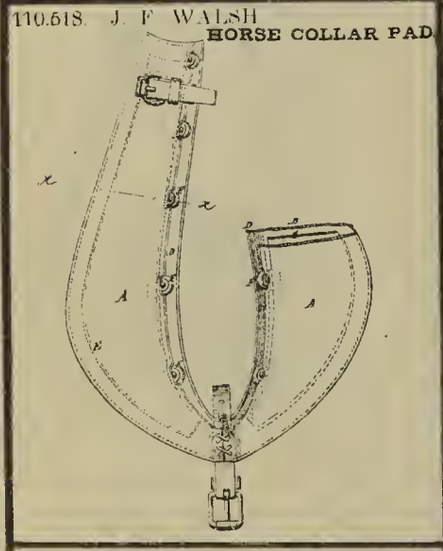


110,516. S. VAN SYCKEL STILL FOR PETROLEUM AND OTHER OILS.

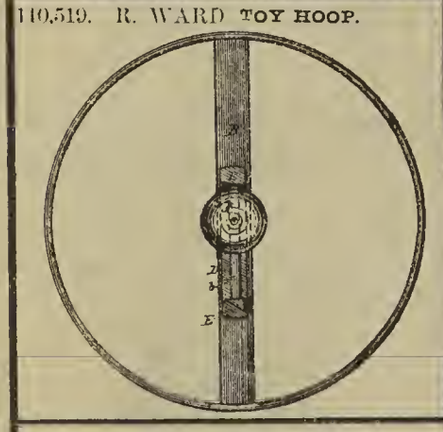


110,517. SUSPENDED

110,518. J. F. WALSH HORSE COLLAR PAD.

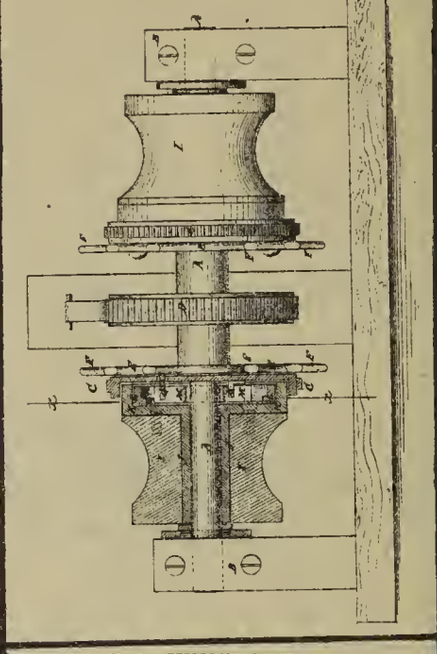


110,519. R. WARD TOY HOOP.



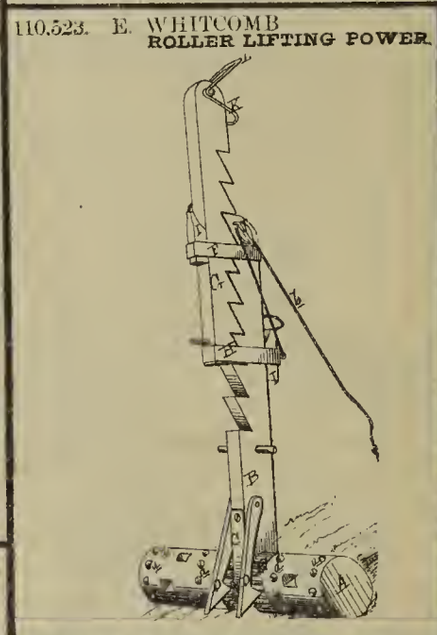
110,520. F. F. WARNER ADDING MACHINE.

110,521. E. AND G. N. WATERBURY WINDLASS.

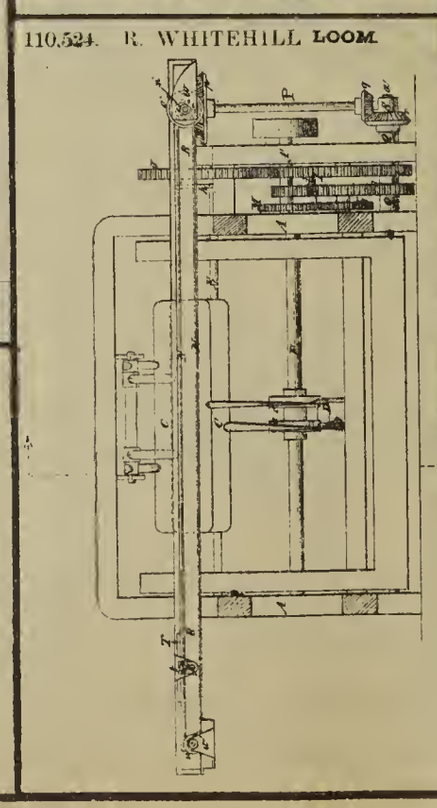


110,522. C. S. WESTCOTT PRINTER'S INKING ROLLER.

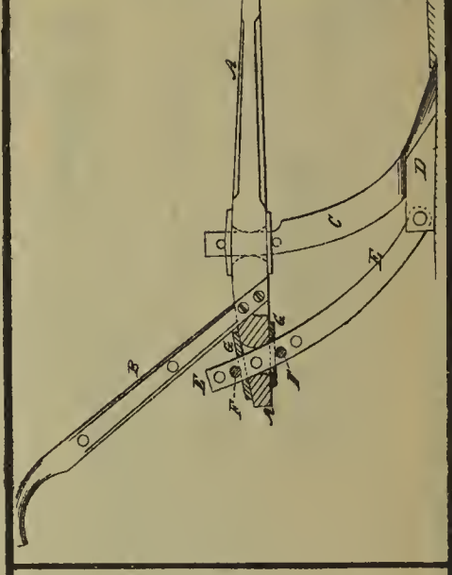
110,523. E. WHITCOMB ROLLER LIFTING POWER.



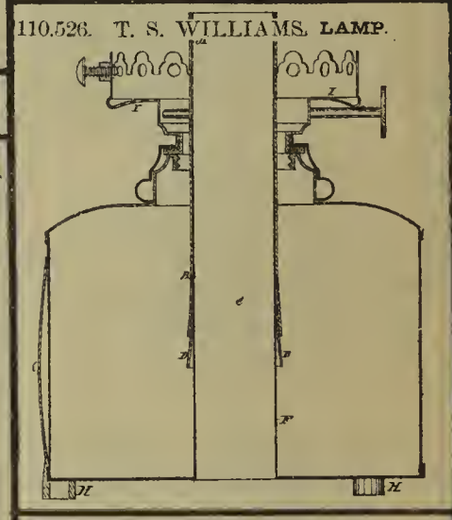
110,524. R. WHITEHILL LOOM.



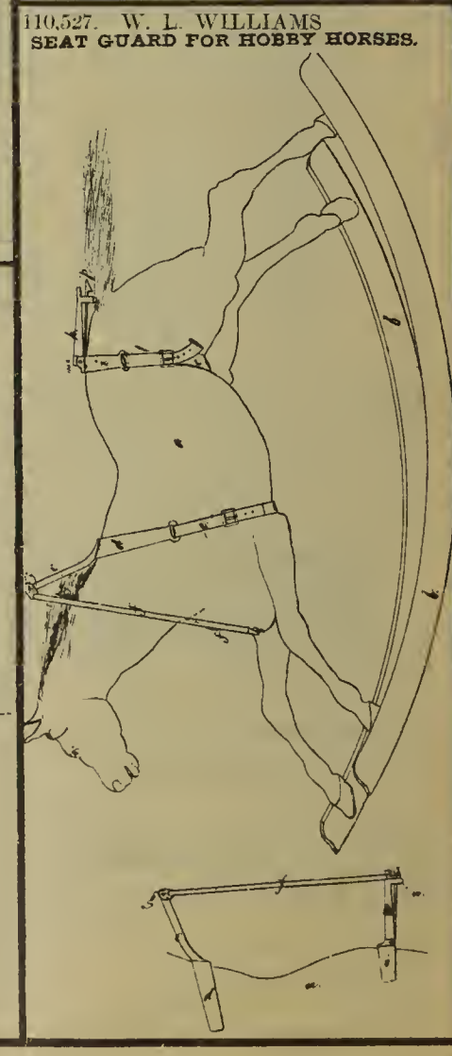
110,525 T. G. WILDER SUBSOIL PLOW.



110,526. T. S. WILLIAMS. LAMP.

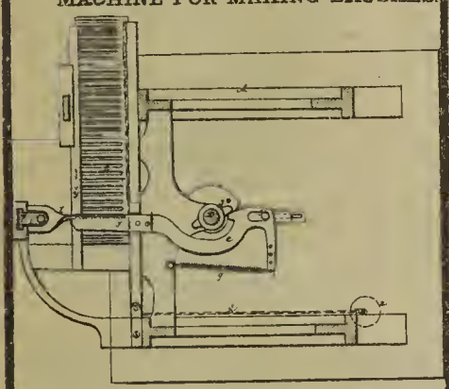


110,527. W. L. WILLIAMS SEAT GUARD FOR HOBBY HORSES.

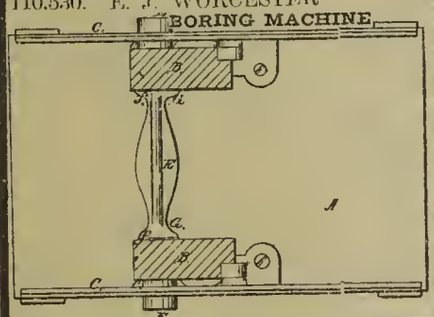


110,528. J. B. WITHEY
RUNNING GEAR FOR CARRIAGES.

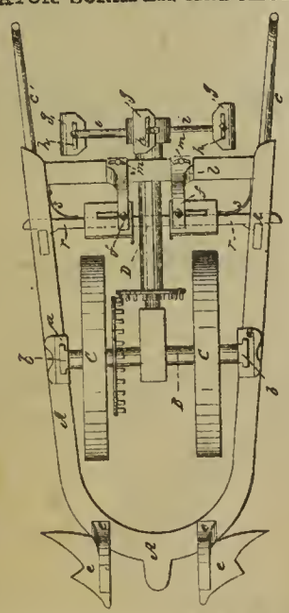
110,529 O. D WOODBURY
MACHINE FOR MAKING BRUSHES.



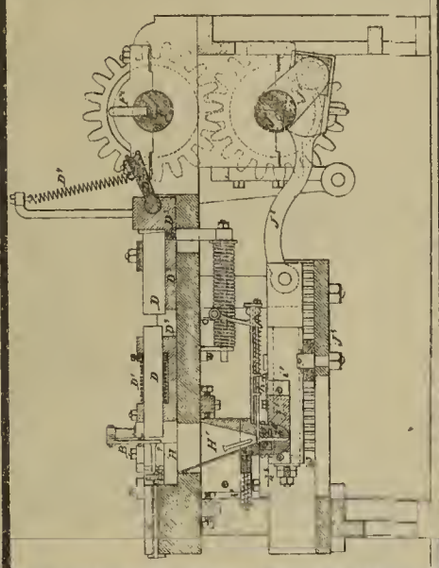
110,530. E. J. WORCESTER
BORING MACHINE.



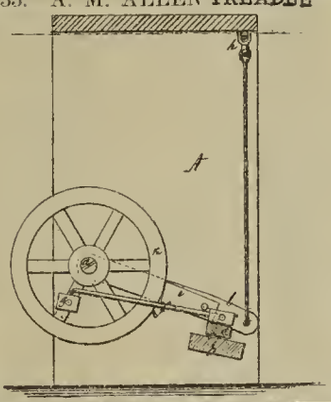
110,531. J. H. W. YOUNG COTTON
CULTIVATOR SCRAPER AND CHOPPER.



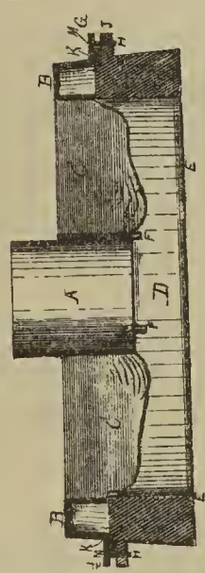
110,532. J. M. ALDEN
WOOD SCREW MACHINE.



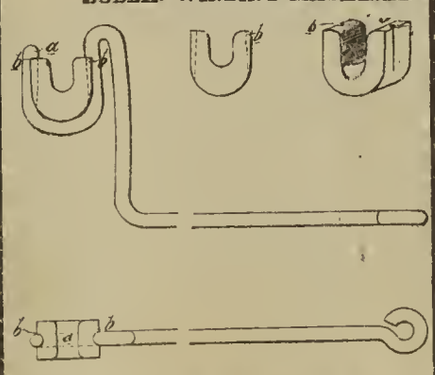
110,533. A. M. ALLEN TREADLE



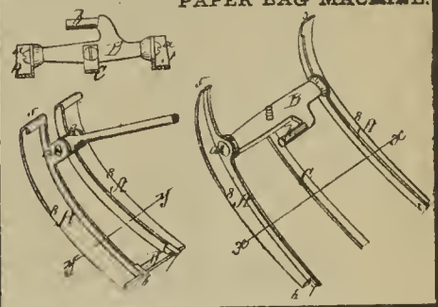
110,534. A. ALLING
COPE FOR CASTING CAR WHEELS.



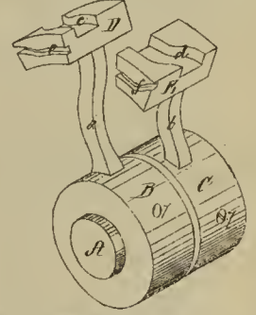
110,535. W. W. ALTEMUS.
THREAD GUIDE AND HOLDER FOR
BOBBIN WINDING MACHINES.



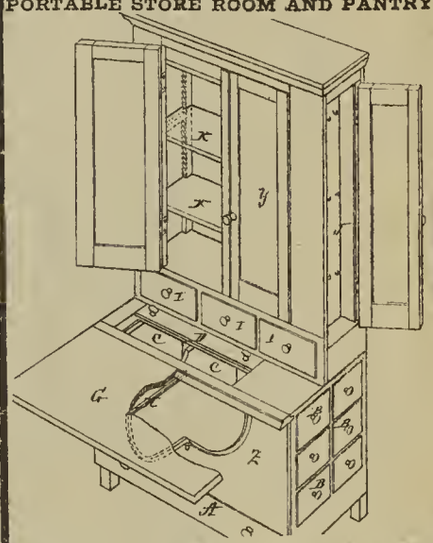
110,536. C. F. ANNAN
PAPER BAG MACHINE.



110,537C. F. ANNAN ADJUSTABLE CAM.

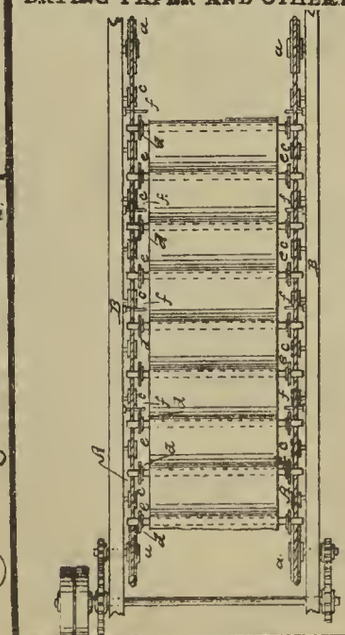


110,538. T. A. BARRELL
PORTABLE STORE ROOM AND PANTRY

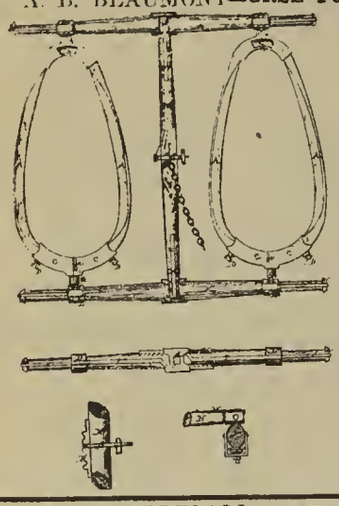


110,539.G. N. BEARD COTTON BALE TIE.

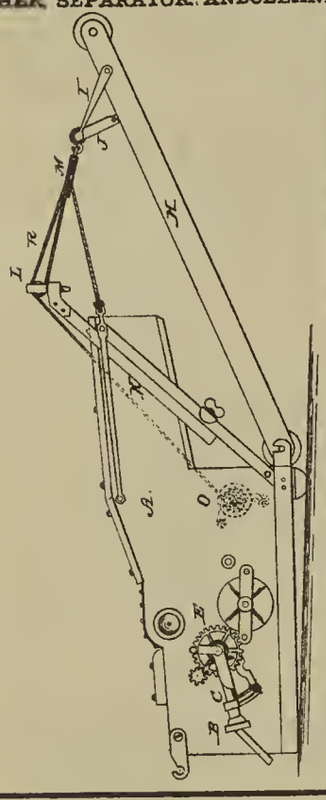
110,540. F. BECK. MACHINE FOR
DRYING PAPER AND OTHER FABRICS.



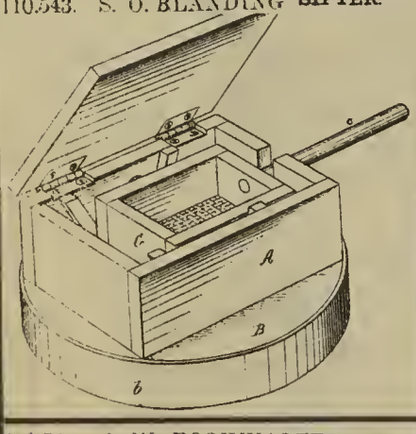
110,541. A. B. BEAUMONT HORSE YOKE.



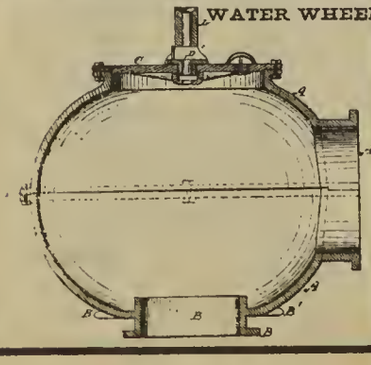
110,542. E. M. BIRDSALL GRAIN THRASHER, SEPARATOR, AND CLEANER.



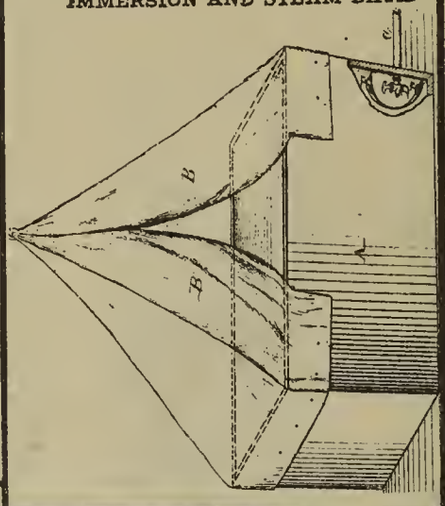
110,543. S. O. BLANDING SIFTER.



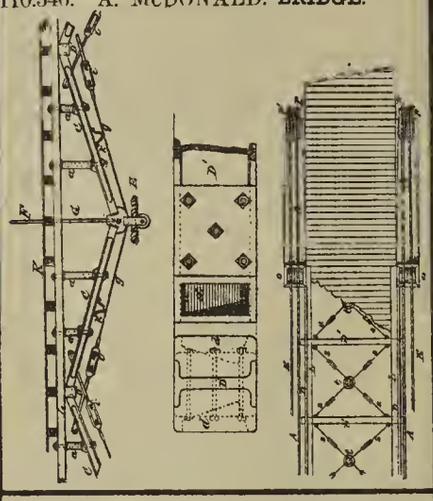
110,544. J. W. BOOKWALTER. WATER WHEEL.



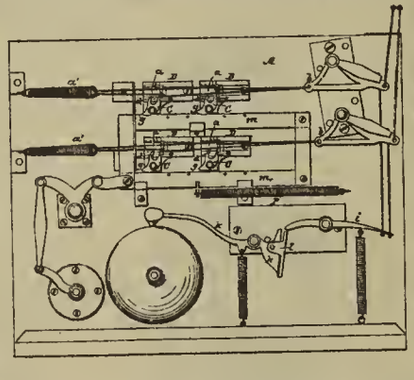
110,545. J. W. CALDWELL COMBINED IMMERSION AND STEAM BATH.



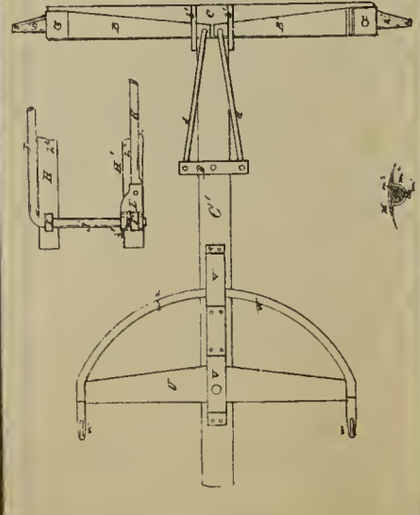
110,546. A. McDONALD. BRIDGE.



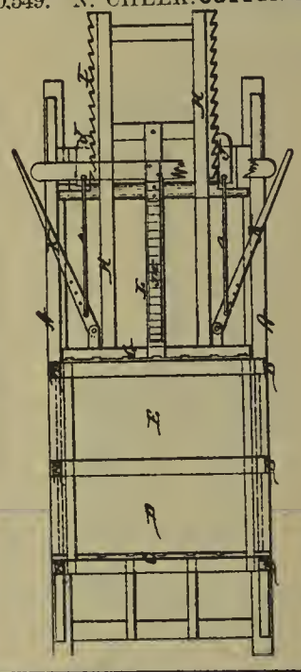
110,547. J. CAPRON ANNUNCIATOR.



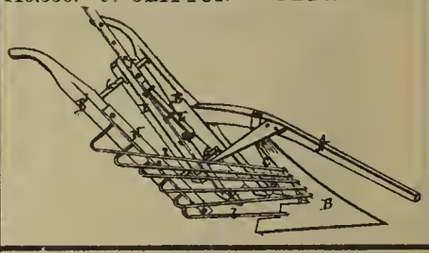
110,548. J. H. CARLOW CULTIVATOR.



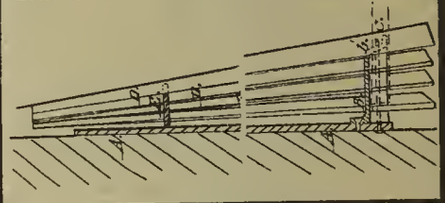
110,549. N. CHEEK. COTTON PRESS.



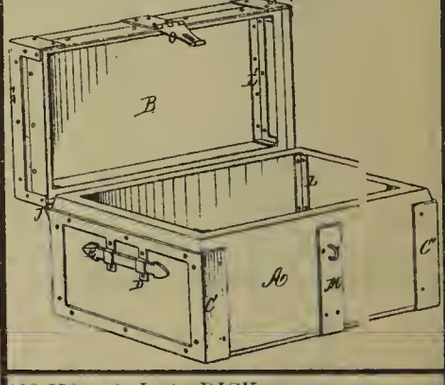
110,550. J. CLIFTON PLOW.



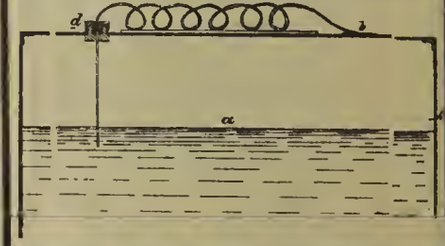
110,551. E. B. CORBY CLOTHES DRIER.



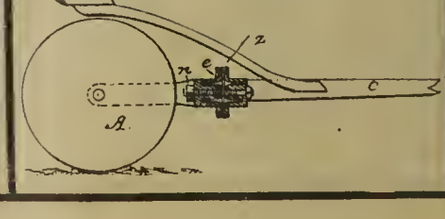
110,552. F. K. DAGGETT TRUNK.



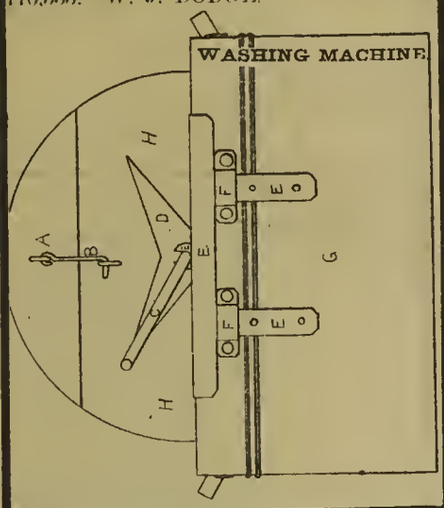
110,553. C. J. A. DICK PREVENTING INCRUSTATION OF STEAM BOILERS.



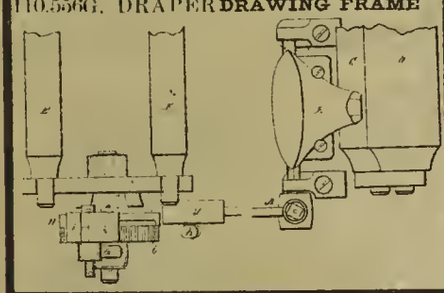
110,554. J. W. DILLEY LAND ROLLER.



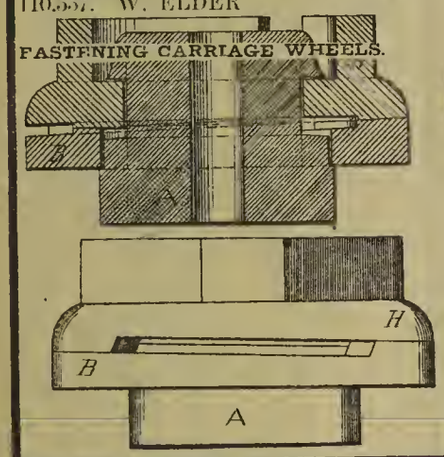
110,555. W. J. DODGE.
WASHING MACHINE.



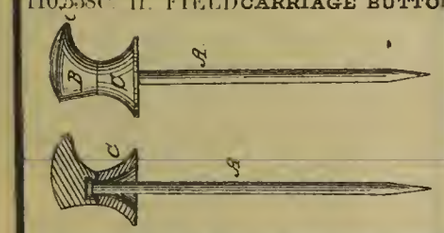
110,556G. DRAPER DRAWING FRAME



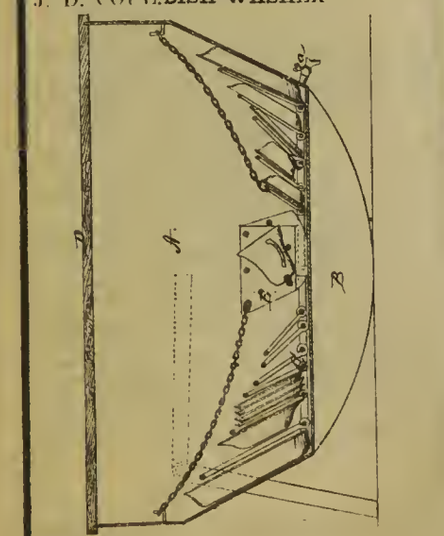
110,557. W. ELDER
FASTENING CARRIAGE WHEELS.



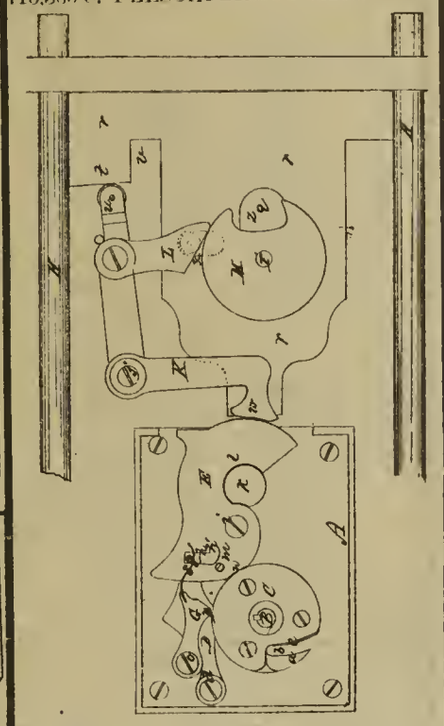
110,558C. H. FIELD CARRIAGE BUTTON



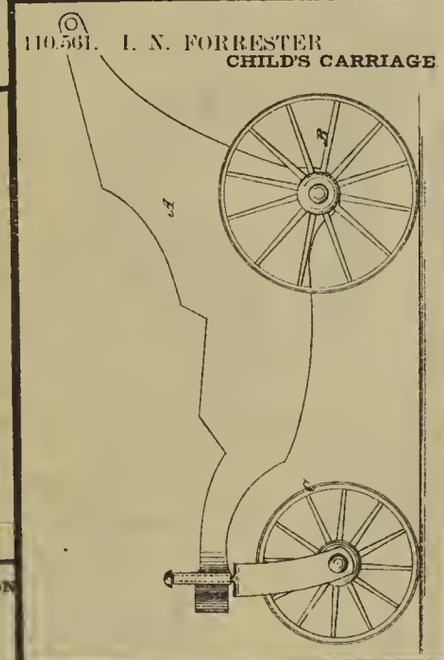
110,559R. AND R. D. S. FILSON AND J. D. COPE. DISH WASHER



110,560C. FLESCH PERMUTATION LOCK

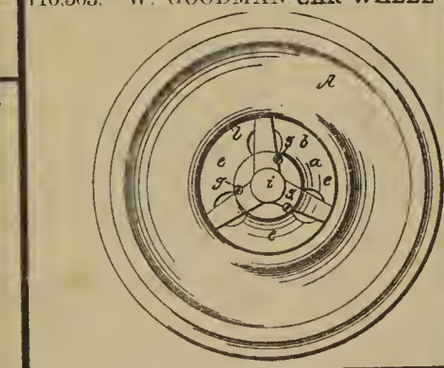


110,561. I. N. FORRESTER
CHILD'S CARRIAGE.

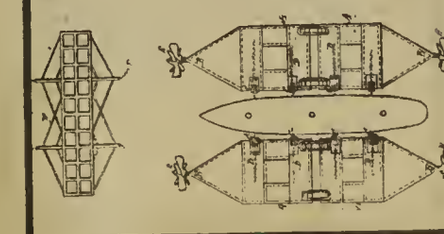


110,562. W. H. FULLER TREATING HIDES AND MANUFACTURING LEATHER

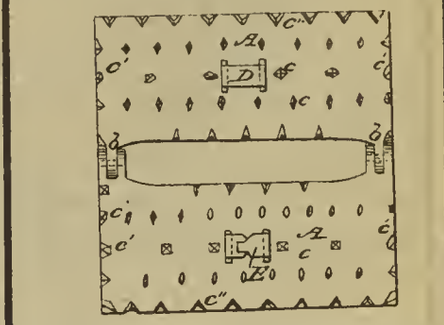
110,563. W. GOODMAN CAR WHEEL



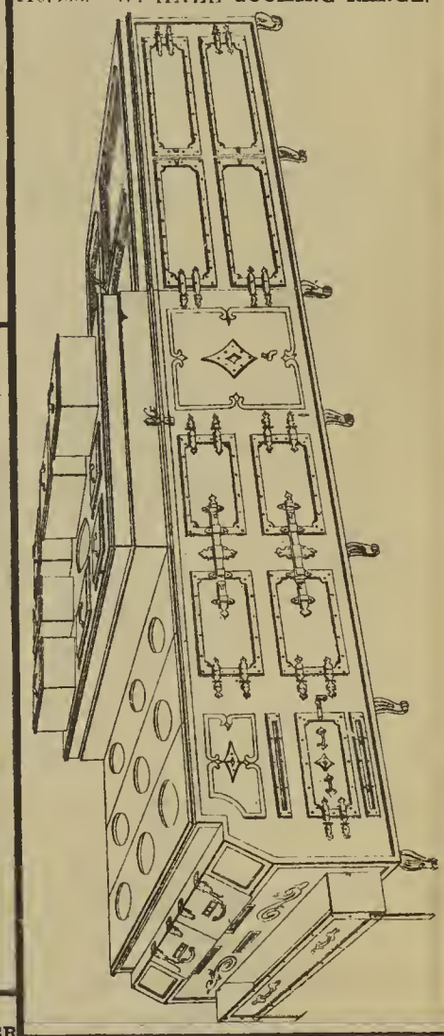
110,564. J. E. GOWEN
APPARATUS FOR RAISING VESSELS.



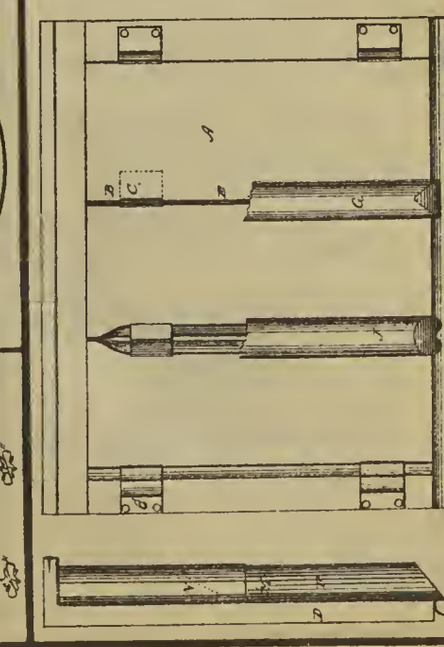
110,565. J. M. GRAY
HAND CORN HUSKER AND SHELLER



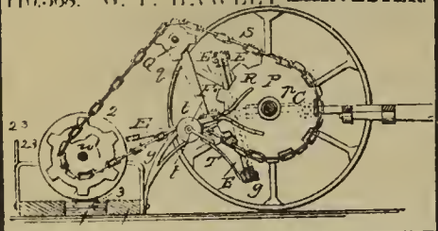
110,566. W. HALL COOKING RANGE.



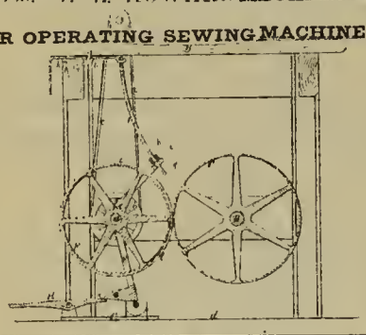
110,567. J. S. HAYWOOD
METAL ROOF FOR BUILDINGS.



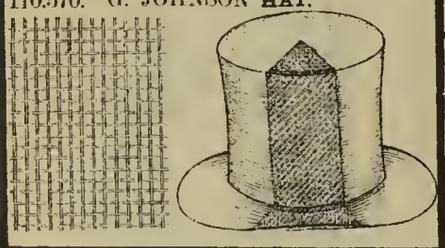
110,568. G. F. HAWLEY HARVESTER.



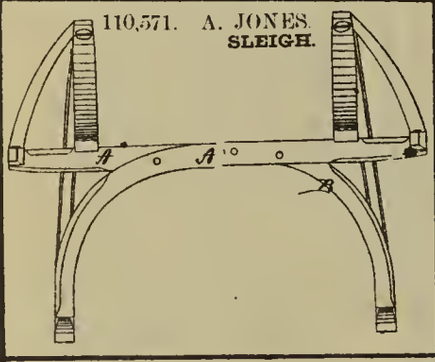
110,569. E. L. HOWARD MECHANISM FOR OPERATING SEWING MACHINES



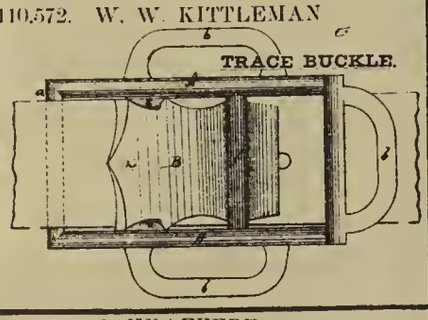
110,570. G. JOHNSON HAT.



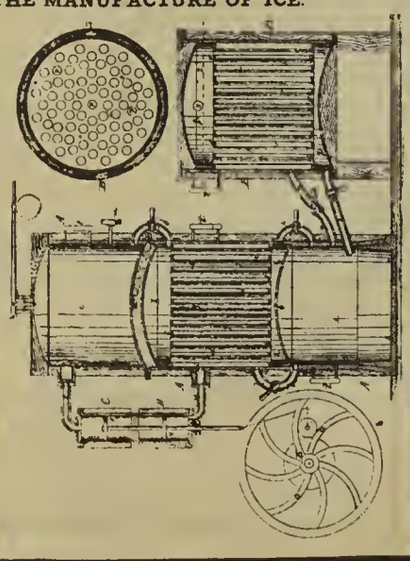
110,571. A. JONES. SLEIGH.



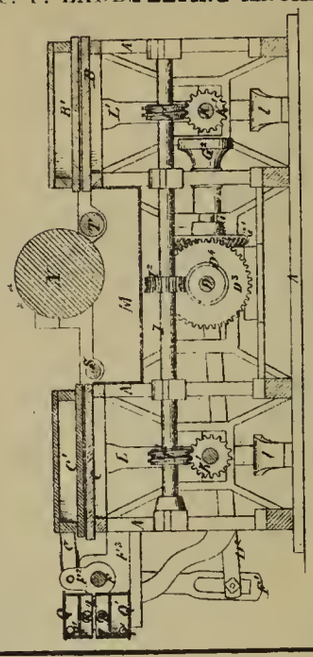
110,572. W. W. KITTLEMAN TRACE BUCKLE.



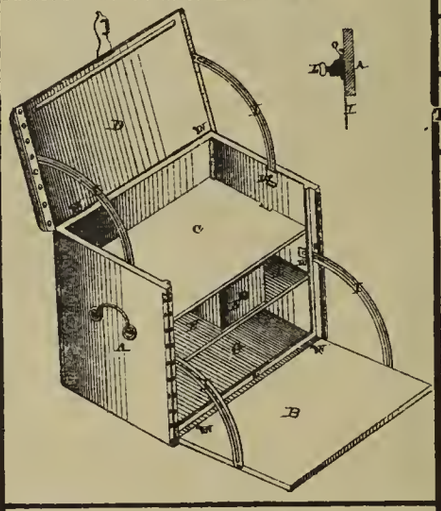
110,573. J. KRAFFERT MACHINE FOR COOLING AIR AND FOR THE MANUFACTURE OF ICE.



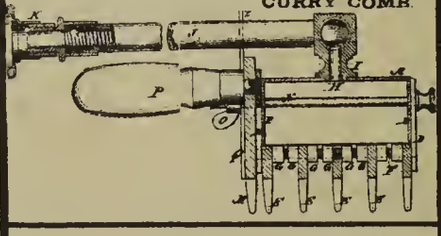
110,574C. P. LADD. FELTING MACHINE.



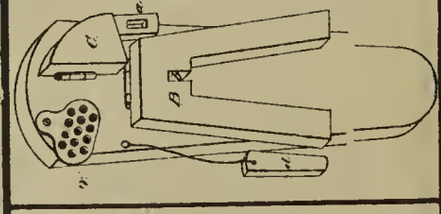
110,575. J. G. LANE TRUNK.



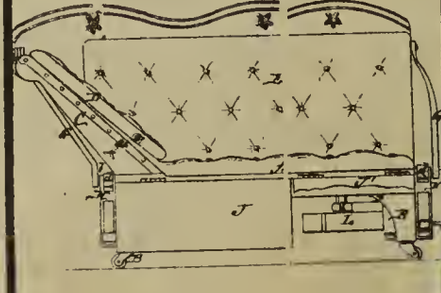
110,576. W. E. LAWRENCE CURRY COMB.



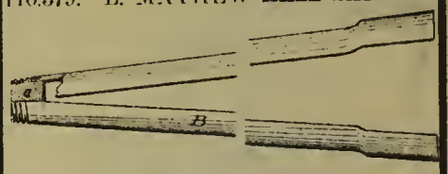
110,577. J. J. MARKI IRONING TABLE.



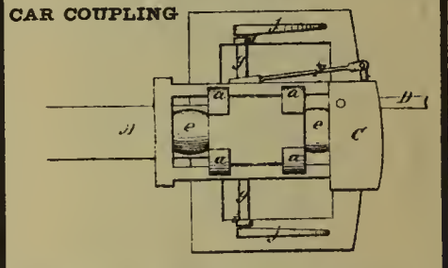
110,578. M. MARSO FOLDING LOUNGE.



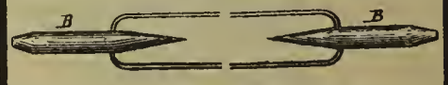
110,579. L. MAYHEW AXLE SKEIN



110,580. W. H. MEADOWS. CAR COUPLING



110,581. F. B. MORSE CARRIAGE CLIP

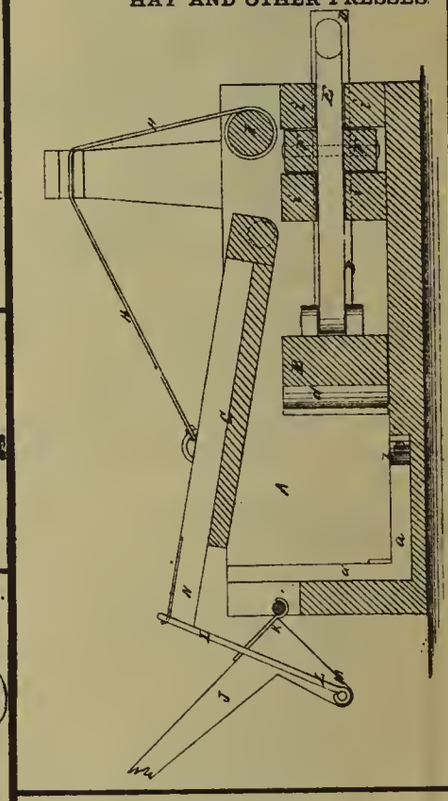


110,582. E. D. MURFEY MATERIAL FOR BEARINGS AND PACKINGS

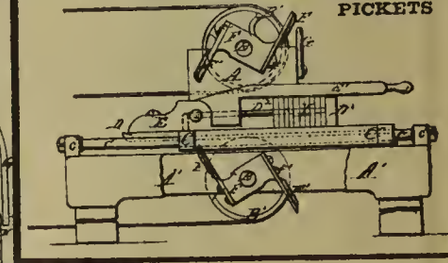
110,583. E. D. MURFEY BEARING AND PACKING MATERIAL.

110,584. E. D. MURFEY THE MANUFACTURE OF MATERIAL FOR JOURNALS, BEARINGS, AND PACKINGS.

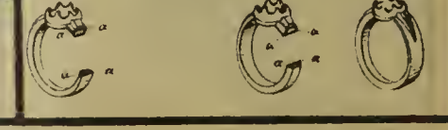
110,585. M. V. NORTHRUP HAY AND OTHER PRESSES.



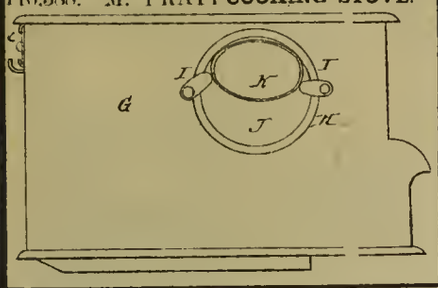
110,586. W. AND J. F. NUELLE MACHINE FOR DRESSING FENCE PICKETS



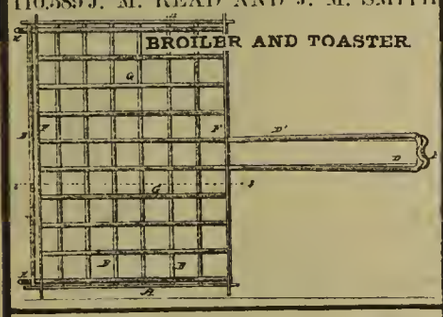
110,587. J. S. PALMER FINGER RING.



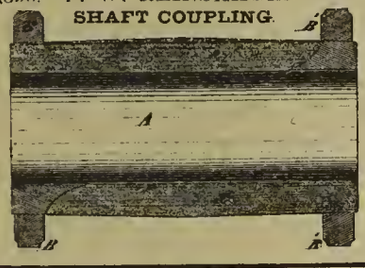
110,588. M. PRATT COOKING STOVE.



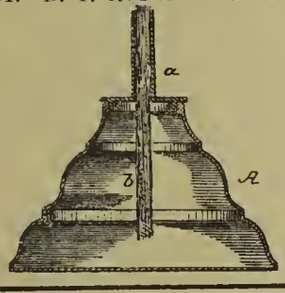
110,589 J. M. READ AND J. M. SMITH BROILER AND TOASTER.



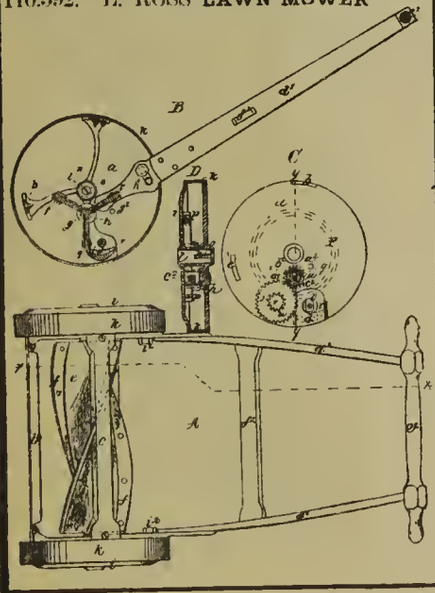
110,590. P. W. REINSHAGEN SHAFT COUPLING.



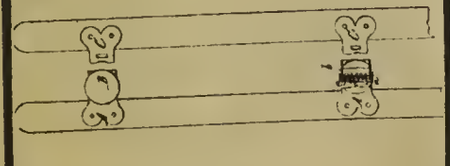
110,591. D. T. ROBINSON LAMP WICK.



110,592. L. ROSS LAWN MOWER

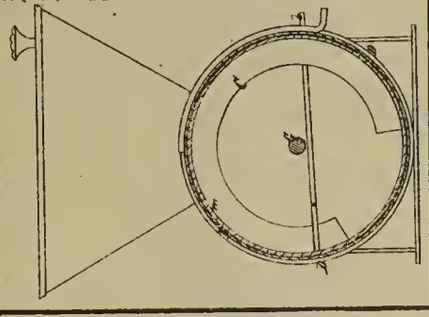


110,593 C. SCHIECK CORSET FASTENING

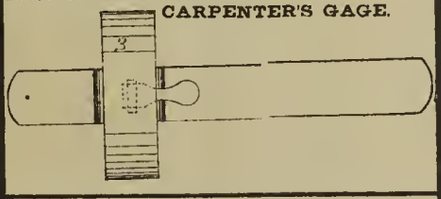


110,594. W. SELFE TOBACCO PIPE

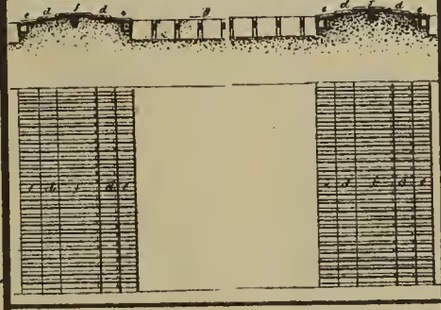
110,595. S. H. SHEPLAR AND W. G. CONKLIN SEED SOWER



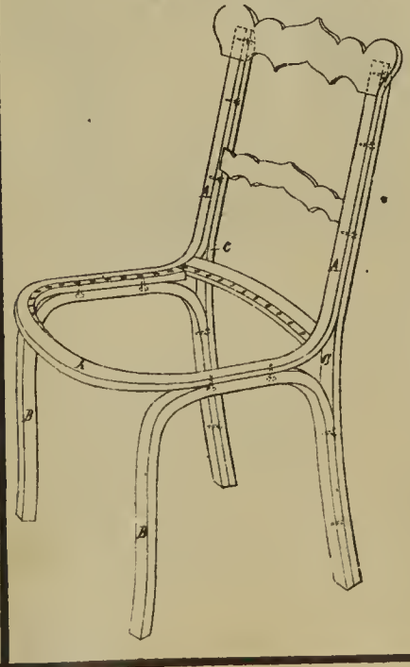
110,596. H. P. SISSON CARPENTER'S GAGE.



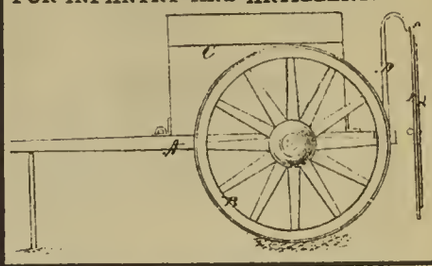
110,597. B. C. SMITH COMBINED TRAMWAY AND PAVEMENT



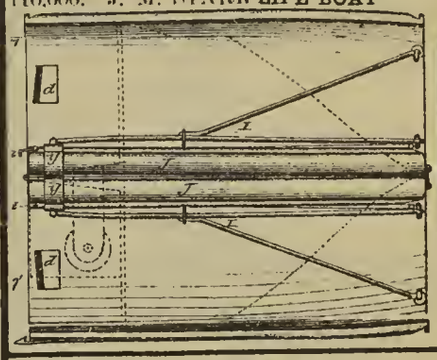
110,598. W. M. SMITH CHAIR FRAME.



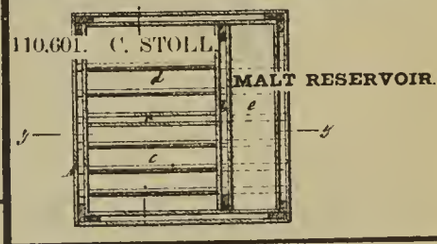
110,599. H. SPEARS PORTABLE SHIELD FOR INFANTRY AND ARTILLERY.



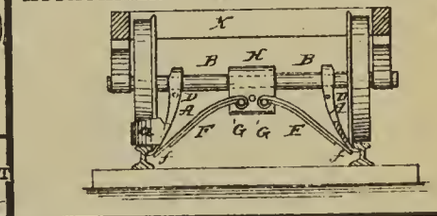
110,600. J. M. STARR LIFE BOAT



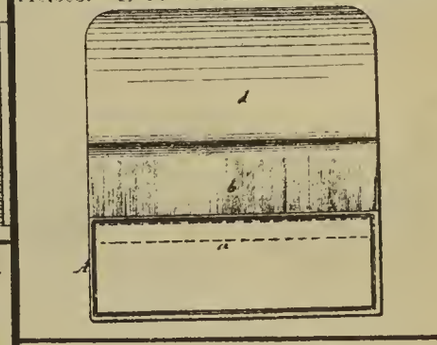
110,601. C. STOLL MALT RESERVOIR.



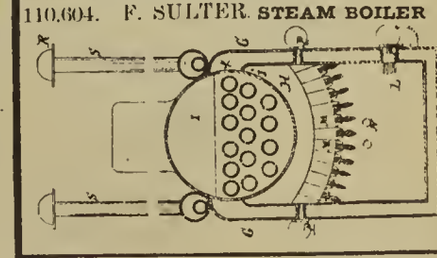
110,602. A. STRAUSS. SAFETY ATTACHMENT FOR RAILWAY TRUCKS.



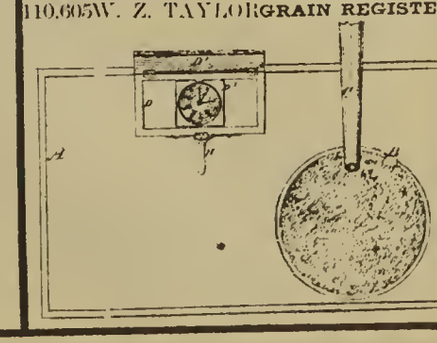
110,603. T. F. STUMPF POCKET BRUSH



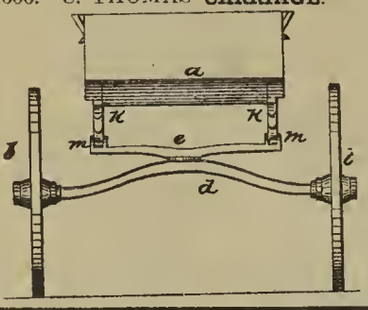
110,604. F. SULTER. STEAM BOILER



110,605 W. Z. TAYLOR GRAIN REGISTER

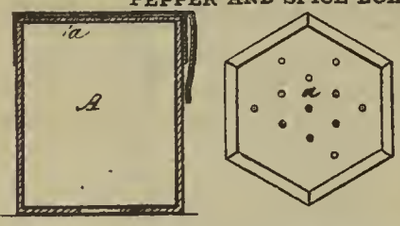


110,606. C. THOMAS **CARRIAGE.**

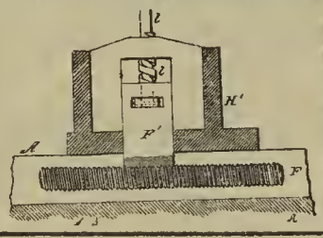


110,607 W. TREDENICK **CLOTHES DRIER**

110,608 A. E. TURNBULL, JR. **PEPPER AND SPICE BOX.**

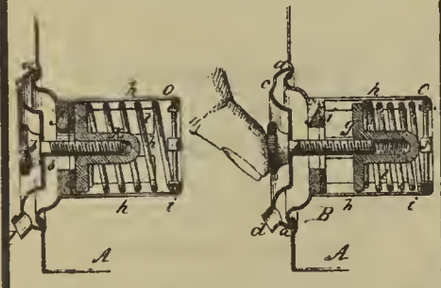


110,609. C. VAN HAAGEN **MACHINE FOR CUTTING AND SHAPING METALS.**



110,610. S. S. WALBANK **COMPOUND FOR TREATING LEATHER**

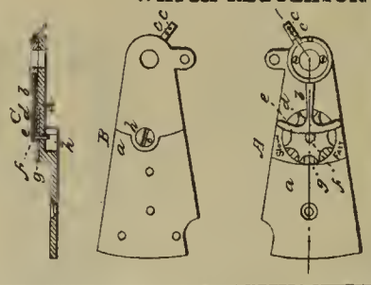
110,611. A. WARTH **TAP FOR OIL PACKAGES**



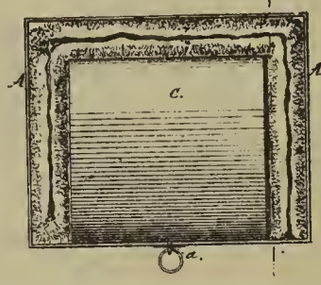
110,612. A. WARTH **TAP FOR OIL PACKAGES.**

110,613. M. M. WELLS **GRAIN RAKE.**

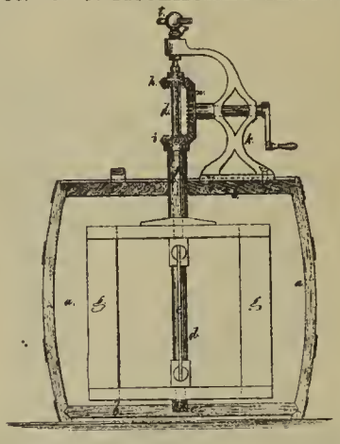
110,614. C. V. WOERD **WATCH REGULATOR.**



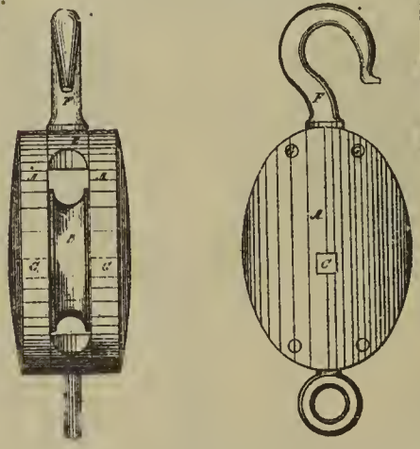
110,615. C. W. FRAZER **FUR SET BOX.**



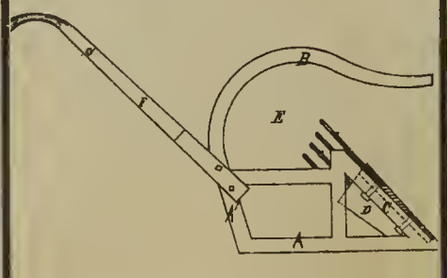
110,616. J. O. McCLASKEY **CHURN.**



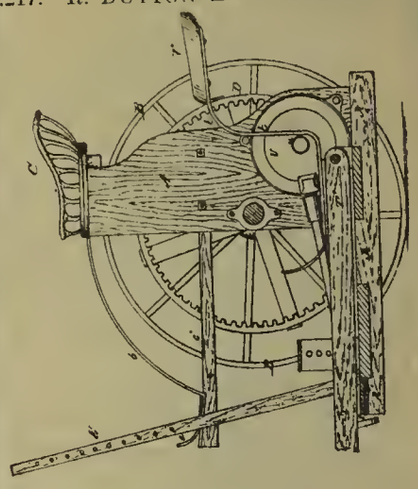
4,215 J. A. BURR, assignor to BURR & Co **HOISTING BLOCK.**



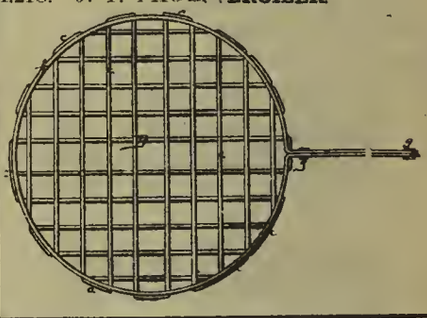
4,216 J. M. DICK, assignor to himself and W. H. ALBEE. **SHOVEL PLOW AND POTATO DIGGER COMBINED.**



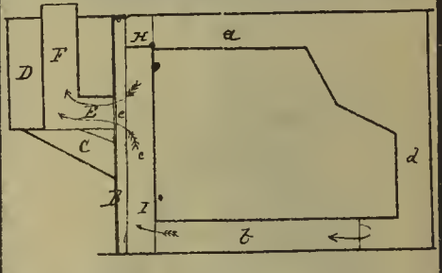
4,217. R. DUTTON **HARVESTER.**



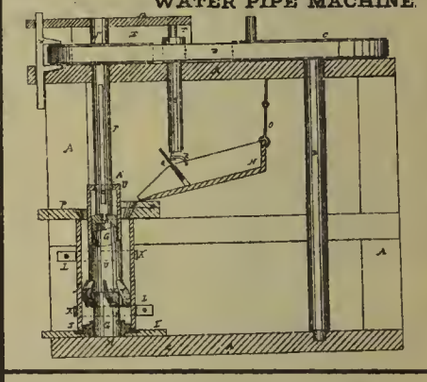
4,218. J. T. PAGE. **BROILER.**



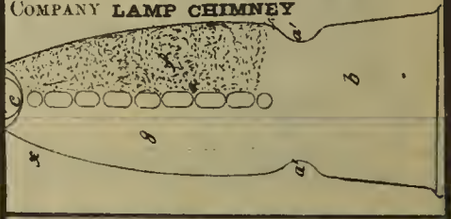
4,219. G. H. PHILLIPS. **RESERVOIR COOKING STOVE**



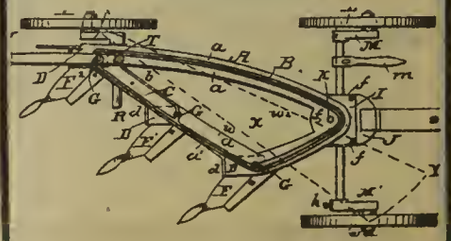
4,220. J. W. STOCKWELL **WATER PIPE MACHINE.**



4,221 E. B. REQUA, assignor to THE REQUA CONCAVE BURNER AND CHIMNEY COMPANY **LAMP CHIMNEY**



4,222. G. W. HILDRETH **GANG PLOW.**



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